



State of Ohio Environmental Protection Agency

REC'D: ARAQMD

Street Address:

Lazarus Gov. Center
50 West Town Street, Suite 700
Columbus, OH 43215

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

Mailing Address:

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

CERTIFIED MAIL

**RE: FINAL PERMIT TO INSTALL
MEDINA COUNTY
Application No: 16-02516
Fac ID: 1652040001**

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

DATE: 3/25/2008

Advance Bronze Inc
David Del Propost
139 Ohio St
Lodi, OH 44254

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

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

Sincerely,

Michael W. Ahern, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control

CC: USEPA

ARAQMD



**Permit To Install
Terms and Conditions**

**Issue Date: 3/25/2008
Effective Date: 3/25/2008**

FINAL PERMIT TO INSTALL 16-02516

Application Number: 16-02516
Facility ID: 1652040001
Permit Fee: **\$2000**
Name of Facility: Advance Bronze Inc
Person to Contact: David Del Propost
Address: 139 Ohio St
Lodi, OH 44254

Location of proposed air contaminant source(s) [emissions unit(s)]:
**139 Ohio St
Lodi, Ohio**

Description of proposed emissions unit(s):
Electric Induction Furnaces, Casting, Shakeout, for Bronze.

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

Chris Korleski
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 (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.)

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>
PE	20 (stack emissions)
Lead	0.12 (stack emissions)

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

A. Applicable Emissions Limitations and/or Control Requirements

- 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.

Operations, Property, and/or Equipment -(P002) - Furnace 1 with power supply

One of four independently operable, similar and at least physically united and located in close proximity to each other, electric induction-type bronze melting furnaces. Each furnace has a 1200 pounds/hour melt capacity. Total foundry melt capacity is 4800 pounds/hour, if all four furnaces were to operate simultaneously. Each furnace operates with only one power supply at a given time. The application reports three power supplies. For flexibility, this permit will assume four power supplies, and thus provide emissions limits for simultaneous operation of four furnaces. Besides an induction furnace, this emissions unit includes associated travel vent station over ladle and centrifugal casting station, all vented to a single baghouse common to emissions units P002 through P005 via close-capture hoods. This baghouse controls particulate emissions (PE) and emissions of metal fume, e.g., lead. Based on the application, this facility appears to be a natural minor source of all criteria and hazardous air pollutants.

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	Stack emissions from P002 through P005 combined shall not exceed 0.028 pound/hour and 0.12 ton/year of lead; and 20 tons/year of PE.
	The permittee shall properly install (or have properly installed), adjust, operate, and maintain a baghouse and associated equipment, as specified in the application, to adequately control PE and metal fume emissions, in accordance with the manufacturer's recommendations, instructions, and operating manuals, and to the extent possible with good engineering design.
	The metal feedstock melted in the furnaces shall be limited to alloy ingots and to recycled materials — wire, scrap castings, turnings, and similar sources of copper or bronze — that are free from excessive dirt, grease and oils.
	The requirements of OAC rule 3745-31-05(A)(3) also include compliance with the requirements of OAC rules 3745-17-07(A); 3745-17-07(B); 3745-17-08(B); 3745-17-11(B), and 3745-71-05.

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-17-07(A)	Visible PE from any stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
OAC rule 3745-17-07(B) (applicable only if this emissions unit is located in an area identified in Appendix A of OAC rule 3745-17-08)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
OAC rule 3745-17-08(B) (applicable only if this emissions unit is located in an area identified in Appendix A of OAC rule 3745-17-08)	The permittee shall employ hoods, ducts, fans and any other equipment necessary to adequately capture, enclose, contain and vent fugitive emissions to a baghouse. Such equipment shall be capable of eliminating or minimizing visible emissions at the point(s) of capture.
OAC rule 3745-17-11(B)	<p>Stack PE from P002 through P005 combined shall not exceed 4.6 pounds/hour (based upon Figure II, which is more stringent than Table I, and an uncontrolled mass rate of emission of 25 pounds/hour)</p> <p>Per Engineering Guide #31, P002 through P005 meet the criteria for similar process units that are either physically united; operationally united; or located in close proximity to each other. Thus, P002 through P005 shall be grouped together to establish the hourly stack PE limitation. Therefore, a combined P002 through P005 maximum capacity of 2.4 tons/hour of metal charged, multiplied by an uncontrolled emission factor of 10.3 pounds of PE/ton of metal charged (application data using a material balance approach), yields an uncontrolled mass rate of emission (UMRE) of PE from P002 through P005, combined, of 25 pounds/hour, and from Curve P-1 of Figure II, a maximum allowable stack emission rate of 4.6 pounds/hour of PE.</p>
OAC rule 3745-71-05	See E.1.b below.

2. Additional Terms and Conditions

- 2.a** The permittee shall apply for and, if required, obtain a final permit to install prior to equipment replacement or any proposed modification of equipment or production procedures, or any other change that would increase the potential emissions of any air pollutant.

B. Operational Restrictions

1. The permittee shall employ the baghouse serving this emissions unit at all times this emissions unit is in operation.
2. Except for an initial operating period after filter media replacement to attain design filtering efficiency, the pressure drop across the baghouse serving this emissions unit shall be maintained within the range of 2 to 8 inches of water, while the emissions unit is in operation.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall document when the baghouse serving this emissions unit was not in service when the emissions unit was in operation.
2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse serving this emissions unit, while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.
3. The permittee shall perform daily checks, when the emissions unit is in operation and when weather conditions allow, for any visible particulate emissions from the baghouse serving this emissions unit. The presence or absence of any visible particulate emissions from the baghouse shall be noted daily in an operations log. If visible particulate emissions are observed from the baghouse, the permittee shall also note the following in an operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the determined cause of the abnormal emissions if a cause can be determined upon investigation;
 - d. the total duration of the visible emissions incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
4. The permittee shall perform daily checks, when the emissions unit is in operation and when weather conditions allow, for any visible emissions of fugitive dust from the emissions unit. The presence or absence of any visible emissions of fugitive dust shall be noted daily in an operations log. If visible emissions of fugitive dust are observed, the permittee shall also note the following in an operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the determined cause of the abnormal emissions if a cause can be determined upon investigation;

- d. the total duration of the visible emissions incident; and
- e. any corrective actions taken to minimize or eliminate the visible emissions.

D. Reporting Requirements

1. The permittee shall notify the Director (the appropriate District Office or local air agency) in writing of any record showing that the baghouse serving this emissions unit was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (the appropriate District Office or local air agency) within 30 days after the event occurs.
2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse serving this emissions unit did not comply with the allowable range specified above. These reports are due by the dates described in Part 1 - General Terms and Conditions of this permit.
3. The permittee shall submit on a semiannual basis a report which (a) identifies all days during which any visible particulate emissions were observed from the baghouse and (b) describes the corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted by January 31 and July 31 of each year to the Director (District Office or local air agency).
4. The permittee shall submit on a semiannual basis a report which (a) identifies all days during which any visible emissions of fugitive dust were observed from the emissions unit and (b) describes the corrective actions taken to minimize or eliminate the visible emissions of fugitive dust. These reports shall be submitted by January 31 and July 31 of each year to the Director (District Office or local air agency).

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: Visible PE from any stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method: If required, compliance shall be determined by visible emission evaluations performed in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).
 - b. Emission Limitation: Visible emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method: If required, compliance shall be determined by visible emission evaluations performed in accordance with the requirements in 40

CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(3).

- c. Emission Limitation: Stack PE from P002 through P005 combined shall not exceed 4.6 pounds/hour and 20 tons/year.

Applicable Compliance Method: If required, compliance shall be determined in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 5 and the methods and procedures specified in OAC rule 3745-17-03(B)(10).

- d. Emission Limitation: Stack emissions from P002 through P005 combined shall not exceed 0.028 pound/hour and 0.12 ton/year of lead.

Applicable Compliance Method: If required, compliance shall be determined in accordance with the requirements specified in OAC rule 3745-71-05.

F. Miscellaneous Requirements

- 1. Modeling to demonstrate compliance with the "Toxic Air Contaminant Statute" in ORC 3704.03(F)(4)(b) was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

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.

Operations, Property, and/or Equipment - (P003) - Furnace 2 with power supply

One of four independently operable, similar and at least physically united and located in close proximity to each other, electric induction-type bronze melting furnaces. Each furnace has a 1200 pounds/hour melt capacity. Total foundry melt capacity is 4800 pounds/hour, if all four furnaces were to operate simultaneously. Each furnace operates with only one power supply at a given time. The application reports three power supplies. For flexibility, this permit will assume four power supplies, and thus provide emissions limits for simultaneous operation of four furnaces. Besides an induction furnace, this emissions unit includes associated travel vent station over ladle and centrifugal casting station, all vented to a single baghouse common to emissions units P002 through P005 via close-capture hoods. This baghouse controls particulate emissions (PE) and emissions of metal fume, e.g., lead. Based on the application, this facility appears to be a natural minor source of all criteria and hazardous air pollutants.

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	<p>Stack emissions from P002 through P005 combined shall not exceed 0.028 pound/hour and 0.12 ton/year of lead; and 20 tons/year of PE.</p> <p>The permittee shall properly install (or have properly installed), adjust, operate, and maintain a baghouse and associated equipment, as specified in the application, to adequately control PE and metal fume emissions, in accordance with the manufacturer's recommendations, instructions, and operating manuals, and to the extent possible with good engineering design.</p> <p>The metal feedstock melted in the furnaces shall be limited to alloy ingots and to recycled materials — wire, scrap castings, turnings, and similar sources of copper or bronze — that are free from excessive dirt, grease and oils.</p> <p>The requirements of OAC rule 3745-31-05(A)(3) also include compliance with the requirements of OAC rules 3745-17-07(A); 3745-17-07(B); 3745-17-08(B); 3745-17-11(B), and 3745-71-05.</p>
OAC rule 3745-17-07(A)	<p>Visible PE from any stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.</p>

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-17-07(B) (applicable only if this emissions unit is located in an area identified in Appendix A of OAC rule 3745-17-08)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
OAC rule 3745-17-08(B) (applicable only if this emissions unit is located in an area identified in Appendix A of OAC rule 3745-17-08)	The permittee shall employ hoods, ducts, fans and any other equipment necessary to adequately capture, enclose, contain and vent fugitive emissions to a baghouse. Such equipment shall be capable of eliminating or minimizing visible emissions at the point(s) of capture.
OAC rule 3745-17-11(B)	Stack PE from P002 through P005 combined shall not exceed 4.6 pounds/hour (based upon Figure II, which is more stringent than Table I, and an uncontrolled mass rate of emission of 25 pounds/hour)
OAC rule 3745-71-05	Per Engineering Guide #31, P002 through P005 meet the criteria for similar process units that are either physically united; operationally united; or located in close proximity to each other. Thus, P002 through P005 shall be grouped together to establish the hourly stack PE limitation. Therefore, a combined P002 through P005 maximum capacity of 2.4 tons/hour of metal charged, multiplied by an uncontrolled emission factor of 10.3 pounds of PE/ton of metal charged (application data using a material balance approach), yields an uncontrolled mass rate of emission (UMRE) of PE from P002 through P005, combined, of 25 pounds/hour, and from Curve P-1 of Figure II, a maximum allowable stack emission rate of 4.6 pounds/hour of PE.
OAC rule 3745-71-05	See E.1.b below.

2. Additional Terms and Conditions

- 2.a The permittee shall apply for and, if required, obtain a final permit to install prior to equipment replacement or any proposed modification of equipment or production procedures, or any other change that would increase the potential emissions of any air pollutant.

B. Operational Restrictions

1. The permittee shall employ the baghouse serving this emissions unit at all times this emissions unit is in operation.

2. Except for an initial operating period after filter media replacement to attain design filtering efficiency, the pressure drop across the baghouse serving this emissions unit shall be maintained within the range of 2 to 8 inches of water, while the emissions unit is in operation.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall document when the baghouse serving this emissions unit was not in service when the emissions unit was in operation.
2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse serving this emissions unit, while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.
3. The permittee shall perform daily checks, when the emissions unit is in operation and when weather conditions allow, for any visible particulate emissions from the baghouse serving this emissions unit. The presence or absence of any visible particulate emissions from the baghouse shall be noted daily in an operations log. If visible particulate emissions are observed from the baghouse, the permittee shall also note the following in an operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the determined cause of the abnormal emissions if a cause can be determined upon investigation;
 - d. the total duration of the visible emissions incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
4. The permittee shall perform daily checks, when the emissions unit is in operation and when weather conditions allow, for any visible emissions of fugitive dust from the emissions unit. The presence or absence of any visible emissions of fugitive dust shall be noted daily in an operations log. If visible emissions of fugitive dust are observed, the permittee shall also note the following in an operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the determined cause of the abnormal emissions if a cause can be determined upon investigation;
 - d. the total duration of the visible emissions incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

D. Reporting Requirements

1. The permittee shall notify the Director (the appropriate District Office or local air agency) in writing of any record showing that the baghouse serving this emissions unit was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (the appropriate District Office or local air agency) within 30 days after the event occurs.
2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse serving this emissions unit did not comply with the allowable range specified above. These reports are due by the dates described in Part 1 - General Terms and Conditions of this permit.
3. The permittee shall submit on a semiannual basis a report which (a) identifies all days during which any visible particulate emissions were observed from the baghouse and (b) describes the corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted by January 31 and July 31 of each year to the Director (District Office or local air agency).
4. The permittee shall submit on a semiannual basis a report which (a) identifies all days during which any visible emissions of fugitive dust were observed from the emissions unit and (b) describes the corrective actions taken to minimize or eliminate the visible emissions of fugitive dust. These reports shall be submitted by January 31 and July 31 of each year to the Director (District Office or local air agency).

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: Visible PE from any stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method: If required, compliance shall be determined by visible emission evaluations performed in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).
 - b. Emission Limitation: Visible emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method: If required, compliance shall be determined by visible emission evaluations performed in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(3).

- c. Emission Limitation: Stack PE from P002 through P005 combined shall not exceed 4.6 pounds/hour and 20 tons/year.

Applicable Compliance Method: If required, compliance shall be determined in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 5 and the methods and procedures specified in OAC rule 3745-17-03(B)(10).

- d. Emission Limitation: Stack emissions from P002 through P005 combined shall not exceed 0.028 pound/hour and 0.12 ton/year of lead.

Applicable Compliance Method: If required, compliance shall be determined in accordance with the requirements specified in OAC rule 3745-71-05.

F. Miscellaneous Requirements

- 1. Modeling to demonstrate compliance with the "Toxic Air Contaminant Statute" in ORC 3704.03(F)(4)(b) was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

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.

Operations, Property, and/or Equipment -(P004) - Furnace 3 with power supply

One of four independently operable, similar and at least physically united and located in close proximity to each other, electric induction-type bronze melting furnaces. Each furnace has a 1200 pounds/hour melt capacity. Total foundry melt capacity is 4800 pounds/hour, if all four furnaces were to operate simultaneously. Each furnace operates with only one power supply at a given time. The application reports three power supplies. For flexibility, this permit will assume four power supplies, and thus provide emissions limits for simultaneous operation of four furnaces. Besides an induction furnace, this emissions unit includes associated travel vent station over ladle and centrifugal casting station, all vented to a single baghouse common to emissions units P002 through P005 via close-capture hoods. This baghouse controls particulate emissions (PE) and emissions of metal fume, e.g., lead. Based on the application, this facility appears to be a natural minor source of all criteria and hazardous air pollutants.

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	Stack emissions from P002 through P005 combined shall not exceed 0.028 pound/hour and 0.12 ton/year of lead; and 20 tons/year of PE.
OAC rule 3745-17-07(A)	The permittee shall properly install (or have properly installed), adjust, operate, and maintain a baghouse and associated equipment, as specified in the application, to adequately control PE and metal fume emissions, in accordance with the manufacturer's recommendations, instructions, and operating manuals, and to the extent possible with good engineering design. The metal feedstock melted in the furnaces shall be limited to alloy ingots and to recycled materials — wire, scrap castings, turnings, and similar sources of copper or bronze — that are free from excessive dirt, grease and oils. The requirements of OAC rule 3745-31-05(A)(3) also include compliance with the requirements of OAC rules 3745-17-07(A); 3745-17-07(B); 3745-17-08(B); 3745-17-11(B), and 3745-71-05.
	Visible PE from any stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-17-07(B) (applicable only if this emissions unit is located in an area identified in Appendix A of OAC rule 3745-17-08)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
OAC rule 3745-17-08(B) (applicable only if this emissions unit is located in an area identified in Appendix A of OAC rule 3745-17-08)	The permittee shall employ hoods, ducts, fans and any other equipment necessary to adequately capture, enclose, contain and vent fugitive emissions to a baghouse. Such equipment shall be capable of eliminating or minimizing visible emissions at the point(s) of capture.
OAC rule 3745-17-11(B)	<p>Stack PE from P002 through P005 combined shall not exceed 4.6 pounds/hour (based upon Figure II, which is more stringent than Table I, and an uncontrolled mass rate of emission of 25 pounds/hour)</p> <p>Per Engineering Guide #31, P002 through P005 meet the criteria for similar process units that are either physically united; operationally united; or located in close proximity to each other. Thus, P002 through P005 shall be grouped together to establish the hourly stack PE limitation. Therefore, a combined P002 through P005 maximum capacity of 2.4 tons/hour of metal charged, multiplied by an uncontrolled emission factor of 10.3 pounds of PE/ton of metal charged (application data using a material balance approach), yields an uncontrolled mass rate of emission (UMRE) of PE from P002 through P005, combined, of 25 pounds/hour, and from Curve P-1 of Figure II, a maximum allowable stack emission rate of 4.6 pounds/hour of PE.</p>
OAC rule 3745-71-05	See E.1.b below.

2. Additional Terms and Conditions

- 2.a The permittee shall apply for and, if required, obtain a final permit to install prior to equipment replacement or any proposed modification of equipment or production procedures, or any other change that would increase the potential emissions of any air pollutant.

B. Operational Restrictions

1. The permittee shall employ the baghouse serving this emissions unit at all times this emissions unit is in operation.

2. Except for an initial operating period after filter media replacement to attain design filtering efficiency, the pressure drop across the baghouse serving this emissions unit shall be maintained within the range of 2 to 8 inches of water, while the emissions unit is in operation.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall document when the baghouse serving this emissions unit was not in service when the emissions unit was in operation.
2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse serving this emissions unit, while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.
3. The permittee shall perform daily checks, when the emissions unit is in operation and when weather conditions allow, for any visible particulate emissions from the baghouse serving this emissions unit. The presence or absence of any visible particulate emissions from the baghouse shall be noted daily in an operations log. If visible particulate emissions are observed from the baghouse, the permittee shall also note the following in an operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the determined cause of the abnormal emissions if a cause can be determined upon investigation;
 - d. the total duration of the visible emissions incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
4. The permittee shall perform daily checks, when the emissions unit is in operation and when weather conditions allow, for any visible emissions of fugitive dust from the emissions unit. The presence or absence of any visible emissions of fugitive dust shall be noted daily in an operations log. If visible emissions of fugitive dust are observed, the permittee shall also note the following in an operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the determined cause of the abnormal emissions if a cause can be determined upon investigation;
 - d. the total duration of the visible emissions incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

D. Reporting Requirements

1. The permittee shall notify the Director (the appropriate District Office or local air agency) in writing of any record showing that the baghouse serving this emissions unit was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (the appropriate District Office or local air agency) within 30 days after the event occurs.
2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse serving this emissions unit did not comply with the allowable range specified above. These reports are due by the dates described in Part 1 - General Terms and Conditions of this permit.
3. The permittee shall submit on a semiannual basis a report which (a) identifies all days during which any visible particulate emissions were observed from the baghouse and (b) describes the corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted by January 31 and July 31 of each year to the Director (District Office or local air agency).
4. The permittee shall submit on a semiannual basis a report which (a) identifies all days during which any visible emissions of fugitive dust were observed from the emissions unit and (b) describes the corrective actions taken to minimize or eliminate the visible emissions of fugitive dust. These reports shall be submitted by January 31 and July 31 of each year to the Director (District Office or local air agency).

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: Visible PE from any stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method: If required, compliance shall be determined by visible emission evaluations performed in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).
 - b. Emission Limitation: Visible emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method: If required, compliance shall be determined by visible emission evaluations performed in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(3).

- c. Emission Limitation: Stack PE from P002 through P005 combined shall not exceed 4.6 pounds/hour and 20 tons/year.

Applicable Compliance Method: If required, compliance shall be determined in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 5 and the methods and procedures specified in OAC rule 3745-17-03(B)(10).

- d. Emission Limitation: Stack emissions from P002 through P005 combined shall not exceed 0.028 pound/hour and 0.12 ton/year of lead.

Applicable Compliance Method: If required, compliance shall be determined in accordance with the requirements specified in OAC rule 3745-71-05.

F. Miscellaneous Requirements

1. Modeling to demonstrate compliance with the "Toxic Air Contaminant Statute" in ORC 3704.03(F)(4)(b) was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

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

A. Applicable Emissions Limitations and/or Control Requirements

- 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.

Operations, Property, and/or Equipment -(P005) - Furnace 4 with power supply

One of four independently operable, similar and at least physically united and located in close proximity to each other, electric induction-type bronze melting furnaces. Each furnace has a 1200 pounds/hour melt capacity. Total foundry melt capacity is 4800 pounds/hour, if all four furnaces were to operate simultaneously. Each furnace operates with only one power supply at a given time. The application reports three power supplies. For flexibility, this permit will assume four power supplies, and thus provide emissions limits for simultaneous operation of four furnaces. Besides an induction furnace, this emissions unit includes associated travel vent station over ladle and centrifugal casting station, all vented to a single baghouse common to emissions units P002 through P005 via close-capture hoods. This baghouse controls particulate emissions (PE) and emissions of metal fume, e.g., lead. Based on the application, this facility appears to be a natural minor source of all criteria and hazardous air pollutants.

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	Stack emissions from P002 through P005 combined shall not exceed 0.028 pound/hour and 0.12 ton/year of lead; and 20 tons/year of PE.
	The permittee shall properly install (or have properly installed), adjust, operate, and maintain a baghouse and associated equipment, as specified in the application, to adequately control PE and metal fume emissions, in accordance with the manufacturer's recommendations, instructions, and operating manuals, and to the extent possible with good engineering design.
	The metal feedstock melted in the furnaces shall be limited to alloy ingots and to recycled materials — wire, scrap castings, turnings, and similar sources of copper or bronze — that are free from excessive dirt, grease and oils.
	The requirements of OAC rule 3745-31-05(A)(3) also include compliance with the requirements of OAC rules 3745-17-07(A); 3745-17-07(B); 3745-17-08(B); 3745-17-11(B), and 3745-71-05.
OAC rule 3745-17-07(A)	Visible PE from any stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-17-07(B) (applicable only if this emissions unit is located in an area identified in Appendix A of OAC rule 3745-17-08)	Visible emissions of fugitive dust shall not exceed 20% opacity, as a 3-minute average.
OAC rule 3745-17-08(B) (applicable only if this emissions unit is located in an area identified in Appendix A of OAC rule 3745-17-08)	The permittee shall employ hoods, ducts, fans and any other equipment necessary to adequately capture, enclose, contain and vent fugitive emissions to a baghouse. Such equipment shall be capable of eliminating or minimizing visible emissions at the point(s) of capture.
OAC rule 3745-17-11(B)	<p>Stack PE from P002 through P005 combined shall not exceed 4.6 pounds/hour (based upon Figure II, which is more stringent than Table I, and an uncontrolled mass rate of emission of 25 pounds/hour)</p> <p>Per Engineering Guide #31, P002 through P005 meet the criteria for similar process units that are either physically united; operationally united; or located in close proximity to each other. Thus, P002 through P005 shall be grouped together to establish the hourly stack PE limitation. Therefore, a combined P002 through P005 maximum capacity of 2.4 tons/hour of metal charged, multiplied by an uncontrolled emission factor of 10.3 pounds of PE/ton of metal charged (application data using a material balance approach), yields an uncontrolled mass rate of emission (UMRE) of PE from P002 through P005, combined, of 25 pounds/hour, and from Curve P-1 of Figure II, a maximum allowable stack emission rate of 4.6 pounds/hour of PE.</p>
OAC rule 3745-71-05	See E.1.b below.

2. Additional Terms and Conditions

- 2.a** The permittee shall apply for and, if required, obtain a final permit to install prior to equipment replacement or any proposed modification of equipment or production procedures, or any other change that would increase the potential emissions of any air pollutant.

B. Operational Restrictions

- 1.** The permittee shall employ the baghouse serving this emissions unit at all times this emissions unit is in operation.

2. Except for an initial operating period after filter media replacement to attain design filtering efficiency, the pressure drop across the baghouse serving this emissions unit shall be maintained within the range of 2 to 8 inches of water, while the emissions unit is in operation.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall document when the baghouse serving this emissions unit was not in service when the emissions unit was in operation.
2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse serving this emissions unit, while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.
3. The permittee shall perform daily checks, when the emissions unit is in operation and when weather conditions allow, for any visible particulate emissions from the baghouse serving this emissions unit. The presence or absence of any visible particulate emissions from the baghouse shall be noted daily in an operations log. If visible particulate emissions are observed from the baghouse, the permittee shall also note the following in an operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the determined cause of the abnormal emissions if a cause can be determined upon investigation;
 - d. the total duration of the visible emissions incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
4. The permittee shall perform daily checks, when the emissions unit is in operation and when weather conditions allow, for any visible emissions of fugitive dust from the emissions unit. The presence or absence of any visible emissions of fugitive dust shall be noted daily in an operations log. If visible emissions of fugitive dust are observed, the permittee shall also note the following in an operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the determined cause of the abnormal emissions if a cause can be determined upon investigation;
 - d. the total duration of the visible emissions incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

D. Reporting Requirements

1. The permittee shall notify the Director (the appropriate District Office or local air agency) in writing of any record showing that the baghouse serving this emissions unit was not in service when the emissions unit was in operation. The notification shall include a copy of such record and shall be sent to the Director (the appropriate District Office or local air agency) within 30 days after the event occurs.
2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse serving this emissions unit did not comply with the allowable range specified above. These reports are due by the dates described in Part 1 - General Terms and Conditions of this permit.
3. The permittee shall submit on a semiannual basis a report which (a) identifies all days during which any visible particulate emissions were observed from the baghouse and (b) describes the corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted by January 31 and July 31 of each year to the Director (District Office or local air agency).
4. The permittee shall submit on a semiannual basis a report which (a) identifies all days during which any visible emissions of fugitive dust were observed from the emissions unit and (b) describes the corrective actions taken to minimize or eliminate the visible emissions of fugitive dust. These reports shall be submitted by January 31 and July 31 of each year to the Director (District Office or local air agency).

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:** Visible PE from any stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method: If required, compliance shall be determined by visible emission evaluations performed in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(1).
 - b. **Emission Limitation:** Visible emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method: If required, compliance shall be determined by visible emission evaluations performed in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 9 and the methods and procedures specified in OAC rule 3745-17-03(B)(3).

- c. Emission Limitation: Stack PE from P002 through P005 combined shall not exceed 4.6 pounds/hour and 20 tons/year.

Applicable Compliance Method: If required, compliance shall be determined in accordance with the requirements in 40 CFR Part 60, Appendix A, Method 5 and the methods and procedures specified in OAC rule 3745-17-03(B)(10).

- d. Emission Limitation: Stack emissions from P002 through P005 combined shall not exceed 0.028 pound/hour and 0.12 ton/year of lead.

Applicable Compliance Method: If required, compliance shall be determined in accordance with the requirements specified in OAC rule 3745-71-05.

F. Miscellaneous Requirements

- 1. Modeling to demonstrate compliance with the "Toxic Air Contaminant Statute" in ORC 3704.03(F)(4)(b) was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.