



State of Ohio Environmental Protection Agency

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

RE: FINAL PERMIT TO INSTALL

LORAIN COUNTY

Application No: 02-22809

Fac ID: 0247080759

DATE: 12/11/2007

National Bronze and Metals (Ohio), Inc.

Joao Saraiva

5311 West River Rd

Lorain, OH 44055

CERTIFIED MAIL

	TOXIC REVIEW
	PSD
	SYNTHETIC MINOR
	CEMS
	MACT
40 CFR Part 60, Subpart M	NSPS
	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT
	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

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 

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

CC: USEPA

NEDO



**Permit To Install
Terms and Conditions**

**Issue Date: 12/11/2007
Effective Date: 12/11/2007**

FINAL PERMIT TO INSTALL 02-22809

Application Number: 02-22809

Facility ID: 0247080759

Permit Fee: **\$1400**

Name of Facility: National Bronze and Metals (Ohio), Inc.

Person to Contact: Joao Saraiva

Address: 5311 West River Rd
Lorain, OH 44055

Location of proposed air contaminant source(s) [emissions unit(s)]:
**5311 West River Rd
Lorain, Ohio**

Description of proposed emissions unit(s):
7 electric induction bronze melting furnaces.

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>
particulate	50.9

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 - (P029) - Vertical induction melting furnace no. 1 equipped with a baghouse

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-02(A)	Particulate emissions shall be less than 10.0 tons/yr. See Section A.2.a.
OAC rule 3745-17-11(B)	Particulate emissions shall not exceed 1.85 lbs/hr. See Section A.2.b.
OAC rule 3745-17-07(A)(1)	The requirements established pursuant to OAC rule 3745-17-07(B)(1) are less stringent than the requirements established pursuant to 40 CFR Part 60, Subpart M.
40 CFR Part 60, Subpart M	Visible particulate emissions from the stack associated with this emissions unit shall not exceed 10 percent opacity, as a 6-minute average.

2. Additional Terms and Conditions

- 2.a Permit to Install 02-22809 for this air contaminant source takes into account the use of a baghouse system, whenever this air contaminant source is in operation, with a minimum control efficiency of 90%, by weight for particulate emissions, as a voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).
- 2.b The calculated uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs/hr. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(ii), Figure II of OAC rule 3745-17-11 does not apply. The particulate emission limitation of 1.85 lbs/hr was established in accordance with Table 1 of OAC rule 3745-17-11 using a maximum process weight rate of 0.304 ton/yr provided by the permittee in the permit application.

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 particulate emissions from the stack serving this emissions unit. The presence or absence of any visible 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 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 eliminate the visible emissions.

D. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emission unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA Northeast District Office 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 the terms and conditions of this permit shall be determined in accordance with the following methods:
 - a. Emission Limitation:

Particulate emissions shall be less than 10.0 tons/yr.

Applicable Compliance Method:

Demonstration of compliance with the allowable hourly particulate emission limitation of 1.85 lbs/hr ensures particulate emissions are less than 10.0 tons/yr.
 - b. Emission Limitation:

National Bronze and Metals (Ohio), Inc.

PTI Application: 02-22809

Issued: 12/11/2007

Facility ID: 0247080759

Emissions Unit ID: P029

Particulate emissions shall not exceed 1.85 lbs/hr.

Applicable Compliance Method:

- i. Compliance shall be determined using the following equation:

$$PE \text{ (lbs/hr)} = PWR \times 0.70 \text{ lb/ton} \times 1 \text{ ton}/2000 \text{ lbs}$$

Where

PE = the calculated particulate emission rate in lbs/hr;

PWR = the hourly process weight rate of materials entering the furnace, in lbs/hr, or the maximum process weight rate of 608 lbs/hr;

0.70 lb/ton = emission factor from AP-42, Section 12.9, Table 12.9-2 for emissions from electric induction furnaces utilizing brass and bronze controlled by a baghouse; and

1 ton/2000 lbs = conversion from tons to lbs.

- ii. If required, compliance shall be demonstrated in accordance with Method 5 as outlined in 40 CFR Part 60, Appendix A.

2. The permittee shall conduct, or have conducted, emission testing of the baghouse associated with this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 6 months of installation of new equipment.
 - b. The emissions testing shall be conducted to demonstrate compliance with the visible particulate emission limitation of 10 percent opacity, as a 6-minute average, from the stack associated with this emissions unit.
 - c. The emission test shall be conducted while the emissions unit is operating at normal or representative operating conditions. Prior to testing, the permittee shall propose to Ohio EPA Northeast District Office an operating scenario for the furnaces which is representative of actual operating conditions and particulate input rate to the baghouse.
 - d.. Compliance with the visible particulate emission limitation shall be determined in accordance with Method 9 in 40 CFR Part 60, Appendix A.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the

emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA Northeast District Office shall be permitted to witness the test(s) and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for submittal of the written report, where warranted, with prior approval from the Ohio EPA Northeast District Office.

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.

Operations, Property, and/or Equipment - (P030) - Vertical induction melting furnace no. 2 equipped with a baghouse

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-02(A)	Particulate emissions shall be less than 10.0 tons/yr. See Section A.2.a.
OAC rule 3745-17-11(B)	Particulate emissions shall not exceed 1.85 lbs/hr. See Section A.2.b.
OAC rule 3745-17-07(A)(1)	The requirements established pursuant to OAC rule 3745-17-07(B)(1) are less stringent than the requirements established pursuant to 40 CFR Part 60, Subpart M.
40 CFR Part 60, Subpart M	Visible particulate emissions from the stack associated with this emissions unit shall not exceed 10 percent opacity, as a 6-minute average.

2. Additional Terms and Conditions

- 2.a Permit to Install 02-22809 for this air contaminant source takes into account the use of a baghouse system, whenever this air contaminant source is in operation, with a minimum control efficiency of 90%, by weight for particulate emissions, as a voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).
- 2.b The calculated uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs/hr. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(ii), Figure II of OAC rule 3745-17-11 does not apply. The particulate emission limitation of 1.85 lbs/hr was established in accordance with Table 1 of OAC rule 3745-17-11 using a maximum process weight rate of 0.304 ton/yr provided by the permittee in the permit application.

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 particulate emissions from the stack serving this emissions unit. The presence or absence of any visible 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 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 eliminate the visible emissions.

D. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emission unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA Northeast District Office 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 the terms and conditions of this permit shall be determined in accordance with the following methods:
 - a. Emission Limitation:

Particulate emissions shall be less than 10.0 tons/yr.

Applicable Compliance Method:

Demonstration of compliance with the allowable hourly particulate emission limitation of 1.85 lbs/hr ensures particulate emissions are less than 10.0 tons/yr.

National Bronze and Metals (Ohio), Inc.

PTI Application: 02-22809

Issued: 12/11/2007

Facility ID: 0247080759

Emissions Unit ID: P030

b. Emission Limitation:

Particulate emissions shall not exceed 1.85 lbs/hr.

Applicable Compliance Method:

i. Compliance shall be determined using the following equation:

$$PE \text{ (lbs/hr)} = PWR \times 0.70 \text{ lb/ton} \times 1 \text{ ton}/2000 \text{ lbs}$$

Where

PE = the calculated particulate emission rate in lbs/hr;

PWR = the hourly process weight rate of materials entering the furnace, in lbs/hr, or the maximum process weight rate of 608 lbs/hr;

0.70 lb/ton = emission factor from AP-42, Section 12.9, Table 12.9-2 for emissions from electric induction furnaces utilizing brass and bronze controlled by a baghouse; and

1 ton/2000 lbs = conversion from tons to lbs.

ii. If required, compliance shall be demonstrated in accordance with Method 5 as outlined in 40 CFR Part 60, Appendix A.

2. The permittee shall conduct, or have conducted, emission testing of the baghouse associated with this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months of installation of new equipment.

b. The emissions testing shall be conducted to demonstrate compliance with the visible particulate emission limitation of 10 percent opacity, as a 6-minute average, from the stack associated with this emissions unit.

c. The emission test shall be conducted while the emissions unit is operating at normal or representative operating conditions. Prior to testing, the permittee shall propose to Ohio EPA Northeast District Office an operating scenario for the furnaces which is representative of actual operating conditions and particulate input rate to the baghouse.

d.. Compliance with the visible particulate emission limitation shall be determined in accordance with Method 9 in 40 CFR Part 60, Appendix A.

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

Personnel from the Ohio EPA Northeast District Office shall be permitted to witness the test(s) and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for submittal of the written report, where warranted, with prior approval from the Ohio EPA Northeast District Office.

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.

Operations, Property, and/or Equipment - (P031) - Vertical induction melting furnace no. 3 equipped with a baghouse

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-02(A)	Particulate emissions shall be less than 10.0 tons/yr. See Section A.2.a.
OAC rule 3745-17-11(B)	Particulate emissions shall not exceed 1.85 lbs/hr. See Section A.2.b.
OAC rule 3745-17-07(A)(1)	The requirements established pursuant to OAC rule 3745-17-07(B)(1) are less stringent than the requirements established pursuant to 40 CFR Part 60, Subpart M.
40 CFR Part 60, Subpart M	Visible particulate emissions from the stack associated with this emissions unit shall not exceed 10 percent opacity, as a 6-minute average.

2. Additional Terms and Conditions

- 2.a Permit to Install 02-22809 for this air contaminant source takes into account the use of a baghouse system, whenever this air contaminant source is in operation, with a minimum control efficiency of 90%, by weight for particulate emissions, as a voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).
- 2.b The calculated uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs/hr. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(ii), Figure II of OAC rule 3745-17-11 does not apply. The particulate emission limitation of 1.85 lbs/hr was established in accordance with Table 1 of OAC rule 3745-17-11 using a maximum process weight rate of 0.304 ton/yr provided by the permittee in the permit application.

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 particulate emissions from the stack serving this emissions unit. The presence or absence of any visible 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 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 eliminate the visible emissions.

D. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emission unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA Northeast District Office 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 the terms and conditions of this permit shall be determined in accordance with the following methods:
 - a. Emission Limitation:

Particulate emissions shall be less than 10.0 tons/yr.

Applicable Compliance Method:

Demonstration of compliance with the allowable hourly particulate emission limitation of 1.85 lbs/hr ensures particulate emissions are less than 10.0 tons/yr.
 - b. Emission Limitation:

National Bronze and Metals (Ohio), Inc.

PTI Application: 02-22809

Issued: 12/11/2007

Facility ID: 0247080759

Emissions Unit ID: P031

Particulate emissions shall not exceed 1.85 lbs/hr.

Applicable Compliance Method:

- i. Compliance shall be determined using the following equation:

$$PE \text{ (lbs/hr)} = PWR \times 0.70 \text{ lb/ton} \times 1 \text{ ton}/2000 \text{ lbs}$$

Where

PE = the calculated particulate emission rate in lbs/hr;

PWR = the hourly process weight rate of materials entering the furnace, in lbs/hr, or the maximum process weight rate of 608 lbs/hr;

0.70 lb/ton = emission factor from AP-42, Section 12.9, Table 12.9-2 for emissions from electric induction furnaces utilizing brass and bronze controlled by a baghouse; and

1 ton/2000 lbs = conversion from tons to lbs.

- ii. If required, compliance shall be demonstrated in accordance with Method 5 as outlined in 40 CFR Part 60, Appendix A.
2. The permittee shall conduct, or have conducted, emission testing of the baghouse associated with this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 6 months of installation of new equipment.
 - b. The emissions testing shall be conducted to demonstrate compliance with the visible particulate emission limitation of 10 percent opacity, as a 6-minute average, from the stack associated with this emissions unit.
 - c. The emission test shall be conducted while the emissions unit is operating at normal or representative operating conditions. Prior to testing, the permittee shall propose to Ohio EPA Northeast District Office an operating scenario for the furnaces which is representative of actual operating conditions and particulate input rate to the baghouse.
 - d.. Compliance with the visible particulate emission limitation shall be determined in accordance with Method 9 in 40 CFR Part 60, Appendix A.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the

emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA Northeast District Office shall be permitted to witness the test(s) and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for submittal of the written report, where warranted, with prior approval from the Ohio EPA Northeast District Office.

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.

Operations, Property, and/or Equipment - (P032) - Horizontal induction melting furnace no. 4 equipped with a baghouse

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-02(A)	Particulate emissions shall be less than 10.0 tons/yr. See Section A.2.a.
OAC rule 3745-17-11(B)	Particulate emissions shall not exceed 1.52 lbs/hr. See Section A.2.b.
OAC rule 3745-17-07(A)(1)	The requirements established pursuant to OAC rule 3745-17-07(B)(1) are less stringent than the requirements established pursuant to 40 CFR Part 60, Subpart M.
40 CFR Part 60, Subpart M	Visible particulate emissions from the stack associated with this emissions unit shall not exceed 10 percent opacity, as a 6-minute average.

2. Additional Terms and Conditions

- 2.a Permit to Install 02-22809 for this air contaminant source takes into account the use of a baghouse system, whenever this air contaminant source is in operation, with a minimum control efficiency of 90%, by weight for particulate emissions, as a voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).
- 2.b The calculated uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs/hr. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(ii), Figure II of OAC rule 3745-17-11 does not apply. The particulate emission limitation of 1.52 lbs/hr was established in accordance with Table 1 of OAC rule 3745-17-11 using a maximum process weight rate of 0.0.228 ton/yr provided by the permittee in the permit application.

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 particulate emissions from the stack serving this emissions unit. The presence or absence of any visible 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 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 eliminate the visible emissions.

D. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emission unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA Northeast District Office 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 the terms and conditions of this permit shall be determined in accordance with the following methods:
 - a. Emission Limitation:

Particulate emissions shall be less than 10.0 tons/yr.

Applicable Compliance Method:

Demonstration of compliance with the allowable hourly particulate emission limitation of 1.52 lbs/hr ensures particulate emissions are less than 10.0 tons/yr.
 - b. Emission Limitation:

National Bronze and Metals (Ohio), Inc.

PTI Application: 02-22809

Issued: 12/11/2007

Facility ID: 0247080759

Emissions Unit ID: P032

Particulate emissions shall not exceed 1.52 lbs/hr.

Applicable Compliance Method:

- i. Compliance shall be determined using the following equation:

$$PE \text{ (lbs/hr)} = PWR \times 0.70 \text{ lb/ton} \times 1 \text{ ton}/2000 \text{ lbs}$$

Where

PE = the calculated particulate emission rate in lbs/hr;

PWR = the hourly process weight rate of materials entering the furnace, in lbs/hr, or the maximum process weight rate of 456 lbs/hr;

0.70 lb/ton = emission factor from AP-42, Section 12.9, Table 12.9-2 for emissions from electric induction furnaces utilizing brass and bronze controlled by a baghouse; and

1 ton/2000 lbs = conversion from tons to lbs.

- ii. If required, compliance shall be demonstrated in accordance with Method 5 as outlined in 40 CFR Part 60, Appendix A.

2. The permittee shall conduct, or have conducted, emission testing of the baghouse associated with this emissions unit in accordance with the following requirements:
- a. The emission testing shall be conducted within 6 months of installation of new equipment.
 - b. The emissions testing shall be conducted to demonstrate compliance with the visible particulate emission limitation of 10 percent opacity, as a 6-minute average, from the stack associated with this emissions unit.
 - c. The emission test shall be conducted while the emissions unit is operating at normal or representative operating conditions. Prior to testing, the permittee shall propose to Ohio EPA Northeast District Office an operating scenario for the furnaces which is representative of actual operating conditions and particulate input rate to the baghouse.
 - d.. Compliance with the visible particulate emission limitation shall be determined in accordance with Method 9 in 40 CFR Part 60, Appendix A.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the

emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA Northeast District Office shall be permitted to witness the test(s) and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for submittal of the written report, where warranted, with prior approval from the Ohio EPA Northeast District Office.

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.

Operations, Property, and/or Equipment - (P033) - Horizontal induction melting furnace no. 5 equipped with a baghouse

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-02(A)	Particulate emissions shall be less than 10.0 tons/yr. See Section A.2.a.
OAC rule 3745-17-11(B)	Particulate emissions shall not exceed 1.52 lbs/hr. See Section A.2.b.
OAC rule 3745-17-07(A)(1)	The requirements established pursuant to OAC rule 3745-17-07(B)(1) are less stringent than the requirements established pursuant to 40 CFR Part 60, Subpart M.
40 CFR Part 60, Subpart M	Visible particulate emissions from the stack associated with this emissions unit shall not exceed 10 percent opacity, as a 6-minute average.

2. Additional Terms and Conditions

- 2.a Permit to Install 02-22809 for this air contaminant source takes into account the use of a baghouse system, whenever this air contaminant source is in operation, with a minimum control efficiency of 90%, by weight for particulate emissions, as a voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).
- 2.b The calculated uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs/hr. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(ii), Figure II of OAC rule 3745-17-11 does not apply. The particulate emission limitation of 1.52 lbs/hr was established in accordance with Table 1 of OAC rule 3745-17-11 using a maximum process weight rate of 0.0.228 ton/yr provided by the permittee in the permit application.

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 particulate emissions from the stack serving this emissions unit. The presence or absence of any visible 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 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 eliminate the visible emissions.

D. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emission unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA Northeast District Office 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 the terms and conditions of this permit shall be determined in accordance with the following methods:
 - a. Emission Limitation:

Particulate emissions shall be less than 10.0 tons/yr.

Applicable Compliance Method:

Demonstration of compliance with the allowable hourly particulate emission limitation of 1.52 lbs/hr ensures particulate emissions are less than 10.0 tons/yr.
 - b. Emission Limitation:

National Bronze and Metals (Ohio), Inc.

PTI Application: 02-22809

Issued: 12/11/2007

Facility ID: 0247080759

Emissions Unit ID: P033

Particulate emissions shall not exceed 1.52 lbs/hr.

Applicable Compliance Method:

- i. Compliance shall be determined using the following equation:

$$PE \text{ (lbs/hr)} = PWR \times 0.70 \text{ lb/ton} \times 1 \text{ ton/2000 lbs}$$

Where

PE = the calculated particulate emission rate in lbs/hr;

PWR = the hourly process weight rate of materials entering the furnace, in lbs/hr, or the maximum process weight rate of 456 lbs/hr;

0.70 lb/ton = emission factor from AP-42, Section 12.9, Table 12.9-2 for emissions from electric induction furnaces utilizing brass and bronze controlled by a baghouse; and

1 ton/2000 lbs = conversion from tons to lbs.

- ii. If required, compliance shall be demonstrated in accordance with Method 5 as outlined in 40 CFR Part 60, Appendix A.

- 2. The permittee shall conduct, or have conducted, emission testing of the baghouse associated with this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 6 months of installation of new equipment.
 - b. The emissions testing shall be conducted to demonstrate compliance with the visible particulate emission limitation of 10 percent opacity, as a 6-minute average, from the stack associated with this emissions unit.
 - c. The emission test shall be conducted while the emissions unit is operating at normal or representative operating conditions. Prior to testing, the permittee shall propose to Ohio EPA Northeast District Office an operating scenario for the furnaces which is representative of actual operating conditions and particulate input rate to the baghouse.
 - d.. Compliance with the visible particulate emission limitation shall be determined in accordance with Method 9 in 40 CFR Part 60, Appendix A.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the

emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA Northeast District Office shall be permitted to witness the test(s) and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for submittal of the written report, where warranted, with prior approval from the Ohio EPA Northeast District Office.

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.

Operations, Property, and/or Equipment - (P034) - Horizontal induction melting furnace no. 6 equipped with a baghouse

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-02(A)	Particulate emissions shall be less than 10.0 tons/yr. See Section A.2.a.
OAC rule 3745-17-11(B)	Particulate emissions shall not exceed 1.52 lbs/hr. See Section A.2.b.
OAC rule 3745-17-07(A)(1)	The requirements established pursuant to OAC rule 3745-17-07(B)(1) are less stringent than the requirements established pursuant to 40 CFR Part 60, Subpart M.
40 CFR Part 60, Subpart M	Visible particulate emissions from the stack associated with this emissions unit shall not exceed 10 percent opacity, as a 6-minute average.

2. Additional Terms and Conditions

- 2.a Permit to Install 02-22809 for this air contaminant source takes into account the use of a baghouse system, whenever this air contaminant source is in operation, with a minimum control efficiency of 90%, by weight for particulate emissions, as a voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).
- 2.b The calculated uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs/hr. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(ii), Figure II of OAC rule 3745-17-11 does not apply. The particulate emission limitation of 1.52 lbs/hr was established in accordance with Table 1 of OAC rule 3745-17-11 using a maximum process weight rate of 0.0.228 ton/yr provided by the permittee in the permit application.

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 particulate emissions from the stack serving this emissions unit. The presence or absence of any visible 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 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 eliminate the visible emissions.

D. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emission unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA Northeast District Office 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 the terms and conditions of this permit shall be determined in accordance with the following methods:
 - a. Emission Limitation:

Particulate emissions shall be less than 10.0 tons/yr.

Applicable Compliance Method:

Demonstration of compliance with the allowable hourly particulate emission limitation of 1.52 lbs/hr ensures particulate emissions are less than 10.0 tons/yr.
 - b. Emission Limitation:

National Bronze and Metals (Ohio), Inc.

PTI Application: 02-22809

Issued: 12/11/2007

Facility ID: 0247080759

Emissions Unit ID: P034

Particulate emissions shall not exceed 1.52 lbs/hr.

Applicable Compliance Method:

- i. Compliance shall be determined using the following equation:

$$PE \text{ (lbs/hr)} = PWR \times 0.70 \text{ lb/ton} \times 1 \text{ ton}/2000 \text{ lbs}$$

Where

PE = the calculated particulate emission rate in lbs/hr;

PWR = the hourly process weight rate of materials entering the furnace, in lbs/hr, or the maximum process weight rate of 456 lbs/hr;

0.70 lb/ton = emission factor from AP-42, Section 12.9, Table 12.9-2 for emissions from electric induction furnaces utilizing brass and bronze controlled by a baghouse; and

1 ton/2000 lbs = conversion from tons to lbs.

- ii. If required, compliance shall be demonstrated in accordance with Method 5 as outlined in 40 CFR Part 60, Appendix A.

2. The permittee shall conduct, or have conducted, emission testing of the baghouse associated with this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 6 months of installation of new equipment.
 - b. The emissions testing shall be conducted to demonstrate compliance with the visible particulate emission limitation of 10 percent opacity, as a 6-minute average, from the stack associated with this emissions unit.
 - c. The emission test shall be conducted while the emissions unit is operating at normal or representative operating conditions. Prior to testing, the permittee shall propose to Ohio EPA Northeast District Office an operating scenario for the furnaces which is representative of actual operating conditions and particulate input rate to the baghouse.
 - d.. Compliance with the visible particulate emission limitation shall be determined in accordance with Method 9 in 40 CFR Part 60, Appendix A.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the

emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA Northeast District Office shall be permitted to witness the test(s) and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for submittal of the written report, where warranted, with prior approval from the Ohio EPA Northeast District Office.

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.

Operations, Property, and/or Equipment - (P035) - Horizontal induction melting furnace no. 7 equipped with a baghouse

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-02(A)	Particulate emissions shall be less than 10.0 tons/yr. See Section A.2.a.
OAC rule 3745-17-11(B)	Particulate emissions shall not exceed 1.52 lbs/hr. See Section A.2.b.
OAC rule 3745-17-07(A)(1)	The requirements established pursuant to OAC rule 3745-17-07(B)(1) are less stringent than the requirements established pursuant to 40 CFR Part 60, Subpart M.
40 CFR Part 60, Subpart M	Visible particulate emissions from the stack associated with this emissions unit shall not exceed 10 percent opacity, as a 6-minute average.

2. Additional Terms and Conditions

- 2.a Permit to Install 02-22809 for this air contaminant source takes into account the use of a baghouse system, whenever this air contaminant source is in operation, with a minimum control efficiency of 90%, by weight for particulate emissions, as a voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3).
- 2.b The calculated uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs/hr. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(ii), Figure II of OAC rule 3745-17-11 does not apply. The particulate emission limitation of 1.52 lbs/hr was established in accordance with Table 1 of OAC rule 3745-17-11 using a maximum process weight rate of 0.0.228 ton/yr provided by the permittee in the permit application.

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 particulate emissions from the stack serving this emissions unit. The presence or absence of any visible 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 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 eliminate the visible emissions.

D. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emission unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA Northeast District Office 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 the terms and conditions of this permit shall be determined in accordance with the following methods:
 - a. Emission Limitation:

Particulate emissions shall be less than 10.0 tons/yr.

Applicable Compliance Method:

Demonstration of compliance with the allowable hourly particulate emission limitation of 1.52 lbs/hr ensures particulate emissions are less than 10.0 tons/yr.
 - b. Emission Limitation:

National Bronze and Metals (Ohio), Inc.

PTI Application: 02-22809

Issued: 12/11/2007

Facility ID: 0247080759

Emissions Unit ID: P035

Particulate emissions shall not exceed 1.52 lbs/hr.

Applicable Compliance Method:

- i. Compliance shall be determined using the following equation:

$$PE \text{ (lbs/hr)} = PWR \times 0.70 \text{ lb/ton} \times 1 \text{ ton}/2000 \text{ lbs}$$

Where

PE = the calculated particulate emission rate in lbs/hr;

PWR = the hourly process weight rate of materials entering the furnace, in lbs/hr, or the maximum process weight rate of 456 lbs/hr;

0.70 lb/ton = emission factor from AP-42, Section 12.9, Table 12.9-2 for emissions from electric induction furnaces utilizing brass and bronze controlled by a baghouse; and

1 ton/2000 lbs = conversion from tons to lbs.

- ii. If required, compliance shall be demonstrated in accordance with Method 5 as outlined in 40 CFR Part 60, Appendix A.
2. The permittee shall conduct, or have conducted, emission testing of the baghouse associated with this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 6 months of installation of new equipment.
 - b. The emissions testing shall be conducted to demonstrate compliance with the visible particulate emission limitation of 10 percent opacity, as a 6-minute average, from the stack associated with this emissions unit.
 - c. The emission test shall be conducted while the emissions unit is operating at normal or representative operating conditions. Prior to testing, the permittee shall propose to Ohio EPA Northeast District Office an operating scenario for the furnaces which is representative of actual operating conditions and particulate input rate to the baghouse.
 - d.. Compliance with the visible particulate emission limitation shall be determined in accordance with Method 9 in 40 CFR Part 60, Appendix A.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the

emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA Northeast District Office shall be permitted to witness the test(s) and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for submittal of the written report, where warranted, with prior approval from the Ohio EPA Northeast District Office.

F. Miscellaneous Requirements

None

SIC CODE 3366 SCC CODE 3-04-002-24 EMISSIONS UNIT ID P029

EMISSIONS UNIT DESCRIPTION Vertical induction melting furnace no. 1 equipped with a baghouse

DATE INSTALLED 11/2008

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter		0.18 lbs/hr	0.53	1.85 lbs/hr	<10
PM ₁₀					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? 40 CFR Part 60, Subpart M PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination NA

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? No

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

National Bronze and Metals (Ohio), Inc.
PTI Application: 02-22809
Issued: 12/11/2007

Facility ID: 0247080759

AIR TOXICS MODELING PERFORMED*? _____ YES NO

IDENTIFY THE AIR CONTAMINANTS: _____

SIC CODE 3366 SCC CODE 3-04-002-24 EMISSIONS UNIT ID P030

EMISSIONS UNIT DESCRIPTION Vertical induction melting furnace no. 2 equipped with a baghouse

DATE INSTALLED 11/2008

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter		0.18 lb/hr	0.53	1.85 lbs/hr	<10
PM ₁₀					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? **40 CFR Part 60, Subpart M** PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination NA

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? No

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$ _____

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

National Bronze and Metals (Ohio), Inc.
PTI Application: 02-22809
Issued: 12/11/2007

Facility ID: 0247080759

AIR TOXICS MODELING PERFORMED*? _____ YES x NO

IDENTIFY THE AIR CONTAMINANTS: _____

National Bronze and Metals (Ohio), Inc.
 PTI Application: 02-22809
 Issued: 12/11/2007

Facility ID: 0247080759

SIC CODE 3366 SCC CODE 3-04-002-24 EMISSIONS UNIT ID P031

EMISSIONS UNIT DESCRIPTION Vertical induction melting furnace no. 3 equipped with a baghouse

DATE INSTALLED 11/2008

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter		0.18 lb/hr	0.53	1.85 lbs/hr	<10
PM ₁₀					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? 40 CFR Part 60, Subpart M PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination NA

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? No

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

National Bronze and Metals (Ohio), Inc.
PTI Application: 02-22809
Issued: 12/11/2007

Facility ID: 0247080759

AIR TOXICS MODELING PERFORMED*? _____ YES x NO

IDENTIFY THE AIR CONTAMINANTS: _____

SIC CODE 3366 SCC CODE 3-04-002-24 EMISSIONS UNIT ID P032
 EMISSIONS UNIT DESCRIPTION Horizontal induction melting furnace no. 4 equipped with a baghouse
 DATE INSTALLED 11/2008

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter		0.105 lb/hr	0.309	1.52 lbs/hr	<10
PM ₁₀					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? **40 CFR Part 60, Subpart M** PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination NA

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? No

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$ _____

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

National Bronze and Metals (Ohio), Inc.
PTI Application: 02-22809
Issued: 12/11/2007

Facility ID: 0247080759

AIR TOXICS MODELING PERFORMED*? _____ YES x NO

IDENTIFY THE AIR CONTAMINANTS: _____

SIC CODE 3366 SCC CODE 3-04-002-24 EMISSIONS UNIT ID P033

EMISSIONS UNIT DESCRIPTION Horizontal induction melting furnace no. 5 equipped with a baghouse

DATE INSTALLED 11/2008

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter		0.105 lb/hr	0.309	1.52 lbs/hr	<10
PM ₁₀					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? 40 CFR Part 60, Subpart M PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination NA

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? No

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

TOXIC AIR CONTAMINANTS

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AIR TOXICS MODELING PERFORMED*? _____ YES x NO

IDENTIFY THE AIR CONTAMINANTS: _____

SIC CODE 3366 SCC CODE 3-04-002-24 EMISSIONS UNIT ID P034

EMISSIONS UNIT DESCRIPTION Horizontal induction melting furnace no. 6 equipped with a baghouse

DATE INSTALLED 11/2008

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter		0.105 lb/hr	0.309	1.52 lbs/hr	<10
PM ₁₀					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? **40 CFR Part 60, Subpart M** PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination NA

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? No

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$ _____

TOXIC AIR CONTAMINANTS

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AIR TOXICS MODELING PERFORMED*? _____ YES x NO

IDENTIFY THE AIR CONTAMINANTS: _____

SIC CODE 3366 SCC CODE 3-04-002-24 EMISSIONS UNIT ID P035

EMISSIONS UNIT DESCRIPTION Horizontal induction melting furnace no. 7 equipped with a baghouse

DATE INSTALLED 11/2008

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter		0.105 lb/hr	0.309	1.52 lbs/hr	<10
PM ₁₀					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? **40 CFR Part 60, Subpart M** PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination NA

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? No

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$ _____

TOXIC AIR CONTAMINANTS

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0247080759

AIR TOXICS MODELING PERFORMED*? _____ YES NO

IDENTIFY THE AIR CONTAMINANTS: _____