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

1/4/2013

Certified Mail

DALE RAGAZINSKAS
FEDERAL METAL CO
7250 DIVISION ST.
BEDFORD, OH 44146

No	TOXIC REVIEW
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
Yes	NSPS
No	NESHAPS
No	NETTING
No	MODELING SUBMITTED
No	SYNTHETIC MINOR TO AVOID TITLE V
No	FEDERALLY ENFORCABLE PTIO (FEPTIO)
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 1318400068
Permit Number: P0110233
Permit Type: Renewal
County: Cuyahoga

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install and Operate (PTIO) which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

How to appeal this permit

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

Environmental Review Appeals Commission
77 South High Street, 17th Floor
Columbus, OH 43215

How to save money, reduce pollution and reduce energy consumption

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: www.ohioairquality.org/clean_air

How to give us feedback on your permitting experience

Please complete a survey at www.epa.ohio.gov/dapc/permitsurvey.aspx and give us feedback on your permitting experience. We value your opinion.

How to get an electronic copy of your permit

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

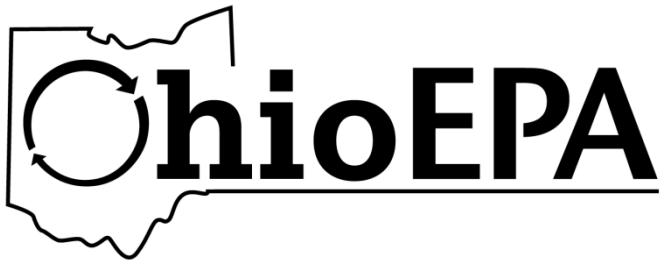
If you have any questions, please contact Cleveland Division of Air Quality at (216)664-2297or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,

Michael W. Ahern

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

Cc: CDAQ



FINAL

Division of Air Pollution Control
Permit-to-Install and Operate
for
FEDERAL METAL CO

Facility ID:	1318400068
Permit Number:	P0110233
Permit Type:	Renewal
Issued:	1/4/2013
Effective:	1/4/2013
Expiration:	1/4/2023

Division of Air Pollution Control
Permit-to-Install and Operate
for
FEDERAL METAL CO

Table of Contents

Authorization

Facility ID: 1318400068
Application Number(s): A0044402
Permit Number: P0110233
Permit Description: PTIO renewal for a secondary non-ferrous metals smelting/refining operation which is a batch process with multiple charge and melt cycles operated at two natural gas-fired rocking furnaces (P001 and P007) and two electrical induction furnaces (P005 and P006), with all emissions units vented simultaneously to either one or both of two baghouse control systems.
Permit Type: Renewal
Permit Fee: $0.00
Issue Date: 1/4/2013
Effective Date: 1/4/2013
Expiration Date: 1/4/2023
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

FEDERAL METAL CO
7250 DIVISION ST
OAKWOOD VILLAGE, OH 44146

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

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

Cleveland Division of Air Quality
2nd Floor
75 Erieview Plaza
Cleveland, OH 44114
(216)664-2297

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s))listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the described emissions unit(s) will operate in compliance with applicable State and federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Scott J. Nally
Director

Authorization (continued)

Permit Number: P0110233
Permit Description: PTIO renewal for a secondary non-ferrous metals smelting/refining operation which is a batch process with multiple charge and melt cycles operated at two natural gas-fired rocking furnaces (P001 and P007) and two electrical induction furnaces (P005 and P006), with all emissions units vented simultaneously to either one or both of two baghouse control systems.

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

Emissions Unit ID:	**P001**
Company Equipment ID:	Rotary brass/bronze scrap melting furnace #1 (F1)
Superseded Permit Number:	P0095702
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P007**
Company Equipment ID:	ROTARY MELTING FURNACE
Superseded Permit Number:	13-04700
General Permit Category and Type:	Not Applicable

Group Name: Two (2) - 3,350 lbs/hr EIFs

Emissions Unit ID:	**P005**
Company Equipment ID:	Ingot Manufacturing, Electric Furnace E-1
Superseded Permit Number:	P0095702
General Permit Category andType:	Not Applicable
Emissions Unit ID:	**P006**
Company Equipment ID:	Ingot Manufacturing, Electric Furnace E-2
Superseded Permit Number:	P0095702
General Permit Category andType:	Not Applicable

A. Standard Terms and Conditions

1. What does this permit-to-install and operate ("PTIO") allow me to do?

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

2. Who is responsible for complying with this permit?

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

3. What records must I keep under this permit?

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

4. What are my permit fees and when do I pay them?

There are two fees associated with permitted air contaminant sources in Ohio:

- PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

  You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

- Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. Unless otherwise specified, facilities subject to one or more synthetic minor restrictions must use Ohio EPA's "Air Services" to submit annual emissions associated with this permit requirement.Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

5. When does my PTIO expire, and when do I need to submit my renewal application?

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is

very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is takenby Ohio EPA on the renewal application.

6. What happens to this permit if my project is delayed or I do not install or modify my source?

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

7. What reports must I submit under this permit?

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.

10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Cleveland Division of Air Quality in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

12. What happens if one or more emissions units operated under this permit is/are shut down permanently?

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting[1] a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emissions unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

[1] Permittees that use Ohio EPA's "Air Services" can mark the affected emissions unit(s) as "permanently shutdown" in the facility profile along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).

13. Can I transfer this permit to a new owner or operator?

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

15. What happens if a portion of this permit is determined to be invalid?

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.

B. Facility-Wide Terms and Conditions

1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

   a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

      (1) None.

   b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

      (1) B.2.

2. The following emissions units contained in this permit are subject to 40 CFR Part 63, Subpart TTTTTT, National Emissions Standards for Hazardous Air Pollutants (NESHAP) from National Emission Standards for Hazardous Air Pollutants for Secondary Nonferrous Metals Processing Area Sources: P001 & P005 - P007. The complete NESHAP requirements, including the Subpart A General Provisions, may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website at http:// www.ecfr.gov or by contacting the Cleveland Division of Air Quality (CDAQ).

   The permittee must comply with all applicable requirements of 40 CFR Part 63, Subpart TTTTTT. The permittee shall also comply with all applicable requirements of 40 CFR Part 63, Subpart TTTTTT (General Provisions) as identified in Table 1 to Subpart TTTTTT, Part 63 of 40 CFR. Compliance with all applicable requirements shall be achieved by the dates set forth in 40 CFR Part 63, Subpart TTTTTT, and Subpart A.

C. Emissions Unit Terms and Conditions

1. P001, Rotary brass/bronze scrap melting furnace #1 (F1)

Operations, Property and/or Equipment Description:

12.0 MM BTU/hr natural gas-fired rocking furnace (F-1) melting brass and bronze scrap metal, at a maximum production rate of 9,000 lbs/hr, including flux, controlled by a shaker baghouse and/or pulse baghouse

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) from the exhaust of the baghouse shall not exceed 20 percent opacity, as a six-minute average, during any sixty-minute observation period.
b.	OAC rule 3745-17-07(B)(1)	Fugitive visible particulate emissions from roof vents and openings which house the emissions unit shall not exceed 20 percent opacity, as a three-minute average, during any sixty-minute observation period.
c.	OAC rule 3745-17-08(B)	Reasonably available control measures must be employed sufficiently to minimize or eliminate visible emissions of fugitive

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		dust. See b)(2)a. below.
d.	OAC rule 3745-17-11(B)	Particulate Emissions (PE) from stack shall not exceed 11.2 lbs/hour.
e.	40 CFR Part 60, Subpart M	See b)(2)b. below.

(2) Additional Terms and Conditions

a. The permittee shall install and use hoods, fans, or other equipment to adequately enclose, contain, capture, vent and sufficiently minimize or eliminate fugitive dust.

b. This subpart does not apply, because P001 was installed in 1972.

c) Operational Restrictions

(1) In order to insure the adequacy of the baghouse emission control systems (shaker baghouse and/or pulse baghouse) for furnaces F-1 (P001), F-3 (P007), E-1 (P005), and E-2 (P006) during their charging, melting, and tapping cycles, the permittee shall not operate this furnace, F-1 (P001), simultaneously with furnace F-3 (P007), E-1 (P005) and/or E-2 (P006) while venting emissions to only one of the baghouse emission control systems (shaker baghouse or pulse baghouse), so as to maintain adequate draft at the hood and to capture all visible emissions generated during the charging, melting, and tapping cycles. The following acceptable operating furnace and baghouse combinations are summarized below:

a. Venting to one baghouse (shaker or pulse) or both baghouses simultaneously:

F-1 (P001) Stand Alone;

F-3 (P007) Stand Alone;

E-1 (P005) Stand Alone;

E-2 (P006) Stand Alone;

F-1 (P001) and F-3 (P007);

F-1 (P001), and E-1 (P005) and/or E-2 (P006);

F-3 (P007), and E-1 (P005) and/or E-2 (P006); or

E-1 (P005) and E-2 (P006).

b. Venting to both baghouses simultaneously only

F-1 (P001), F-3 (P007), E-1 (P005), and/or E-2(P006).

d) Monitoring and/or Recordkeeping Requirements

(1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the Shaker baghouse and Pulse baghouse are 4.0 to 11.0 inches of water and 1.0 to 6.0 inches of water, respectively.

(2) The permittee shall properly operate, and maintain equipment to continuously monitor the pressure drop in inches of water, across the Shaker baghouse and Pulse baghouse during operation of this emissions unit, including periods of startup and shutdown. 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 in inches of water, across the Shaker baghouse and Pulse baghouse on a once per shift basis.

(3) Whenever the monitored value for the pressure drop deviates from the ranges specified above, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

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

f. a description of the corrective action;

g. the date corrective action was completed;

h. the date and time the deviation ended;

i. the total period of time (in minutes) during which there was a deviation;

j. the pressure drop readings immediately after the corrective action was implemented; and

k. the name(s) of the personnel who performed the work.

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

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

(4) The permittee shall inspect the baghouse for leaks and visible emissions of fugitive dust at least once a month during operation periods. Records of such inspections shall include at a minimum the date the inspection was conducted, any and all results obtained, any problems discovered, and any corrective action taken.

e) Reporting Requirements

(1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Cleveland Division of Air Quality (Cleveland DAQ) by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit. It is recommended that the PER is submitted electronically through the Ohio EPA's "e-Business Center: Air Services" although PERs can be submitted via U.S. postal service or can be hand delivered.

(2) The permittee shall identify in the annual permit evaluation report the following information concerning the operations of each baghouse during the 12-month reporting period for these emissions units:

a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;

d. each incident of deviation described in "a" where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emissions Limitation:
PE shall not exceed 11.2 lbs/hr at maximum operation rate of 9000 lbs/hr.

Applicable Compliance Method(s):
If required, compliance with the mass emission limitation shall be demonstrated by using Methods 1- 5 as outlined in 40 CFR Part 60, Appendix A.

b. Emission Limitation:
Visible emissions from the exhaust of the baghouse shall not exceed 20 percent opacity, as a six-minute average, during any sixty-minute observation period.

Applicable Compliance Method:
Compliance shall be determined through visible emission observation performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures in OAC rule 3745-17-03(B)(1).

c. Emission Limitation:
Visible fugitive emissions from roof vents and openings which house the emissions unit shall not exceed 20 percent opacity, as a three-minute average, during any sixty-minute observation period.

Applicable Compliance Method:
Compliance shall be determined through visible emission observation performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures in OAC rule 3745-17-03(B)(3). The points of observation for visible emissions shall include any non-stack points from the building housing this emissions unit. Such points shall include, but are not limited to, doorways, windows, and roof monitors.

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months prior to permit expiration.

b. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission limit for particulate emissions (pounds per hour and gr/dscf) from emissions units P001, P005, P006, and P007 while being vented to the Shaker and Pulse baghouses simultaneously. The individual pound per hour allowable emissions limitation from each emissions unit (P001, P005, P006, and P007) operating during the emissions test shall be summed and compared with

the test(s) results for the emissions units controlled by the Shaker and Pulse baghouses simultaneously in order to determine compliance with the pound per hour limitation for P001, provided that all emissions units operating during the emission test controlled by the Shaker and Pulse baghouses are operating at or near their maximum capacities.

U.S. EPA Methods 1 through 5 of 40 CFR Part 60, Appendix A shall be employed to demonstrate compliance with the allowable mass emission rate for particulate emissions.

U.S. EPA Method 9 of 40 CFR Part 60, Appendix A and the procedures in OAC rule 3745-17-03(B)(1) and (B) (3) shall be employed to demonstrate compliance with the allowable visible particulate emission limitation.

c. Alternative U.S. EPA approved test methods may be used with the prior approval from the Ohio EPA or Cleveland DAQ.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

e. No later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

f. Personnel from the Cleveland DAQ shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

g. 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 Cleveland DAQ within 30 days following completion of the test(s).

g) Miscellaneous Requirements

(1) P001 was installed on 1/1/1972.

(2) Stack test was performed on 5/30/2012 [P001, P005, P006 and P007] and emission rates were determined to be PE 0.1099 lb/hr(0.00024 gr/dscf) from Shaker Baghouse and 0.0792 lb/hr (0.00018 gr/dscf) from Pulsejet Baghouse, and 0% opacity.

2. P007, ROTARY MELTING FURNACE

Operations, Property and/or Equipment Description:

Rocking Furnace F-3 rated at 8.0MM BTU/hr using an oxy-fuel burner to melt brass and bronze scrap metal, at a maximum production rate of 6,000 lbs/hr and controlled by shaker baghouse and/or pulse baghouse.

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (Modified PTI 13-04700, issued on 3/22/2007)	Particulate emissions (PE/PM_{10}) from stack shall not exceed 0.022 grain/dscf, 3.50 lbs/hr and 15.33 tons per year. Fugitive PE/PM_{10} emissions shall not exceed 5.04 TPY. See b)(2)a. below. Visible particulate emissions from the exhaust of the baghouse shall not exceed 10 percent opacity, as a six-minute average, during any sixty-minute observation period. Fugitive visible particulate emissions from roof vents and openings which house the emissions unit shall not exceed 10

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		percent opacity, as a six-minute average, during any sixty-minute observation period.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001 PTI 13-03968 issued 6/6/2002	Pb emissions shall not exceed 0.15 lb/hr 0.46 tpy from stack, and 0.13 tpyfugitive. CO emissions, from stack, shall not exceed 0.66 lb/hr, 2.09 tpy. NO_x emissions, from stack, shall not exceed 0.78 lb/hr, 2.49 tpy. See b)(2)c. below.
c.	OAC rule 3745-31-05(A)(3)(ii), as effective 3/22/2007	See b)(2)d. below.
d.	OAC rule 3745-17-07(A)	The visible particulate emission limitation established by this rule is less stringent than the visible particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
e.	OAC rule 3745-17-07 (B)(1)	The fugitive visible particulate emission limitation established by this rule is less stringent than the fugitive visible particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
f.	OAC rule 3745-17-08(B)	Reasonably available control measures must be employed sufficiently to minimize or eliminate visible emissions of fugitive dust. See b)(2)b. below.
g.	OAC rule 3745-17-11(B)	The particulate emission limitation established by this rule is less stringent than the particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
h.	40 CFR Part 60, Subpart M	The particulate emission limitation established by this rule is equivalent to particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

a. In order to insure the adequacy of the baghouse emission control systems (shaker baghouse and/or pulse baghouse) for furnaces F-1 (P001), F-3 (P007), E-1 (P005), and E-2 (P006) during their charging, melting, and tapping cycles, the permittee shall not operate this furnace, F-3 (P007), simultaneously with furnace F-1 (P001), E-1 (P005) and/or E-2 (P006) while venting emissions to only one of the baghouse emission control systems (shaker baghouse or pulse baghouse), so as to maintain adequate draft at the hood and to capture all visible emissions generated during the charging, melting, and tapping cyclesin accordance with the BAT requirements of OAC rule 3745-31-05(A)(3) (Modified PTI 13-04700, issued on 3/22/2007). The following acceptable operating furnace and baghouse combinations are summarized below:

i. Venting to one baghouse (shaker or pulse) or both baghouses simultaneously:

F-1 (P001) Stand Alone;

F-3 (P007) Stand Alone;

E-1 (P005) Stand Alone;

E-2 (P006) Stand Alone;

F-1 (P001) and F-3 (P007);

F-1 (P001), and E-1 (P005) and/or E-2 (P006);

F-3 (P007), and E-1 (P005) and/or E-2 (P006); or

E-1 (P005) and E-2 (P006)

ii. Venting to both baghouses simultaneously only:

F-1 (P001), F-3 (P007), E-1 (P005), and/or E-2(P006).

b. The permittee shall install and use hoods, fans, or other equipment to adequately enclose, contain, capture, vent and sufficiently minimize or eliminate fugitive dust in accordance with the RACM requirements of OAC rule 3745-17-08(B).

c. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutant less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plant (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1,

2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

d. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the CO, OC, SO_2, and NOx from this air contaminant source since the uncontrolled potential to emit for CO, OC, SO_2, and NOx is less than 10 tons/yr.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall properly operate, and maintain equipment to continuously monitor the pressure drop in inches of water, across the Shaker baghouse and Pulse baghouse during operation of this emissions unit, including periods of startup and shutdown. 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 in inches of water, across the Shaker baghouse and Pulse baghouse on a once per shift basis.

(2) Whenever the monitored value for the pressure drop deviates from the ranges specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

a. the date and time the deviation began and the magnitude of the deviation at that time; and

b. the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

(3) In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable ranges specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the identity of baghouse, the pressure drop readings immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

(4) The acceptable range for the pressure drop across the shaker baghouse is 4.0 to 11.0 inches of water.

(5) The acceptable range for the pressure drop across the pulse baghouseis 1.0 to 6.0 inches of water.

(6) These ranges are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Cleveland Division of Air Quality (Cleveland DAQ). The permittee may request revisions to the ranges based upon information obtained during future particulate emission tests that demonstrate compliance with the allowable particulate emission rate for this emissions unit. In addition, approved revisions to the ranges will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

(7) The permittee shall inspect the baghouse for leaks and visible particulate emissions at least once a month during operation periods. Records of such inspections shall include at a minimum the date the inspection was conducted, any and all results obtained, any problems discovered, and any corrective action taken.

e) Reporting Requirements

(1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Cleveland Division of Air Quality (Cleveland DAQ) by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit. It is recommended that the PER is submitted electronically through the Ohio EPA's "e-Business Center: Air Services" although PERs can be submitted via U.S. postal service or can be hand delivered.

(2) The permittee shall identify in the annual permit evaluation report the following information concerning the operations of each baghouse during the 12-month reporting period for these emissions units:

a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;

d. each incident of deviation described in "a" where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:
PE/PM10 shall not exceed 0.022 grain/dscf and 3.50 lbs/hr.

Applicable Compliance Method(s):
Compliance with the mass emission limitation shall be demonstrated by using Methods 1- 5 as outlined in 40 CFR Part 60, Appendix A.

b. Emission Limitation:
PE/PM10 shall not exceed 15.33 TPY.

Applicable Compliance Method:
The annual emission limitation (ton/year) was established by multiplying the short term (lb/hr) emission limitation by 8,760 hours of operation per year and dividing by 2,000 pounds per ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the short term emission limitation.

c. Emission Limitation:
Fugitive PE/PM_{10} shall not exceed 5.04 TPY.

Applicable Compliance Method:
The emission limitation was developed by multiplying the uncontrolled particulate emissions (57.5 lbs/hr) by one (1) minus the capture efficiency of the baghouse(s) (98%), (1-0.98), which equals 1.15 lbs/hr, and multiplying the lb/hr value by the maximum annual hours of operation (8,760) and divide by 2,000 lbs/ton.

d. Emission Limitation:

0.15 lb/hrPb

Applicable Compliance Method:

Compliance with the mass emission limitation shall be demonstrated by using Method 12 as outlined in 40 CFR Part 60, Appendix A.

e. Emission Limitation:

0.46 tpyPb

Applicable Compliance Method:

Multiply the lb/hr limitation by the annual hours of operation and divide by 2,000 lbs/ton.

f. Emission Limitation:

0.66 lb/hr of CO

Applicable Compliance Method(s):

To determine compliance use the emission factor (EF) for CO, 35.0 lbs/MM scf, taken from U.S. EPA AP-42 "Compilation of Air Pollutant Emission Factors," Section 1.4, Natural Gas Combustion, 7/98 in the following equation:

(MM scf/ hr) x (lb/MMscf) = lbs/hr of CO

Compliance with the above hourly CO limitation shall be determined by Method 10 of 40 CFR Part 60, Appendix A, if required by the Ohio EPA or Cleveland LAA.

g. Emission Limitation:

2.09 tpy of CO

Applicable Compliance Method:

Multiply the lb/hr limitation by the annual hours of operation and divide by 2,000 lbs/ton.

h. Emission Limitation:

0.78 lb/hr of NOx

Applicable Compliance Method(s):

To determine compliance use the emission factor (EF) for NOx, 100 lbs/MM scf, taken from U.S. EPA AP-42 "Compilation of Air Pollutant Emission Factors," Section 1.4, Natural Gas Combustion, 7/98 in the following equation:

(MM scf/ hr) x (lb/MMscf) = lbs/hr of NOx

Compliance with the above hourly NOx limitation shall be determined by Method 7 of 40 CFR Part 60, Appendix A, if required by the Ohio EPA or Cleveland LAA.

i. Emission Limitation:

2.49 tpyNOx

Applicable Compliance Method:

Multiply the lb/hr limitation by the annual hours of operation and dividing by 2,000 lbs/ton.

j. Emission Limitation:
Visible emissions from the exhaust of the baghouse shall not exceed 10 percent opacity, as a six-minute average, during any sixty-minute observation period.

Applicable Compliance Method:
Compliance shall be determined through visible emission observation performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures in OAC rule 3745-17-03(B)(1).

k. Emission Limitation:
Visible fugitive emissions from roof vents and openings which house the emissions unit shall not exceed 10 percent opacity, as a six-minute average, during any sixty-minute observation period.

Applicable Compliance Method:
Compliance shall be determined through visible emission observation performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures in OAC rule 3745-17-03(B)(3). The points of observation for visible emissions shall include any non-stack points from the building housing this emissions unit. Such points shall include, but are not limited to, doorways, windows, and roof monitors.

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months prior to permit expiration.

b. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission limit for particulate emissions (gr/dscf) from emissions unit P007 while being vented to the shaker and/or pulse baghouse(s).

c. The individual pound per hour allowable emissions limitation from each emissions unit (P001, P005, P006, and P007) operating during the emissions test shall be summed and compared with the test(s) results for the emissions units controlled by the shaker and pulse baghouses simultaneously in order to determine compliance with the pound per hour limitation for each emissions unit, provided that all emissions units operating during the emission test controlled by the shaker and pulse baghouses are operating at or near their maximum capacities

d. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission limit for particulate emissions (pounds per hour and gr/dscf) from this emissions unit while being vented to the shaker and/or pulse baghouse.

e. Prior to or during the emissions testing, the gas flow rates from each emissions unit, (P005 and P006 combined), vented into the Pulse and/or Shakerbaghouse(s) shall be measured.

f. The emission testing shall be performed in accordance with 40 CFR Part 60 Subpart M. The sample time and sample volume for each run shall be at least 120 minutes and 1.80 dscm (63.6 dscf).

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

U.S. EPA Methods 1 through 4 of 40 CFR Part 60, Appendix A;

U.S. EPA Method 5 of 40 CFR Part 60, Appendix A for particulates; and

U.S. EPA Method 9 of 40 CFR Part 60, Appendix A for opacity.

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

h. Compliance with the mass emissions limit for particulate and lead emissions shall be determined by multiplying the gas flow rate from F-3 (P007) (dscfm) by the measured grain loading at the exhaust from the baghouse (gr/dscfm) and multiplying the resulting value by 60 minutes per hour and dividing by 7,000 grains per pound.

i. The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified or approved by the Cleveland Division of Air Quality (Cleveland DAQ). Although this generally consists of operating the emissions unit at its maximum material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.

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

k. Personnel from the Cleveland DAQ shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

l. 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 Cleveland DAQ within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

g) Miscellaneous Requirements

(1) Stack testswere performed on 12/15/2003 and 7/23/2007 [P007] and 5/30/2012 [P001, P005, P006 and P007].Emission rates were determined to be: PE 0.74 lb/hr (0.0017 gr/dscf) and lead 0.0046 lb/hr (0.0000109 gr/dscf) from the 2003 test; PE 0.965850 lb/hr (0.001950 gr/dscf), lead 0.0015 lb/hr (4.12E-010 gr/dscf), and average opacity of0% from the 2007 test; and PE 0.1099 lb/hr (0.00024 gr/dscf) from Shaker Baghouse and 0.0792 lb/hr (0.00018 gr/dscf) from Pulsejet Baghouse, and 0% opacity from the 2012 stack test.

3. Emissions Unit Group -Two (2) - 3,350 lbs/hr ElFs: P005,P006,

EU ID	Operations, Property and/or Equipment Description
P005	4,000lbs/hr max, including flux, electric coreless induction furnace (E-1) for bronze scrap melting (E-1) controlled by a shaker baghouse and/or pulse baghouse
P006	4,000lbs/hr max,including flux, electric coreless induction furnace (E-2) for bronze scrap melting controlled by a shaker baghouse and/or pulse baghouse

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 13-2474 issued 6/24/1992	Particulate emissions (PE) (stack) shall not exceed 0.01 grain/dscf and 12.7 tons per year (TPY) (P005 and P006 combined) Visible particulate emissions from the exhaust of the baghouse shall not exceed 5 percent opacity, as a six-minute average, during any sixty-minute observation period.
b.	OAC rule 3745-17-07(A)	The visible particulate emission limitation established by this rule is less stringent than the visible particulate emission limitation established pursuant to OAC

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-07(B)(1)	Fugitive PE from roof vents and openings which house the emissions unit shall not exceed 20 percent opacity, as a three-minute average, during any sixty-minute observation period.
d.	OAC rule 3745-17-08(B)	Reasonably available control measures must be employed sufficiently to minimize or eliminate visible emissions of fugitive dust. See b)(2)a. below.
e	OAC rule 3745-17-11(B)	The particulate emission limitation established by this rule is less stringent than the particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
f.	40 CFR Part 60, Subpart M	The particulate emission limitation established by this rule is less stringent than the particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

a. The permittee shall install and use hoods, fans, or other equipment to adequately enclose, contain, capture, vent and sufficiently minimize or eliminate fugitive dust.

c) Operational Restrictions

(1) In order to insure the adequacy of the baghouse emission control systems (shaker baghouse and/or pulse baghouse) for furnaces F-1 (P001), F-3 (P007), E-1 (P005), and E-2 (P006) during their charging, melting, and tapping cycles, the permittee shall not operate furnace E-1 (P005), simultaneously with furnace F-1 (P001), F-3 (P007), and/or E-2 (P006), as well as furnace E-2 (P006), simultaneously with furnace F-1 (P001), F-3 (P007), and/or E-1 (P005)while venting emissions to only one of the baghouse emission control systems (shaker baghouse or pulse baghouse), so as to maintain adequate draft at the hood and to capture all visible emissions generated during the charging, melting, and tapping cycles. The following acceptable operating furnace and baghouse combinations are summarized below:

a. Venting to one baghouse (shaker or pulse) or both baghouses simultaneously

F-1 (P001) Stand Alone;

F-3 (P007) Stand Alone;

E-1 (P005) Stand Alone;

E-2 (P006) Stand Alone;

F-1 (P001) and F-3 (P007);

F-1 (P001), and E-1 (P005) and/or E-2 (P006);

F-3 (P007), and E-1 (P005) and/or E-2 (P006); or

E-1 (P005) and E-2 (P006)

b. Venting to both baghouses simultaneously only:

F-1 (P001), F-3 (P007), E-1 (P005), and/or E-2(P006).

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall properly operate, and maintain equipment to continuously monitor the pressure drop in inches of water, across the shaker baghouse and pulse baghouse during operation of this emissions unit, including periods of startup and shutdown. 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 in inches of water, across the shaker baghouse and pulse baghouse on a once per shift basis.

(2) Whenever the monitored value for the pressure drop deviates from the ranges specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

(3) In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable ranges specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the identity of baghouse, the pressure drop readings immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

(4) The acceptable ranges for the pressure drop across the shaker baghouse and pulse baghouse are 4.0 to 11.0 inches of water and 1.0 to 6.0 inches of water, respectively.

(5) These ranges are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Cleveland Division of Air Quality (Cleveland DAQ). The permittee may request revisions to the ranges based upon information obtained during future particulate emission tests that demonstrate compliance with the allowable particulate emission rate for this emissions unit. In addition, approved revisions to the ranges will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

(6) The permittee shall inspect the baghouse for leaks and visible emissions of fugitive dust at least once a month during operation periods. Records of such inspections shall include at a minimum the date the inspection was conducted, any and all results obtained, any problems discovered, and any corrective action taken.

e) Reporting Requirements

(1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Cleveland Division of Air Quality (Cleveland DAQ) by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit. It is recommended that the PER is submitted electronically through the Ohio EPA's "e-Business Center: Air Services" although PERs can be submitted via U.S. postal service or can be hand delivered.

(2) The permittee shall identify in the annual permit evaluation report the following information concerning the operations of each baghouse during the 12-month reporting period for these emissions units:

a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;

c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;

d. each incident of deviation described in "a" where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:
PE (stack) shall not exceed 0.01 grain/dscf

Applicable Compliance Method(s):
If required by Cleveland DAQ or Ohio EPA, compliance with the mass emission limitation shall be demonstrated by using Methods 1- 5 as outlined in 40 CFR Part 60, Appendix A.

b. Emission Limitation:
PE (stack) shall not exceed 12.7 TPY (P005 and P006 combined)

Applicable Compliance Method:
The annual emission limitation (ton/year) was established by multiplying the lbs/hr emissions rate from the 0.01 grains/dscf emission limitation by 8,760 hours of operation per year and dividing by 2,000 pounds per ton.

Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the short term emission limitation.
Lbs/hr emissions rate = 0.01 gr/dscf x flow rate (dscf/min) x 1/7,000 gr/lb x 60 min/hr

c. Emission Limitation:
Visible particulate emissions from the exhaust of the baghouse shall not exceed 5 percent opacity, as a six-minute average, during any sixty-minute observation period.

Applicable Compliance Method:
Compliance shall be determined through visible emission observation performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures in OAC rule 3745-17-03(B)(1).

d. Emission Limitation:
Fugitive visible particulate emissions from roof vents and openings which house the emissions unit shall not exceed 20 percent opacity, as a three-minute average, during any sixty-minute observation period.

Applicable Compliance Method:
Compliance shall be determined through visible emission observation performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures in OAC rule 3745-17-03(B)(3).

The points of observation for visible emissions shall include any non-stack points from the building housing this emissions unit. Such points shall include, but are not limited to, doorways, windows, and roof monitors.

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months prior to permit expiration.

b. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission limit for particulate emissions (gr/dscf) from each emissions unit while being vented to the shaker and/or pulse baghouse(s).

The individual pound per hour allowable emissions limitation from each emissions unit (P001, P005, P006, and P007) operating during the emissions test shall be summed and compared with the test(s) results for the emissions units controlled by the shaker and pulse baghouses simultaneously in order to determine compliance with the pound per hour limitation for each emissions unit, provided that all emissions units operating during the emission test controlled by the shaker and pulse baghouses are operating at or near their maximum capacities.

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

U.S. EPA Methods 1 through 4 of 40 CFR Part 60, Appendix A;

U.S. EPA Method 5 of 40 CFR Part 60, Appendix A for particulates.

U.S. EPA Method 9 of 40 CFR Part 60, Appendix A for opacity.

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

d. The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified or approved by the Cleveland DAQ. Although this generally consists of operating the emissions unit at its maximum material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.

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

f. Personnel from the Cleveland DAQ shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures

provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

g. 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 Cleveland DAQ within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland DAQ.

g) Miscellaneous Requirements

(1) Stack test was performed on 5/30/2012 [P001, P005, P006 and P007] and emission rates were determined to be PE 0.1099 lb/hr (0.00024 gr/dscf) from Shaker Baghouse and 0.0792 lb/hr (0.00018 gr/dscf) from Pulsejet Baghouse, and 0% opacity.