



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL  
ASHTABULA COUNTY**

**CERTIFIED MAIL**

Street Address:

122 S. Front Street

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center  
P.O. Box 1049

**Application No: 02-21680**

**Fac ID: 0204020036**

**DATE: 4/6/2006**

Foseco Metallurgical, Inc.  
Kevin Leone  
20200 Sheldon Road  
Cleveland, OH 44142

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

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

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

Sincerely,

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

CC: USEPA

NEDO



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**Permit To Install  
Terms and Conditions**

**Issue Date: 4/6/2006  
Effective Date: 4/6/2006**

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**FINAL PERMIT TO INSTALL 02-21680**

Application Number: 02-21680  
Facility ID: 0204020036  
Permit Fee: **\$6050**  
Name of Facility: Foseco Metallurgical, Inc.  
Person to Contact: Kevin Leone  
Address: 20200 Sheldon Road  
Cleveland, OH 44142

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**1100 Maple Avenue  
Conneaut, Ohio**

Description of proposed emissions unit(s):  
**Mixers, kilns, AFAX system, silos, Packaging, Ladle Liner Line - Shank and Tile Manufacturing.**

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Foseco Metallurgical, Inc.  
PTI Application: 02-21680  
Issued: 4/6/2006

Facility ID: 0204020036

## Part I - GENERAL TERMS AND CONDITIONS

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

#### 1. Compliance Requirements

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

#### 2. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

#### 3. Records Retention Requirements

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

#### 4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon

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**PTI Application: 02-21680**  
**Issued: 4/6/2006**

**Facility ID: 0204020036**

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)**

**Foseco Metallurgical, Inc.**  
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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.

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**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

Pollutant

Tons Per Year

**Foseco Metallurgical, Inc.**  
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PE/PM-10	80.18
Formaldehyde	6.57
Manganese	2.95
hexane	0.14
combined HAPs	9.81
Sulfur dioxide	0.09
OC	11.31
NOx	14.42
CO	12.11

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

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
<p>3000 cfm baghouse which exhausts inside the building</p> <p>P032 is the FOSCAST Eirich mixer operation as described below.</p>	
<p>Weigh stations, screw conveyor, and incline belt conveyor-bottom, venting to #4 dust collector, a 3000 cfm baghouse which exhausts outside the building</p>	<p>OAC rule 3745-31-05(A)(3)</p>
<p>Inline belt conveyor-top, surge hopper and Eirich mixer with a capacity of 3520 lbs/hour venting to #5 dust collector, a</p>	<p>OAC rule 3745-17-11(B) OAC rule 3745-17-07(A)</p> <p>OAC rule 3745-31-05(A)(3)</p>

OAC rule 3745-17-11(B)  
OAC rule 3745-17-07(A)(1)

Applicable Emissions  
Limitations/Control Measures

3745-17-07(A) are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A)(3).

0.03 grain PE/PM-10 per dscf of exhaust from the baghouse

0.77 lb PE/PM-10 per hour and 3.38 tons per year from each baghouse stack

0% visible emissions from the baghouse stack, as a six-minute average

The requirements established pursuant to OAC rules 3745-17-11(B) and 3745-17-07(A) are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A)(3).

0.03 grain PE/PM-10 per dscf of exhaust from the baghouse

0.77 lb PE/PM-10 per hour and 3.38 tpy

0% visible emissions from the baghouse stack, as a six-minute average

The requirements established pursuant to OAC rules 3745-17-11(B) and

**2. Additional Terms and Conditions**

2.a None

**B. Operational Restrictions**

1. The pressure drop across each baghouse shall be maintained within the range of 1 - 10 inches of water while the emissions unit is in operation. The listed pressure drop range applies at all times except following rebagging until sufficient filter cake is developed on the bags.

**C. Monitoring and/or Record keeping Requirements**

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across each baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop for each baghouse on a weekly basis.
2. 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 baghouse stack serving the weigh stations, screw conveyor, and incline belt conveyor-bottom. The permittee shall also perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving the baghouse for the inline belt conveyor-top, surge hopper and Eirich mixer. 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. the total duration of any visible emission incident; and
  - c. any corrective actions taken to eliminate the visible emissions.

Notwithstanding the frequency of reporting requirements specified above, the permittee may reduce the frequency of visual observations from daily to weekly for this emissions unit if the following conditions are met:

- a. for 1 full quarter the facility's visual observations indicate no visible emissions; and

- b. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to daily readings if any visible emissions are observed.

#### D. Reporting Requirements

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across either baghouse did not comply with the allowable range specified above.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from either stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northeast District Office) by January 31 and July 31 of each year and shall cover the previous 6-month periods.

#### E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation  
 0% visible emissions from each baghouse stack, as a six-minute average

Applicable Compliance Method

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

- b. Emission Limitation  
 0.77 lb PE/PM-10 per hour and 3.38 tons per year from each baghouse stack

Applicable Compliance Method

Compliance was determined on a one-time basis for each baghouse using the following equation:

$$0.03 \text{ gr/cf} \times 3000 \text{ cf/min} \times 60 \text{ min/hour} \times 1 \text{ lb/7000 gr} = 0.7714 \text{ lbs/hour}$$

$$0.7714 \text{ lbs/hour} \times 8760 \text{ hours/year} \times 1 \text{ ton/2000 lbs} = 3.38 \text{ tpy}$$

Compliance shall be determined using OAC rule 3745-17-03(B)(10), if requested.

- c. Emission Limitation  
0.03 grain PE/PM-10 per dscf from each baghouse stack

Applicable Compliance Method  
OAC rule 3745-17-03(B)(10), if requested

**F. Miscellaneous Requirements**

- 1. This permit replaces PTI No. 02-6118 for this emissions unit.

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

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P033 is the FOSCAST F mixer, including mixer loading, batch mixing and batch unloading vented to #3 dust collector, a 3000 cfm baghouse which exhausts outside the building	OAC rule 3745-31-05(A)(3)	0.03 grain PE/PM-10 per dscf from the baghouse stack  0.77 lb PE/PM-10 per hour and 3.38 ton per year from the baghouse stack  0% visible emissions from the baghouse stack, as a six-minute average
	OAC rule 3756-17-07(A) OAC rule 3745-17-11(B)	The requirements established pursuant to OAC rules 3745-17-07(A) and 3745-17-11(B) are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A)(3).

**2. Additional Terms and Conditions**

2.a None

**B. Operational Restrictions**

1. The pressure drop across the baghouse shall be maintained within the range of 1 - 10

inches of water while the emissions unit is in operation. The listed pressure drop range applies at all times except following rebagging until sufficient filter cake is developed on the bags.

### C. Monitoring and/or Record keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop on a weekly basis.
2. 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 baghouse 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. the total duration of any visible emission incident; and
  - c. any corrective actions taken to eliminate the visible emissions.

Notwithstanding the frequency of reporting requirements specified above, the permittee may reduce the frequency of visual observations from daily to weekly for this emissions unit if the following conditions are met:

- a. for 1 full quarter the facility's visual observations indicate no visible emissions; and
- b. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to daily readings if any visible emissions are observed.

### D. Reporting Requirements

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA,

Northeast District Office) by January 31 and July 31 of each year and shall cover the previous 6-month periods.

## E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation

0% visible emissions from the baghouse stack, as a six-minute average

Applicable Compliance Method

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

- b. Emission Limitation

0.77 lb PE/PM-10 per hour and 3.38 ton per year from the baghouse stack

Applicable Compliance Method

Compliance was determined on a one-time basis for each baghouse using the following equation:

$$0.03 \text{ gr/cf} \times 3000 \text{ cf/min} \times 60 \text{ min/hour} \times 1 \text{ lb/7000 grains} = 0.7714 \text{ lbs/hour}$$
$$0.7714 \text{ lbs/hour} \times 88760 \text{ hour/year} \times 1 \text{ ton/2000 lbs} = 3.39 \text{ tpy}$$

Compliance shall be determined using OAC rule 3745-17-03(B)(10), if requested.

- c. Emission Limitation

0.03 grain PE/PM-10 per dscf from each baghouse stack

Applicable Compliance Method

OAC rule 3745-17-03(B)(10), if requested

## F. Miscellaneous Requirements

1. This permit replaces PTI No. 02-6118 for this emissions unit.

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

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

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

<u>Operations, Property, and/or Equipment</u>	building	<u>Applicable Rules/Requirements</u>
P044 is the FOSCAST C mixer operation as described below.		
Feed hopper, feed screw conveyor, and incline belt conveyor-bottom, which vents to #2 dust collector, a 3000 cfm baghouse which exhausts outside the building		OAC rule 3745-31-05(A)(3)
		OAC rule 3745-17-07(A) OAC rule 3745-17-11(B)
C mixer with a capacity of 7500 lbs/hour which vents to #1 dust collector, a 3000 cfm baghouse which exhausts outside the		OAC rule 3745-31-05(A)(3)

Emissions Unit ID: P044

Applicable Emissions  
Limitations/Control Measures

than the requirements established pursuant to OAC rule 3745-31-05(A)(3).

OAC rule 3745-17-07(A)  
OAC rule 3745-17-11(B)

0.03 grain PE/PM-10 per dscf from the baghouse stack

0.77 lb PE/PM-10 per hour and 3.38 tons per year from the baghouse stack

0% visible emissions from the baghouse stack, as a six-minute average

The requirements established pursuant to OAC rules 3745-17-07(A) and 3745-17-11(B) are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A)(3).

0.03 grain PE/PM-10 per dscf from the baghouse stack

0.77 lb PE/PM-10 per hour and 3.38 tons per year from the baghouse stack

0% visible emissions from the baghouse stack, as a six-minute average

The requirements established pursuant to OAC rules 3745-17-07(A) and 3745-17-11(B) are less stringent

**2. Additional Terms and Conditions**

**2.a** None

**B. Operational Restrictions**

1. The pressure drop across each baghouse shall be maintained within the range of 1 - 10 inches of water while the emissions unit is in operation. The listed pressure drop range applies at all times except following rebagging until sufficient filter cake is developed on the bags.

**C. Monitoring and/or Record keeping Requirements**

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across each baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop on a weekly basis.
2. 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 baghouse stacks 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. the total duration of any visible emission incident; and
  - c. any corrective actions taken to eliminate the visible emissions.

Notwithstanding the frequency of reporting requirements specified above, the permittee may reduce the frequency of visual observations from daily to weekly for this emissions unit if the following conditions are met:

- a. for 1 full quarter the facility's visual observations indicate no visible emissions; and
- b. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to daily readings if any visible emissions are observed.

#### D. Reporting Requirements

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across either baghouse did not comply with the allowable range specified above.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from either of the baghouse stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northeast District Office) by January 31 and July 31 of each year and shall cover the previous 6-month periods. Should the facility opt to install a bag leak detector, this reporting requirement shall be vacated.

#### E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation  
0% visible emissions from each baghouse stack, as a six-minute average

Applicable Compliance Method

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

- b. Emission Limitation  
0.77 lb PE/PM-10 per hour and 3.38 ton per year from each baghouse stack

Applicable Compliance Method

Compliance was determined on a one-time basis for each baghouse using the following equation:

$$0.03 \text{ gr/cf} \times 3000 \text{ cf/min} \times 60 \text{ min/hour} \times 1 \text{ lb/7000 gr} = 0.7714 \text{ lbs/hour}$$

$$0.7714 \text{ lbs/hour} \times 8760 \text{ hours/year} \times 1 \text{ ton/2000 lbs} = 3.39 \text{ tpy}$$

Compliance shall be determined using OAC rule 3745-17-03(B)(10), if requested.

**Foseco Metallurgical, Inc.**  
**PTI Application: 02-21690**  
**Issue:**

**Facility ID: 0204020036**

**Emissions Unit ID: P044**

- c. Emission Limitation  
0.03 grain PE/PM-10 per dscf from each baghouse stack

**Fosec**  
**PTI A**  
**Issued: 4/6/2006**

Emissions Unit ID: **P044**

Applicable Compliance Method  
OAC rule 3745-17-03(B)(10), if requested

**F. Miscellaneous Requirements**

1. This permit replaces PTI No. 02-9368, issued August 30, 1995, for this emissions unit.

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

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P049 is the AFAX Granular Bulk Bagging and Spray Dryer Aux operation. This operation consists of a screener, an enclosed conveyor, a surge bin and the bulk sack fill station. This equipment vents to a 5000 acfm baghouse which exhausts inside the plant.	OAC rule 3745-31-05(A)(3)	0.03 grain PE/PM-10 per dcfm from the baghouse  1.29 lbs PE/PM-10 per hour and 5.63 tpy  0.08 lb manganese per hour and 0.37 tpy  0% visible emissions from the building openings in the vicinity of the baghouse, as a six-minute average
	OAC rule 3745-17-07(A) OAC rule 3745-17-11(B)	The requirements established pursuant to OAC rules 3745-17-07(A) and 3745-17-11(B) are less restrictive than the requirements established pursuant to

OAC rule  
3745-31-05  
(A)(3).

## **2. Additional Terms and Conditions**

**2.a** None

## **B. Operational Restrictions**

1. The pressure drop across the baghouse shall be maintained within the range of 1-10 inches of water while the emissions unit is in operation. The listed pressure drop range applies at all times except following rebagging until sufficient filter cake is developed on the bags.

## **C. Monitoring and/or Record keeping Requirements**

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop on a weekly basis.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving the baghouse for 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. the total duration of any visible emission incident; and
  - c. any corrective actions taken to eliminate the visible emissions.

Notwithstanding the frequency of reporting requirements specified above, the permittee may reduce the frequency of visual observations from daily to weekly for this emissions unit if the following conditions are met:

- a. for 1 full quarter the facility's visual observations indicate no visible emissions;  
and
- b. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to daily readings if any visible emissions are observed.

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

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving the baghouse for the AFAX granular bulk bagging and spray dryer aux operation. 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. the total duration of any visible emission incident; and
- c. any corrective actions taken to eliminate the visible emissions.

Notwithstanding the frequency of reporting requirements specified above, the permittee may reduce the frequency of visual observations from daily to weekly for this emissions unit if the following conditions are met:

- a. for 1 full quarter the facility's visual observations indicate no visible emissions; and
- b. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to daily readings if any visible emissions are observed.

## E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation  
 0% visible emissions from the building openings in the vicinity of the baghouse, as a six-minute average

### Applicable Compliance Method

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

- b. Emission Limitation  
 1.29 lbs PE/PM-10 per hour and 5.63 tons per year from the baghouse  
 0.08 lb manganese per hour and 0.37 tpy

### Applicable Compliance Method

Compliance was determined on a one-time basis for the baghouse using the following equation:

$$\text{PE/PM-10: } 5000 \text{ cfm} \times 0.03 \text{ gr/cfm} \times 60 \text{ min/hour} \times 7000 \text{ gr/1 lb} = 1.286 \text{ lbs/hour}$$

$$1.286 \text{ lbs/hour} \times 8760 \text{ hour/year} \times 1 \text{ ton/2000 lbs} = 5.63 \text{ tpy}$$

MN:  $1.286 \text{ lbs/hour} \times 6.5\% = 0.0835 \text{ lbs manganese per hour}$   
 $0.0835 \text{ lbs manganese/hour} \times 8760 \text{ hour/year} \times 1 \text{ ton}/2000 \text{ lbs} = 0.37 \text{ tpy}$

Compliance shall be determined using OAC rule 3745-17-03(B)(10), if requested.

- c. Emission Limitation  
0.03 grain PE/PM-10 per dscf from each baghouse stack

Applicable Compliance Method  
OAC rule 3745-17-03(B)(10), if requested

**F. Miscellaneous Requirements**

1. This permit replaces PTI No. 02-11849, effective April 8, 1998, for this emissions unit.

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

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P050 consists of 8 AFAX Silos, each equipped with a bin vent filter	OAC rule 3745-31-05(A)(3)	0.23 lb PE/PM-10 hour and 1.01 tpy See section A.1.2.a.  0% visible emissions from the bin vents, as a six-minute average  0.02 lb manganese per hour and 0.07 tpy
	OAC rule 3745-17-07(A) OAC rule 3745-17-11(B)	The requirements established pursuant to OAC rules 3745-17-07(A) and 3745-17-11(B) are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A).

### 2. Additional Terms and Conditions

- 2.a The allowable mass emissions limitations for the silos are based upon the potential to emit. Therefore, no monitoring, record keeping or reporting are required to demonstrate compliance with these limitations.

### B. Operational Restrictions

None

### C. Monitoring and/or Record keeping 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 each bin vent 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. the total duration of any visible emission incident; and
  - c. any corrective actions taken to eliminate the visible emissions.

Notwithstanding the frequency of reporting requirements specified above, the permittee may reduce the frequency of visual observations from daily to weekly for this emissions unit if the following conditions are met:

- a. for 1 full quarter the facility's visual observations indicate no visible emissions; and
- b. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to daily readings if any visible emissions are observed.

### 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 any bin vent serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northeast District Office) by January 31 and July 31 of each year and shall cover the previous 6-month periods.

### E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation  
0% visible emissions from each bin vent, as a six-minute average

Applicable Compliance Method

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

- b. Emission Limitation  
0.23 lb PE/PM-10 per hour and 1.01 tpy from the 8 bin vents on the 8 silos

Applicable Compliance Method

Compliance was determined on a one-time basis for the 8 silos using the following equations:

Uncontrolled emissions  $7.3335 \text{ tons/hour} \times 3.14 \text{ lb/ton} = 23.27 \text{ lbs/hour}$   
Controlled with the 8 bin vent filters with 99% control efficiency  
 $23.27 \text{ lbs/hour} \times 1\% = 0.23 \text{ lb/hour} \times 8760 \text{ hour/yea} \times 1 \text{ ton}/2000 \text{ lbs} = 1.01 \text{ tpy}$

The emission factor of 3.14 lbs/ton was taken from AP-42 Table 11.12-2, Nov. 29, 2005 Draft section

- c. Emission Limitation  
0.02 lb manganese per hour and 0.07 tpy

Applicable Compliance Method

Compliance was determined on a one-time basis using the following equation:

Maximum manganese content is 6.5% by weight  
 $0.23 \text{ lb/hour} \times 6.5\% = 0.015 \text{ lb/hour} \times 8760 \text{ hour/year} \times 1 \text{ ton}/2000 \text{ lbs} = 0.07 \text{ tpy}$

- d. Emission Limitation  
0.03 grain PE/PM-10 per dscf from each baghouse stack

Applicable Compliance Method

OAC rule 3745-17-03(B)(10), if requested

**F. Miscellaneous Requirements**

1. This permit replaces PTI No. 02-2948, effective May 26, 1999, for this emissions unit.

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

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P053 - AFAX Granular Bag Filling and associated conveying venting to a 1800 scfm baghouse which exhausts inside the building	OAC rule 3745-31-05(A)(3)	0.03 grain/dscf from the baghouse  0.46 lb PE/PM-10 per hour and 2.03 tpy  0.03 lb manganese per hour and 0.13 tpy  0% visible emissions from the building openings in the vicinity of the baghouse, as a six-minute average
	OAC rule 3745-17-07(A) OAC rule 3745-17-11(B)	The requirements established pursuant to OAC rules 3745-17-07(A) and 3745-17-11(B) are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A).

### 2. Additional Terms and Conditions

#### 2.a None

## B. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 1 - 10 inches of water while the emissions unit is in operation. The listed pressure drop range applies at all times except following rebagging until sufficient filter cake is developed on the bags.

## C. Monitoring and/or Record keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop on a weekly basis.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving the baghouse for the granular bagger. 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. the total duration of any visible emission incident; and
  - c. any corrective actions taken to eliminate the visible emissions.

Notwithstanding the frequency of reporting requirements specified above, the permittee may reduce the frequency of visual observations from daily to weekly for this emissions unit if the following conditions are met:

- a. for 1 full quarter the facility's visual observations indicate no visible emissions; and
- b. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to daily readings if any visible emissions are observed.

## D. Reporting Requirements

**Fosec****PTI A****Issued: 4/6/2006**Emissions Unit ID: **P053**

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving the serving the baghouse for the granular bagger and (b) describe any corrective actions taken to minimize or eliminate the visible emissions. These reports shall be submitted to the Director (the Ohio EPA, Northeast District Office) by January 31 and July 31 of each year and shall cover the previous 6-month periods.

## E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation

0% visible emissions from the building openings in the vicinity of the baghouse, as a six-minute average

Applicable Compliance Method

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

- b. Emission Limitation

0.46 lb PE/PM-10 per hour and 2.03 tpy from the granular bagger

Applicable Compliance Method

Compliance was determined on a one time basis for the granular bagger using the following equations:

$$0.03 \text{ gr/cf} \times 1800 \text{ cf/min} \times 60 \text{ min/hour} \times 1 \text{ lb/7000 gr} = 0.4629 \text{ lbs/hour}$$

$$0.4629 \text{ lbs/hour} \times 8760 \text{ hour/year} \times 1 \text{ ton/2000 lbs} = 2.027 \text{ tpy}$$

- c. Emission Limitation

0.03 lb manganese per hour and 0.13 tpy

Applicable Compliance Method

Compliance was determined on a one-time basis using the following equation:

$$0.46 \text{ lb/hour} \times 6.5\% = 0.03 \text{ lb/hour} \times 8760 \text{ hrs/year} \times 1 \text{ ton/2000 lbs} = 0.13 \text{ tpy}$$

- d. Emission Limitation

0.03 grain PE/PM-10 per dscf from each baghouse stack

Applicable Compliance Method

OAC rule 3745-17-03(B)(10), if requested

## F. Miscellaneous Requirements

**Foseco Metallurgical, Inc.**  
**PTI Application: 02-21690**  
**Issue**

**Facility ID: 0204020036**

**Emissions Unit ID: P053**

1. This permit replaces PTI No. 02-2948, effective May 26, 1999, for this emissions unit.

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

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

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

<u>Operations, Property, and/or Equipment</u>	with associated conveying venting to a 2000 cfm baghouse which exhausts inside the building	<u>Applicable Rules/Requirements</u>
P054 - AFAX Mold Flux Powder Mixing and Bagging		
Manual powder loading station with 2000 cfm baghouse which exhausts inside the building		OAC rule 3745-31-05(A)(3)
		OAC rule 3745-17-07(A) OAC rule 3745-17-11(B)
Powder mixing and bagging		AC rule 3745-31-05(A)(3)

OAC rule 3745-17-07(A)  
OAC rule 3745-17-11(B)

<u>Applicable Emissions Limitations/Control Measures</u>
0.03 grain PE/PM-10 per dscf from the baghouse
0.51 lb/ PE/PM-10 per hour and 2.25 tpy
0.03 lb manganese per hour and 0.15 tpy
0% visible emissions from the building openings in the vicinity of the baghouse, as a six-minute average
The requirements established pursuant to OAC rules 3745-17-07(A) and 3745-17-11(B) are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A).
0.03 grain PE/PM-10 per dscf from the baghouse
0.51 lb/ PE/PM-10 per hour and 2.25 tpy
0.03 lb manganese per hour and 0.15 tpy
0% visible emissions from the building openings in the vicinity

of the baghouse, as a six-minute  
average

The requirements established  
pursuant to OAC rules  
3745-17-07(A) and 3745-17-11(B)  
are less stringent than the  
requirements established  
pursuant to OAC rule  
3745-31-05(A).

## 2. Additional Terms and Conditions

### 2.a None

## B. Operational Restrictions

1. The pressure drop across the two baghouses shall be maintained within the range of 1 to 10 inches of water while the emissions unit is in operation. The listed pressure drop range applies at all times except following rebagging until sufficient filter cake is developed on the bags.

## C. Monitoring and/or Record keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across each baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop on a weekly basis.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving the baghouse for the manual powder loading station and the baghouse for the mixer and bagger. 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. the total duration of any visible emission incident; and
  - c. any corrective actions taken to eliminate the visible emissions.

Notwithstanding the frequency of reporting requirements specified above, the permittee may reduce the frequency of visual observations from daily to weekly for this emissions unit if the following conditions are met:

- a. for 1 full quarter the facility's visual observations indicate no visible emissions; and
- b. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to daily readings if any visible emissions are observed.

#### D. Reporting Requirements

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving the serving the baghouse for the manual powder loading station and the baghouse for the mixer and bagger and (b) describe any corrective actions taken to minimize or eliminate the visible emissions. These reports shall be submitted to the Director (the Ohio EPA, Northeast District Office) by January 31 and July 31 of each year and shall cover the previous 6-month periods.

#### E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitation

0% visible emissions from the building openings in the vicinity of the baghouse serving the powder loading station, as a six-minute average

0% visible emissions from the building openings in the vicinity of the baghouse serving the powder mixing and bagging, as a six-minute average

Applicable Compliance Method

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

b. Emission Limitation

0.51 lb PE/PM-10 per hour and 2.25 tpy from each baghouse

Applicable Compliance Method

Compliance was demonstrated once as described below

$0.03 \text{ gr/cf} \times 2000 \text{ cf/min} \times 60 \text{ min/hour} \times 1 \text{ lb/7000 grains} = 0.51 \text{ lb/hour}$

$$0.51 \text{ lb/hour} \times 88760 \text{ hour/year} \times 1 \text{ ton}/2000 \text{ lbs} = 2.25 \text{ tpy}$$

- c. Emission Limitation  
0.03 lb manganese per hour and 0.15 tpy from each mixer

Applicable Compliance Method

$$0.51 \text{ lb PE/hour} \times 6.5\% = 0.03 \text{ lb/hour}$$

$$0.03 \text{ lb/hour} \times 88760 \text{ hour/year} \times 1 \text{ ton}/2000 \text{ lbs} = 0.15 \text{ tpy}$$

- d. Emission Limitation  
0.03 grain per dscf from each baghouse stack

Applicable Compliance Method

OAC rule 3745-17-03(B)(10), if requested

## F. Miscellaneous Requirements

1. This permit replaces PTI No. 02-2948, effective May 26, 1999, for this emissions unit.

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

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

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

<u>Operations, Property, and/or Equipment</u>		
P055 is the AFAX Spray Tower System.	Spray dryer with an 11.7 MM Btu/hour natural gas burner with a product collector cyclone and associated conveying venting to a 24,500 cfm wet scrubber which exhausts outside the building	
East and west pulpers (mixers) and associated conveying venting to 4500 cfm baghouse which exhausts inside the building		Fluidized bed cooling table and associated conveying venting to a 4500 cfm baghouse which exhausts outside the building

Applicable Rules/Requirements

OAC rule 3745-31-05(A)(3)

OAC rule 3745-17-07(A)(1)  
OAC rule 3745-17-11(B)

OAC rule 3745-31-05(A)(3)

Foseco Metallurgical, Inc.  
PTI Application: 02-21690  
Issue

Facility ID: 0204020036

Emissions Unit ID: P055

Applicable Emissions  
Limitations/Control Measures

OAC rule 3745-17-07(A)(1)  
OAC rule 3745-17-11(B)

0.03 grain PE/PM-10 per dscf  
from the baghouse

1.16 lb PE/PM-10 per hour and  
5.07 tpy

0.08 lb manganese per hour and  
0.33 tpy See section A.1.2.a.

0% visible emissions from the  
building openings in the vicinity of  
the baghouse, as a six-minute  
average

The requirements established  
pursuant to OAC rules  
3745-17-07(A)(3) and  
3745-17-11(B) are less restrictive  
than the requirements established  
pursuant to OAC rule  
3745-31-05(A)(3).

OAC rule 3745-17-07(A)  
OAC rule 3745-17-11(B)  
OAC rule 3745-17-10

Products of natural gas  
combustion:

1.17 lbs NOx per hour and 5.11  
tpy

0.98 lbs CO per hour and 4.29 tpy  
0.07 lb PE/PM-10 per hour and  
0.29 tpy

0.06 lb VOC per hour and 0.28 tpy  
0.007 lb SO2 per hour and 0.03  
tpy

OAC rule 3745-31-05(A)(3)

**Fosec  
PTI A  
Issued: 4/6/2006**

Emissions Unit ID: **P055**

0.02 lb combined HAPs per hour and 0.10 tpy  
0.02 lb hexane per hour and 0.09 tpy

pursuant to OAC rule 3745-31-05(A)(3).

Emissions from spray drying:  
0.03 grain per dscf from the scrubber stack

0.03 grain PE/PM-10 per dscf from the baghouse stack

6.30 lb PE/PM-10 per hour and 27.59 tpy from the scrubber stack

1.16 lb PE/PM-10 per hour and 5.07 tpy

0.41 lb manganese per hour and 1.79 tpy from the scrubber stack See section A.1.2.a.

0.08 lb manganese per hour and 0.33 tpy See section A.1.2.a.

0% visible emissions from the scrubber stack, as a six-minute average

0% visible emissions from the baghouse stack, as a six-minute average

The requirements established pursuant to OAC rules 3745-17-07(A)(3), 3745-17-10 and 3745-17-11(B) are less restrictive than the requirements established

The requirements established pursuant to OAC rules 3745-17-07(A)(3) and 3745-17-11(B) are less restrictive than the requirements established pursuant to OAC rule 3745-31-05(A)(3).

## 2. Additional Terms and Conditions

- 2.a The mass emissions limitations for manganese are based upon the potential to emit. In order to maintain a salable product, the maximum manganese content of the product may not exceed 6.5%, by weight.

## B. Operational Restrictions

1. The pressure drop across the two baghouses shall be maintained within the range of 1 to 10 inches of water while the emissions unit is in operation. The listed pressure drop range applies at all times except following rebagging until sufficient filter cake is developed on the bags.
2. The scrubber water supply pressure shall be continuously maintained at a value of not less than 45 pounds per square inch (gauge) at all times while the emissions unit is in operation. The water flow rate shall be continuously maintained, while the emissions unit is in operation, at a value of not less than 45 gallons per minute.

## C. Monitoring and/or Record keeping Requirements

1. The permittee shall daily monitor and record the following information daily for each hour of operation:
  - a. the amount of all materials employed, in pounds ;
  - b. the amount of manganese employed, in pounds;
  - c. the manganese content of the materials employed, in percent by weight, calculated as  $a/b \times 100$ ; and
  - d. the hours of operation each day.
2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across each baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop on a weekly basis.
3. The permittee shall properly install, operate and maintain equipment to monitor and record the scrubber water supply pressure and the scrubber water flow rate while the emissions unit is in operation. The monitoring devices and recorder(s) shall be calibrated, operated and maintained in accordance with the manufacturer's

recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day:

- a. the water supply pressure, in psig;
  - b. the water flow rate, in gpm; and
  - c. a log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
4. 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 baghouse stack serving the fluidized bed cooling table and also for the scrubber stack serving the spray dryer. The permittee shall also perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving the baghouse for the pulpers. 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. the total duration of any visible emission incident; and
  - c. any corrective actions taken to eliminate the visible emissions.

Notwithstanding the frequency of reporting requirements specified above, the permittee may reduce the frequency of visual observations from daily to weekly for this emissions unit if the following conditions are met:

- a. for 1 full quarter the facility's visual observations indicate no visible emissions;  
and
- b. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to daily readings if any visible emissions are observed.

#### D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include an identification of each hour the manganese content of the material processed in this emissions unit exceeded 6.5%, by weight.
2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across each baghouse did not comply with the allowable range specified above.
3. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required levels contained in this permit:
  - a. the water supply pressure; and
  - b. the scrubber water flow rate.
4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from any stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northeast District Office) by January 31 and July 31 of each year and shall cover the previous 6-month periods.

#### E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation
    - 0% visible emissions from the building openings in the vicinity of the baghouse serving the pulpers, as a six-minute average
    - 0% visible emissions from the scrubber stack, as a six-minute average
    - 0% visible emissions from the baghouse stack serving the cooling table, as a six-minute average

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

b. Emission Limitation

1.16 lb PE/PM-10 per hour and 5.07 tpy from each baghouse stack  
6.3 lb PE/PM-10 per hour and 27.59 tpy from the scrubber stack

Applicable Compliance Method

Compliance was demonstrated once as described below for each baghouse

$0.03 \text{ gr/cf} \times 4500 \text{ cf/min} \times 60 \text{ min/hour} \times 1 \text{ lb/7000 grains} = 1.16 \text{ lb/hour}$   
 $1.16 \text{ lb/hour} \times 88760 \text{ hour/year} \times 1 \text{ ton/2000 lbs} = 5.07 \text{ tpy}$

Compliance was demonstrated as described below for the scrubber

$0.03 \text{ gr/cf} \times 24500 \text{ cf/m} \times 60 \text{ min/hour} \times 1/7000 = 6.3 \text{ lbs/hour}$   
 $6.3 \text{ lbs/hour} \times 88760 \text{ hour/year} \times 1 \text{ ton/2000 lbs} = 27.59 \text{ tpy}$

c. Emission Limitation

0.08 lb manganese per hour and 0.33 tpy from each baghouse stack  
0.41 lb manganese per hour and 1.79 tpy from the scrubber stack

Applicable Compliance Method

Compliance was demonstrated once as described below for each baghouse

$1.16 \text{ lb PE/hour} \times 6.5\% = 0.08 \text{ lb/hour}$   
 $0.08 \text{ lb/hour} \times 88760 \text{ hour/year} \times 1 \text{ ton/2000 lbs} = 0.33 \text{ tpy}$

Compliance was demonstrated once as described below for the scrubber

$6.3 \text{ lbs/hour} \times 6.5\% = 0.41 \text{ lb/hour}$   
 $0.41 \text{ lb/hour} \times 8760 \text{ hours/year} \times 1 \text{ ton/2000 lbs} = 1.79 \text{ tpy}$

d. Emission Limitation

0.03 grain PE/PM-10 per dscf from each baghouse stack  
0.03 grain per dscf from the scrubber stack

Applicable Compliance Method

OAC rule 3745-17-03(B)(10), if requested

e. Emission Limitation

Products of natural gas combustion from the spray dryer:

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1.17 lbs NOx per hour and 5.107 tpy  
0.98 lbs CO per hour and 4.29 tpy  
0.07 lb PE/PM-10 per hour and 0.29 tpy  
0.064 lb VOC per hour and 0.28 tpy  
0.007 lb SO2 per hour and 0.03 tpy  
0.02 lb combined HAPs per hour and 0.10 tpy  
0.02 lb hexane per hour and 0.092 tpy

Applicable Compliance Method

Compliance was demonstrated on a one time basis as follows:

NOx 100 lbs/mm cf x 11,660 cf/hour = 1.166 lbs/hour is 5.107 tpy  
CO 84 lb/mm cf x 11,660 cf/hour = 0.979 lbs/hour is 4.2899 tpy  
PE/PM-10 5.7 lbs/ mm cf x 11,660 cf/hour = 0.066 lb/hour and 0.291 tpy  
VOC 5.5 lbs/mm cf x 11,660 cf/hour = 0.064 lb/hour and 0.28 tpy  
SO2 0.6 lb/mmbtu x 11,660 cf/hour = 0.007 lb/hour and 0.03 tpy  
COMBINED HAPs 1.888 lb/mm cf x 11,660 cf/hour = 0.02 lb/hour and 0.096 tpy  
Hexane 1.8 lb/mm cf x 11,660 cf/hour = 0.02 lb/hour and 0.092 tpy

Emission factors for NOx and CO are taken from AP-42, Table 1.4-1. (7/98)

Emission factors for CO2, Lead PM, SO2, TOC, VOC are taken from AP-42, Table 1.4-2. (7/98)

Emission factors for organic HAPs are taken from Table 1.4-3.(7/98)

Emission factors for metals are taken from AP-42, Table 1.4-4.(7/98)

Emission factors for organic HAPs and metals are summed to derive emission factor for combined HAPs.

**F. Miscellaneous Requirements**

1. This permit replaces PTI No. 02-1849, effective April 8, 1998, for this emissions unit.

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

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P056 consists of 8 natural gas fired FOSCAST kilns. Seven of the kilns are rated at 3.0 MM Btu/hour and one is rated at 6.3 MM Btu/hour.	OAC rule 3745-31-05(A)(3)	2.70 lbs NO <sub>x</sub> per hour and 11.82 tpy 2.27 lbs CO per hour and 9.93 tpy 0.15 lb PE/PM-10 per hour and 0.67 tpy 0.15 lb VOC per hour and 0.65 tpy 0.02 lb SO <sub>2</sub> per hour and 0.07 tpy  37.2 lbs combined HAPs per month and 0.22 tpy  35.5 lbs hexane per month and 0.21 tpy  See section A.2.a.  0% visible emissions from each kiln stack, as a six-minute average
	OAC rule 3745-17-10(B)(1) OAC rule 3745-17-07(A)	The requirements established pursuant to OAC rules 3745-17-07(A) and 3745-17-10(B) are less restrictive than the requirements established pursuant to OAC rule 3745-31-05(A)(3).

## **2. Additional Terms and Conditions**

- 2.a** The emissions limitations established for NO<sub>x</sub>, CO, PE/PM-10, VOC, SO<sub>2</sub>, combined HAPs and hexane (highest individual HAP) were established based upon the potential to emit for the eight kilns. Therefore, no monitoring, record keeping or reporting are required to demonstrate compliance with the above emissions limitations.

## **B. Operational Restrictions**

None

## **C. Monitoring and/or Record keeping 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 stacks 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. the total duration of any visible emission incident; and
  - c. any corrective actions taken to eliminate the visible emissions.

Notwithstanding the frequency of reporting requirements specified above, the permittee may reduce the frequency of visual observations from daily to weekly for this emissions unit if the following conditions are met:

- a. for 1 full quarter the facility's visual observations indicate no visible emissions; and
- b. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to daily readings if any visible emissions are observed.

## **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 any stack serving this

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**Issue:**

**Facility ID: 0204020036**

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emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northeast District Office) by January 31 and July 31 of each year and shall cover the previous 6-month periods.

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

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation  
0% visible emissions from each baghouse stack, as a six-minute average

Applicable Compliance Method

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

- b. Emission Limitations  
2.70 lbs NO<sub>x</sub> per hour and 11.82 tpy  
2.27 lbs CO per hour and 9.93 tpy  
0.15 lb PE/PM-10 per hour and 0.67 tpy  
0.15 lb VOC per hour and 0.65 tpy  
0.02 lb SO<sub>2</sub> per hour and 0.07 tpy  
37.2 lbs combined HAPs per month and 0.22 tpy  
35.5 lbs hexane per month and 0.21 tpy

Applicable Compliance Method

Compliance was determined on a one-time basis using AP-42 emission factors (7/98) and maximum natural gas usage rate with the following equations:

$$\text{NO}_x: 100 \text{ lbs/mm cf} \times 26976 \text{ cf/hour} = 2.70 \text{ lbs/hour}$$

$$2.70 \text{ lbs/hour} \times 8760 \text{ hours/year} \times 1 \text{ ton/2000 lbs} = 11.82 \text{ tpy}$$

$$\text{CO: } 84 \text{ lb/mm cf} \times 26976 \text{ cf/hour} = 2.27 \text{ lbs/hour}$$

$$2.27 \text{ lbs/hour} \times 8760 \text{ hours/year} \times 1 \text{ ton/2000 lbs} = 9.93 \text{ tpy}$$

$$\text{PE/PM-10: } 5.7 \text{ lbs/mm cf} \times 26976 \text{ cf/hour} = 0.154 \text{ lb/hour}$$

$$0.15 \text{ lb/hour} \times 8760 \text{ hours/year} \times 1 \text{ ton/2000 lbs} = 0.67 \text{ tpy}$$

$$\text{VOC: } 5.5 \text{ lbs/mm cf} \times 24704 \text{ cf/hour} = 0.15 \text{ lb/hour}$$

$$0.15 \text{ lb/hour} \times 8760 \text{ hours/year} \times 1 \text{ ton/2000 lbs} = 0.65 \text{ tpy}$$

$$\text{SO}_2: 0.6 \text{ lb/mmBtu} \times 26976 \text{ cf/hour} = 0.0162 \text{ lb/hour}$$

$$0.016 \text{ lb/hour} \times 8760 \text{ hours/year} \times 1 \text{ ton/2000 lbs} = 0.07 \text{ tpy}$$

$$\text{HAPs combined: } 1.888 \text{ lb/mm cf} \times 26976 \text{ cf/hour} = 0.051 \text{ lb/hour}$$

$$0.051 \text{ lb/hour} \times 8760 \text{ hours/year} \times 1 \text{ ton/2000 lbs} = 0.22 \text{ tpy}$$

$$0.22 \text{ ton/year} \times 2000 \text{ lbs/ton} \times 1 \text{ year/12 months} = 37.2 \text{ lbs/month}$$

hexane:  $1.8 \text{ lb/mm cf} \times 26976 \text{ cf/hour} = 0.0486 \text{ lb/hour}$   
 $0.0486 \text{ lb/hour} \times 8760 \text{ hours/year} \times 1 \text{ ton}/2000 \text{ lbs} = 0.21 \text{ tpy}$   
 $0.21 \text{ ton/year} \times 2000 \text{ lbs/ton} \times 1 \text{ year}/12 \text{ months} = 35.45 \text{ lbs/month}$

The emission factors were derived from AP-42, section 1.4 on natural gas combustion as follows:

100 lbs NO<sub>x</sub> per mm cf, 84 lb CO per mm cf, 5.7 lbs PE/PM-10 per mm cf, 5.5 lb VOC per mm cf were taken from Table 1.4-2.

100 lbs NO<sub>x</sub> per mm cf and 84 lb CO per mm cf were taken from AP-42, Table 1.4-1.

HAP emission factors were taken from Tables 1.4-3 for organic HAPs and 1.4-4 for metals.

## **F. Miscellaneous Requirements**

1. This permit replaces PTI No. 02-6560, effective April 29, 1992, for this emissions unit.

**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, <u>and/or Equipment</u>		
P057 is the Shank Ladle Liner Line .		
Preweigh station and associated conveying for dry materials controlled by a 3000 cfm baghouse which exhausts inside the building	6.0 MM Btu/hour natural gas fired North oven with outside exhaust	Down draft cleaning table or hand sanding of molded refractory parts with a 3000 cfm uncontrolled exhaust
Two pulpers (mixers) and conveying controlled by a 3000 cfm baghouse which exhausts outside the building		

Applicable Rules/Requirements

OAC rule 3745-31-05(A)(3)

OAC rule 3745-31-05(A)(3)

OAC rule 3745-17-77(B)  
OAC rule 3745-17-11(A)(3)

OAC rule 3745-17-11(B)  
OAC rule 3745-17-07(A)

OAC rule 3745-31-05(A)(3)

OAC rule 3745-17-10(B)  
OAC rule 3745-17-07(A)  
OAC rule 3745-21-07(G)(1)

OAC rule 3745-17-11(B)  
OAC rule 3745-17-07(A)

OAC rule 3745-31-05(A)(3)

<u>Applicable Emissions Limitations/Control Measures</u>	The requirements established pursuant to OAC rules 3745-17-07(A) and 3745-17-11(B) are less restrictive than the requirements established pursuant to OAC rule 3745-31-05(A)(3).	3745-17-11(B) are less restrictive than the requirements established pursuant to OAC rule 3745-31-05(A)(3).
0.03 grain PE/PM-10 per dscf exhaust from the baghouse	Products of combustion of natural gas: 0.59 lbs NOx per hour and 2.60 tpy 0.50 lb CO per hour and 2.18 tpy 0.03 lb PE/PM-10 per hour and 0.15 tpy 0.03 lb VOC per hour and 0.14 tpy 0.004 lb SO2 per hour and 0.02 tpy 0.01 lb/hour of combined HAPs and 0.05 tpy 0.01 lb hexane per hour and 0.05 tpy	0.01 grain PE/PM-10 per dscfm  0.26 lb PE/PM-10 per hour and 1.13 tpy from the cleaning table  0% visible emissions from the cleaning table exhaust, as a six-minute average
0% visible emissions from the building openings in the vicinity of the baghouse, as a six-minute average	0% visible emissions from the oven stack, as a six-minute average	The requirements established pursuant to OAC rules 3745-17-11(B) and 3745-17-07(A)(3) are less stringent than the requirements established pursuant to OAC rule 3745-31-05(A)(3).
The requirements established pursuant to OAC rules 3745-17-07(A) and 3745-17-11(B) are less restrictive than the requirements established pursuant to OAC rule 3745-31-05(A)(3).	2.40 lbs VOC per hour and 10.51 tpy from resin use	
0.03 grain PE/PM-10 per dscf exhaust from the baghouse stack	1.5 lbs formaldehyde per hour and 6.57 tpy from the oven from resin use See section A.1.2.a.	
0.77 lb PE/PM-10 per hour and 3.38 tpy from the baghouse stack	The requirements established pursuant to OAC rule 3745-17-07(A) and	
0% visible emissions from the baghouse stack, as a six-minute average		

## **2. Additional Terms and Conditions**

- 2.a** The shank ladle liner line shall not employ more than 60 pounds of resin per hour. The formaldehyde content of the resin shall not exceed 2.5%, by weight.

## **B. Operational Restrictions**

1. The pressure drop across the two baghouses shall be maintained within the range of 1 to 10 inches of water while the emissions unit is in operation. The listed pressure drop range applies at all times except following rebagging until sufficient filter cake is developed on the bags.

## **C. Monitoring and/or Record keeping Requirements**

1. The permittee shall maintain daily records of the following information:
- the company identification of the resin employed;
  - the amount of resin employed, in pounds;
  - the VOC content of the resin employed, in percent by weight;
  - the identification of each HAP in the resin; and
  - the HAP content of each resin, in percent by weight.
2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across each baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop on a weekly basis.
3. 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 baghouse stack serving the pulpers and from the oven stack. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving the preweigh station baghouse exhaust. 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:
- the color of the emissions;
  - the total duration of any visible emission incident; and

- c. any corrective actions taken to eliminate the visible emissions.

Notwithstanding the frequency of reporting requirements specified above, the permittee may reduce the frequency of visual observations from daily to weekly for this emissions unit if the following conditions are met:

- a. for 1 full quarter the facility's visual observations indicate no visible emissions;  
and
- b. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to daily readings if any visible emissions are observed.

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

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving the preweigh station baghouse exhaust and (b) describe any corrective actions taken to minimize or eliminate the visible emissions. These reports shall be submitted to the Director (the Ohio EPA, Northeast District Office) by January 31 and July 31 of each year and shall cover the previous 6-month periods.
3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions were observed from the baghouse stack serving the pulpers or from the oven stack and (b) describe any corrective actions taken to minimize or eliminate the visible emissions. These reports shall be submitted to the Director (the Ohio EPA, Northeast District Office) by January 31 and July 31 of each year and shall cover the previous 6-month periods.

4. The permittee shall submit quarterly deviation (excursion) reports that identify each day:
  - a. a resin containing more than 2.50% formaldehyde, by weight, was employed;
  - b. more than 1.5 lbs formaldehyde per hour was emitted from the oven; or
  - c. more than 60 lbs of resin per hour was employed.

The above quarterly deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.

#### E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation  
 0% visible emissions from the building openings in the vicinity of the baghouse serving the preweigh station, as a six-minute average  
 0% visible emissions from the stack of the baghouse serving the pulpers, as a six-minute average  
 0% visible emissions from the oven stack, as a six-minute average  
 0% visible emissions from the cleaning table exhaust, as a six-minute average

##### Applicable Compliance Method

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

- b. Emission Limitation  
 0.77 lbs PE/PM-10 per hour and 3.39 tpy from the baghouse stack serving the preweigh station  
 0.77 lbs PE/PM-10 per hour and 3.38 tpy from the baghouse stack serving the pulpers

##### Applicable Compliance Method

Compliance was determined for each of the baghouses on a one-time basis using the following equation:

$$0.03 \text{ grain/cf} \times 3000 \text{ cf/min} \times 60 \text{ min/hour} \times 1 \text{ lb/7000 grains} = 0.77 \text{ lbs/hour}$$

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$0.77 \text{ lbs/hour} \times 8760 \text{ hours/year} \times 1 \text{ ton}/2000 \text{ lbs} = 3.38 \text{ tpy}$

Compliance shall be determined using OAC rule 3745-17-03(B)(10), if requested.

c. Emission Limitation

0.03 grain per dscf of exhaust from each of the baghouses

Applicable Compliance Method

OAC rule 3745-17-03(B)(10), if requested

d. Emission Limitation

Products of combustion from the north oven:

0.59 lb NO<sub>x</sub> per hour and 2.60 tpy

0.50 lb CO per hour and 2.18 tpy

0.03 lb PE/PM-10 per hour and 0.15 tpy

0.03 lb VOC per hour and 0.14 tpy

0.004 lb SO<sub>2</sub> per hour and 0.02 tpy

0.01 lb/hour of combined HAPs and 0.05 tpy

0.01 lb hexane per hour and 0.047 tpy

Applicable Compliance Method

Compliance was determined on a one-time basis using AP-42 emission factors and maximum natural gas usage rate with the following equations:

NO<sub>x</sub>:  $100 \text{ lbs/mm cf} \times 5929 \text{ cf/hour} = 0.59 \text{ lbs/hour}$

$0.59 \text{ lbs/hour} \times 8760 \text{ hours/year} \times 1 \text{ ton}/2000 \text{ lbs} = 2.60 \text{ tpy}$

CO:  $84 \text{ lb/mm cf} \times 5929 \text{ cf/hour} = 0.498 \text{ lbs/hour}$

$0.45 \text{ lb/hour} \times 8760 \text{ hours/year} \times 1 \text{ ton}/2000 \text{ lbs} = 2.18 \text{ tpy}$

PE/PM-10:  $5.7 \text{ lbs/mm cf} \times 5929 \text{ cf/hour} = 0.03 \text{ lb/hour}$

$0.03 \text{ lb/hour} \times 8760 \text{ hours/year} \times 1 \text{ ton}/2000 \text{ lbs} = 0.15 \text{ tpy}$

VOC:  $5.5 \text{ lbs/mm cf} \times 5929 \text{ cf/hour} = 0.03 \text{ lb/hour}$

$0.03 \text{ lb/hour} \times 8760 \text{ hours/year} \times 1 \text{ ton}/2000 \text{ lbs} = 0.14 \text{ tpy}$

SO<sub>2</sub>:  $0.6 \text{ lb/mmBtu} \times 5929 \text{ cf/hour} = 0.004 \text{ lb/hour}$

$0.004 \text{ lb/hour} \times 8760 \text{ hours/year} \times 1 \text{ ton}/2000 \text{ lbs} = 0.02 \text{ tpy}$

Combined HAPs:  $1.888 \text{ lb/mm cf} \times 5929 \text{ cf/hour} = 0.01 \text{ lb/hour}$

$$0.01 \text{ lb/hour} \times 8760 \text{ hours/year} \times 1 \text{ ton/2000 lbs} = 0.05 \text{ tpy}$$

$$\text{Hexane: } 1.8 \text{ lb/mm cf} \times 5929 \text{ cf/hour} = 0.01 \text{ lb/hour}$$

$$0.01 \text{ lb/hour} \times 8760 \text{ hours/year} \times 1 \text{ ton/2000 lbs} = 0.047 \text{ tpy}$$

- e. Emission Limitation  
2.4 lbs VOC per hour and 10.51 tpy from resin use in the oven

Applicable Compliance Method

Compliance shall be demonstrated as follows:

$$E = R \times V$$

Where:

E = emissions of VOC, in pounds per hour

R = resin use, in pounds per hour

V = VOC content of the resin, in % by weight

- f. Emission Limitation  
1.5 lbs formaldehyde per hour and 6.57 tpy from resin use in the oven

Applicable Compliance Method

Compliance shall be demonstrated as follows:

$$E = R \times F \times$$

Where:

E = emissions of VOC, in pounds per hour

R = resin use, in pounds per hour

F = formaldehyde content of the resin, in % by weight

- g. Emission Limitation  
0.26 lb PE/PM-10 per hour and 1.13 tpy from the cleaning table exhaust

Applicable Compliance Method

Compliance was determined on a one-time basis as follows:

$$0.03 \text{ grain/cf} \times 3000 \text{ cf/min} \times 60 \text{ min/hour} \times 1 \text{ lb/7000 grains} = 0.257 \text{ lbs/hour}$$

$$0.257 \text{ lbs/hour} \times 8760 \text{ hours/year} \times 1 \text{ ton/2000 lbs} = 1.126 \text{ tpy}$$

- h. Emission Limitation  
0.01 grain per dscf of exhaust from the cleaning table

Applicable Compliance Method  
OAC rule 3745-17-03(B)(10), if requested

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 12 months of the effective date of this permit.
- b. The emission testing shall be conducted to demonstrate compliance with the formaldehyde content of the resin and the mass emission limitation from the pulpers and the oven.
- c. Method 316, Method 18 or another U.S. EPA approved test method shall be employed with prior approval from the Ohio EPA, Northeast District Office to demonstrate compliance with the allowable mass emission rate.

Method 25 or another U.S. EPA approved test methods shall be employed with prior approval from the Ohio EPA to demonstrate compliance with the formaldehyde content of the resin.

- 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 Ohio EPA, Northeast District Office.
- e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA, 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 test(s). 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).
- f. Personnel from the Ohio EPA, Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and

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**Issue**

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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 Ohio EPA, Northeast District Office. 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 Ohio EPA, Northeast District Office.

#### **F. Miscellaneous Requirements**

1. This permit replaces PTI No. 02-8951, effective March 1, 1995, for the down draft cleaning table portion of this emissions unit.



**Fosec**  
**PTI A**  
**Issued: 4/6/2006**

Emissions Unit ID: **P058**

Applicable Emissions Limitations/Control Measures	0% visible emissions from the oven stack, as a six-minute average
0.03 grain PE/PM-10 per dscf of exhaust from the baghouse	The requirements established pursuant to OAC rule
0.77 lb PE/PM-10 per hour and 3.38 tpy	3745-17-07(A) and 3745-17-11(B) are less
0% visible emissions from the building openings in the vicinity of the baghouse, as a six-minute average	restrictive than the requirements established pursuant to OAC rule 3745-31-05(A)(3).
The requirements established pursuant to OAC rules 3745-17-07(A)(3) and 3745-17-11(B) are less restrictive than the requirements established pursuant to OAC rule 3745-31-05(A)(3).	
Products of combustion of natural gas: 0.22 lbs NOx per hour and 0.95 tpy 0.18 lb CO per hour and 0.80 tpy 0.01 lb PE/PM-10 per hour and 0.05 tpy 0.01 lb VOC per hour and 0.05 tpy 0.001 lb SO2 per hour and 0.01 tpy 1.33 lbs/month of combined HAPs and 0.02 tpy 1.33 lbs hexane per month and 0.02 tpy	

**2. Additional Terms and Conditions**

2.a None

**B. Operational Restrictions**

1. The pressure drop across the baghouse shall be maintained within the range of 1 to 10 inches of water while the emissions unit is in operation. The listed pressure drop range applies at all times except following rebagging until sufficient filter cake is developed on the bags

**C. Monitoring and/or Record keeping Requirements**

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop on a weekly basis.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions from the mixer baghouse stack and also from the kiln stack. 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. the total duration of any visible emission incident; and
  - c. any corrective actions taken to eliminate the visible emissions.

Notwithstanding the frequency of reporting requirements specified above, the permittee may reduce the frequency of visual observations from daily to weekly for this emissions unit if the following conditions are met:

- a. for 1 full quarter the facility's visual observations indicate no visible emissions; and
- b. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to daily readings if any visible emissions are observed.

#### D. Reporting Requirements

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions were observed from the mixer baghouse stack and from the kiln stack and (b) describe any corrective actions taken to minimize or eliminate the visible emissions. These reports shall be submitted to the Director (the Ohio EPA, Northeast District Office) by January 31 and July 31 of each year and shall cover the previous 6-month periods.

#### E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation  
 0% visible emissions from the building openings in the vicinity of the baghouse serving the mixer, as a six-minute average  
 0% visible emissions from the kiln stack, as a six-minute average  
  
Applicable Compliance Method  
 Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1), if requested.
  - b. Emission Limitation  
 0.77 lbs PE/PM-10 per hour and 3.39 tpy from the mixer baghouse  
  
Applicable Compliance Method  
 Compliance was determined on a one-time basis using the following equation:  
  

$$0.03 \text{ grain/cf} \times 3000 \text{ cf/min} \times 60 \text{ min/hour} \times 1 \text{ lb/7000 grains} = 0.77 \text{ lbs/hour}$$

$$0.77 \text{ lbs/hour} \times 8760 \text{ hours/year} \times 1 \text{ ton/2000 lbs} = 3.38 \text{ tpy}$$
  - c. Emission Limitation  
 0.03 grain PE/PM-10 per dscf from the baghouse

Applicable Compliance Method

OAC rule 3745-17-03(B)(10), if requested

d. Emission Limitation

Products of combustion from the kiln:

0.22 lbs NO<sub>x</sub> per hour and 0.95 tpy

0.18 lb CO per hour and 0.80 tpy

0.01 lb PE/PM-10 per hour and 0.05 tpy

0.01 lb VOC per hour and 0.05 tpy

0.001 lb SO<sub>2</sub> per hour and 0.006 tpy

0.004 lb/hour of combined HAPs and 0.02 tpy

0.004 lb hexane per hour and 0.02 tpy

Applicable Compliance Method

Compliance was determined on a one-time basis using AP-42 emission factors and maximum natural gas usage rate with the following equations:

NO<sub>x</sub>: 100 lbs/mm cf x 2174 cf/hour = 0.22 lbs/hour

0.22 lbs/hour x 8760 hours/year x 1 ton/2000 lbs = 0.95 tpy

CO: 84 lb/mm cf x 2174 cf/hour = 0.18 lbs/hour

0.18 lb/hour x 8760 hours/year x 1 ton/2000 lbs = 0.80 tpy

PE/PM-10: 5.7 lbs/ mm cf x 2174 cf/hour = 0.01 lb/hour

0.01 lb/hour x 8760 hours/year x 1 ton/2000 lbs = 0.05 tpy

VOC: 5.5 lbs/mm cf x 2174 cf/hour = 0.01 lb/hour

0.01 lb/hour x 8760 hours/year x 1 ton/2000 lbs = 0.05 tpy

SO<sub>2</sub>: 0.6 lb/mmBtu x 2174 cf/hour = 0.001 lb/hour

0.001 lb/hour x 8760 hours/year x 1 ton/2000 lbs = 0.006 tpy

Combined HAPs: 1.888 lb/mm cf x 2174 cf/hour = 0.004 lb/hour

0.004 lb/hour x 8760 hours/year x 1 ton/2000 lbs = 0.02 tpy

Hexane: 1.8 lb/mm cf x 2174 cf/hour = 0.004 lb/hour

0.004 lb/hour x 8760 hours/year x 1 ton/2000 lbs = 0.02 tpy

**Foseco Metallurgical, Inc.**  
**PTI Application: 02-21690**  
**Issue:**

**Facility ID: 0204020036**

**Emissions Unit ID: P058**

**F. Miscellaneous Requirements**

None