

**Synthetic Minor Determination and/or  Netting Determination**

Permit To Install: "01-12147

**A. Source Description**

Griffin Wheel is steel foundry located in Groveport, Franklin County. Griffin installed 3 electric arc furnaces (EAFs) each with a maximum design melt rate of 20 tons per hour (TPH) following issuance of PTI 01-333 on May 28, 1980. Griffin Wheel subsequently, replaced one EAF with a ladle metallurgical furnace (LMF) following issuance of PTI 01-07377 in 1998. Griffin Wheel notified Ohio EPA in a memorandum dated March 23, 2006 that the LMF would be removed and the melt cycle in 2 existing EAFs would remain at 19.5 tons per hour (TPH). Following removal of the LMF and emission testing, Griffin Wheel requested to modify PTI 01-07377 to increase allowable emissions.

**B. Facility Emissions and Attainment Status**

Griffin Wheel is a major for particulate emissions and has been operating under a Title V operating permit since March 26, 2004. Prior to the issuance of the Title V permit, Griffin Wheel opted for a synthetic minor restriction on phenol-formaldehyde resin usage for core sand limiting phenol emissions, the single highest organic HAP, to less than 10 tons/yr. Griffin Wheel notified USEPA that it would be operating as an area source under 40CFR 63 Subpart ZZZZZ.

Franklin County is designated as being in basic non-attainment with both the ozone and PM<sup>2.5</sup> NAAQS.

**C. Source Emissions**

Griffin derived the emissions factors from Columbus plant emission test data and the past actual emission rate from the average annual melt rate of 167,705 tons steel processed during 2005 and 2006. Griffin compared these with the future potential emission rates derived at a maximum design melt rate of 256,500 tons steel per year for non-attainment new source review.

Pollutant	Past ^ Actual tons/yr	Future ^^ Actual Tons/yr	Emission Increase Tons/yr	Significant PSD Rev Tons/yr
PM <sub>10</sub>	86 *	99.7 *	13.7	15
SOx	5.5 **	23.9 **	18.4	40
NOx	26.8 **	45.2 **	18.4	40
VOC	16.0 **	41.1 **	25.1	40
CO	260 **	357 **	97	100
Pb	0.06 *	0.213*	0.153	0.6
Metal HAPs	3.95	6.0	2.05	

^ average melt rate of 167,705 tons (2005, 2006) ^^ melt rate of 256, 500 tons (PTE)

\* PM10 and Pb total emissions include a fugitive component derived from 95% control with 94.1% capture (past) or 93.5% capture (potential).

\*\*Gaseous criteria pollutant total emissions include a fugitive component without a control efficiency and 94.1% capture (past) or 93.5% capture (potential).

The current Title V permit limits the inorganic HAP emission from the baghouse stack P901, P902, and P903 (1.48 + 1.48 + 0.32) to 3.28 tons Pb and 3.50 tons fugitive metal HAP emissions (1.75 + 1.75) for a facility wide total of 6.78 tons metal HAP/yr.

D. Conclusion

The emissions analysis at maximum PTE for criteria pollutant emissions from the 2 electric arc furnaces indicates that the modification did not result in an exceedance of the significant review rate for non-attainment new source review. Griffin Wheel also proposes to restrict facility-wide HAP emission to less than 10 tons for a single HAP and 25 tons for total HAPs by limiting phenol to 9.98 tons/yr with phenolic resin restrictions and total metal HAP from the electric arc furnaces (P901 and P902) to 6.0 tons/yr with stack emission testing and baghouse dust analysis. Therefore, Griffin will be required to comply with the National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Source rules - 40 CFR Part 63, Subpart ZZZZZ no later than January 2, 2009.



State of Ohio Environmental Protection Agency

**RE: DRAFT PERMIT TO INSTALL  
FRANKLIN COUNTY**

**CERTIFIED MAIL**

Street Address:

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

Mailing Address:

Lazarus Gov.  
Center

**Application No:** 01-12147

**Fac ID:** 0125100987

**DATE:** 6/10/2008

Griffin Wheel Company  
Kim Myers  
3900 Bixby Rd  
Groveport, OH 43125

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43216-1049.

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$4000** will be due. Please do not submit any payment now.

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. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Sincerely,

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

CC: USEPA

CDO

MID-OHIO REGIONAL PLANNING COMMISSION

**FRANKLIN COUNTY**

**PUBLIC NOTICE**  
**ISSUANCE OF DRAFT PERMIT TO INSTALL 01-12147 FOR AN AIR CONTAMINANT SOURCE**  
**FOR Griffin Wheel Company**

On 6/10/2008 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **Griffin Wheel Company**, located at **3900 Bixby Rd, Groveport**, Ohio.

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 01-12147:

**2 - electric arc furnaces P901 and P902.**

Comments concerning this draft action, or a request for a public meeting, must be sent in writing to the address identified below no later than thirty (30) days from the date this notice is published. All inquiries concerning this draft action may be directed to the contact identified below.

Isaac Robinson, Ohio EPA, Central District Office, 122 South Front St, P.O. Box 1049, Columbus, OH 43216-1049 [(614)728-3778]



**Permit To Install  
Terms and Conditions**

**Issue Date: To be entered upon final issuance  
Effective Date: To be entered upon final issuance**

**DRAFT PERMIT TO INSTALL 01-12147**

Application Number: 01-12147  
Facility ID: 0125100987  
Permit Fee: **To be entered upon final issuance**  
Name of Facility: Griffin Wheel Company  
Person to Contact: Kim Myers  
Address: 3900 Bixby Rd  
Groveport, OH 43125

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**3900 Bixby Rd  
Groveport, Ohio**

Description of proposed emissions unit(s):  
**2 - electric arc furnaces P901 and P902.**

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

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Chris Korleski  
Director

## A. State and Federally Enforceable Permit-To-Install General Terms and Conditions

### 1. Monitoring and Related Recordkeeping and Reporting Requirements

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
  - i. The date, place (as defined in the permit), and time of sampling or measurements.
  - ii. The date(s) analyses were performed.
  - iii. The company or entity that performed the analyses.
  - iv. The analytical techniques or methods used.
  - v. The results of such analyses.
  - vi. The operating conditions existing at the time of sampling or measurement.
- b. 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.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
  - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
  - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written

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reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.9 below if no deviations occurred during the quarter.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
  - iv. If this permit is for an emissions unit located at a Title V facility, then each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- d. The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

**2. 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, i.e., upset, 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. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to 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 emission unit(s) that is (are) served by such control system(s).

**3. Risk Management Plans**

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the

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permittee shall comply with the requirement to register such a plan.

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**4. Title IV Provisions**

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

**5. Severability Clause**

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

**6. General Requirements**

- a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification
- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c. This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. 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 or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the

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permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

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**7. 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 any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

**8. Federal and State Enforceability**

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

**9. Compliance Requirements**

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
  - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
  - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
  - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

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- iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
  - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

#### **10. Permit-To-Operate Application**

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).
- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this permit is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. 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 source(s) covered by this permit.

#### **11. 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.

#### **12. Air Pollution Nuisance**

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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.

**13. Permit-To-Install**

A permit-to-install must be obtained pursuant to OAC Chapter 3745-31 prior to "installation" of "any air contaminant source" as defined in OAC rule 3745-31-01, or "modification", as defined in OAC rule 3745-31-01, of any emissions unit included in this permit.

**B. State Only Enforceable Permit-To-Install General Terms and Conditions**

**1. Compliance Requirements**

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

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**3. 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.

**4. Authorization To Install or Modify**

If applicable, authorization to install or modify any new or existing emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit 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.

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

This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. 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 this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit 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.

**6. 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.

**7. Applicability**

This Permit to Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate application must be made to the Director for the installation or

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modification of any other emissions unit(s).

#### **8. Construction Compliance Certification**

If applicable, the applicant shall provide Ohio EPA with a written certification (see enclosed form if applicable) 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.

#### **9. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)**

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., postmarked), by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

#### **C. Permit-To-Install Summary of Allowable Emissions**

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

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

<u>Pollutant</u>	<u>Tons Per Year</u>
PM <sub>10</sub>	99.7
SO <sub>2</sub>	23.9
NOx	45.2
CO	357
OC	41.1
Pb	0.213
Total metal HAP	6.0

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**Part II - FACILITY SPECIFIC TERMS AND CONDITIONS****A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions**

1. The permittee shall monitor the emissions of any regulated NSR pollutant that could increase as a result of the removal of the ladle metallurgical furnace (LMF) and that is emitted by the electric arc furnaces (EAFs: P901 and P902); and calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five years following resumption of regular operations after the change, or for a period of ten years following resumption of regular operations after the change if the NSR project increases the design capacity or potential to emit of that regulated NSR pollutant at such emissions unit.

(OAC rule 3745-31-10(A)(3))

2. For the electric arc furnaces (EAFs P901 and P902), as existing emissions units, the permittee shall submit a report to the director if the annual emissions, in tons per year, following the removal of the ladle metallurgical furnace (LMF) identified above in Section A.1, exceed the baseline actual emissions (as documented in Table 1 below, by a significant amount for that regulated NSR pollutant, and if such emissions differ from the preconstruction projected actual emissions as documented in Table 1 below. Such report shall be submitted to the director within sixty days after the end of such year. The report shall contain the following:
  - a. the name, address and telephone number of the major stationary source;
  - b. the annual emissions as calculated pursuant to section A.1, above; and
  - c. Any other information that the owner or operator wishes to include in the report (e.g., an explanation as to why the emissions differ from the preconstruction projection).

Table 1. Baseline actual criteria pollutant emissions with projected actual emission rates.

Pollutant	Past ^ Actual tons/yr	Future ^^ Actual Tons/yr	Emission Increase Tons/yr	Significant PSD Rev Tons/yr
PM <sub>10</sub>	86 *	99.7 *	13.7	15
SOx	5.5 **	23.9 **	18.4	40
NOx	26.8 **	45.2 **	18.4	40
VOC	16.0 **	41.1 **	25.1	40
CO	260 **	357 **	97	100
Pb	0.06 *	0.213*	0.153	0.6
Metal HAPs	3.95	6.0	2.05	

^ average 167,705 tons (6,684 hr - 2005, 2006) ^^ PTE 256, 500 tons (7,920 hrs)

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\* PM10 and Pb total emissions include a fugitive component derived from 95% control with 94.1% capture (past) or 93.5% capture (potential).

\*\*Gaseous criteria pollutant total emissions include a fugitive component without a control efficiency and 94.1% capture (past) or 93.5% capture (potential).

(OAC rule 3745-31-10(A)(5))

3. Emission units P901 and P902 are subject to provisions in 40CFR Part 63, Subpart ZZZZZ, and must provide written notification of area source designation no later than January 2, 2009, as are all emissions units releasing fugitive particulate emissions from this foundry. The complete MACT requirements, including the MACT General provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the appropriate ohio EPA District office or local air agency.
4. All of the emissions units located at this facility are subject to the facility-wide opacity limitation for fugitive emissions established in 40 CFR 63.10895(e), that is, 20 percent opacity as a 6-minute average, except for one 6-minute average that does not exceed 30% opacity in any 1 hour observation period. However, fugitive particulate emissions from the roof monitor above the electric arc furnaces are subject to an opacity limitation established under BAT, which is more stringent than the opacity limitation from 40 CFR 63.10895(e).

B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions

None

Emissions Unit ID: P901

**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)****A. State and Federally Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

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

**Operations, Property, and/or Equipment - (P901) - Electric arc furnace No.1 vented to baghouse 1 (19.5 tons/hr)**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3) (Terms in this permit supersede those identified in PTI 01-7737 issued on June 3, 1998)	<p>The combined stack emissions from P901 and P902 shall not exceed 12.7 lbs PM<sub>10</sub>/hr.</p> <p>The combined stack emissions from P901 and P902 shall not exceed 6.8 lbs sulfur dioxide (SO<sub>2</sub>)/hr.</p> <p>The combined stack emissions from P901 and P902 shall not exceed 12.9 lbs NO<sub>x</sub>/hr.</p> <p>The combined stack emissions from P901 and P902 shall not exceed 101.4 lbs carbon monoxide (CO)/hr.</p> <p>The combined stack emissions from P901 and P902 shall not exceed 11.7 lbs organic compounds (OC)/hr.</p> <p>The combined stack emissions from P901 and P902 shall not exceed 0.027 pound lead (Pb)/hr.</p> <p>See sections A.I.2.a and A.I.2.b below.</p>
OAC rule 3745-17-07(A)(1)	See section A.I.2.c, below.
OAC rule 3745-17-11(B)(1)	See section A.I.2.c, below.
OAC rule 3745-17-08(B)	None, see section A.I.2.d, below.
OAC rule 3745-17-07(B)(3)	None, see section A.I.2.e, below.

<p>OAC rule 3745-31-05(C)          (synthetic minor to avoid non-attainment new source review)</p>	<p>The combined stack emissions from P901 and P902 shall not exceed 41.7tons PM<sub>10</sub>/yr, based on a rolling, 12-month summation of monthly production rates.</p> <p>The combined fugitive emissions from P901 and P902 shall not exceed 58.0 tons PM<sub>10</sub>/yr, based on a rolling, 12-month summation of monthly production rates.</p> <p>The combined stack and fugitive emissions from P901 and P902 shall not exceed 23.9 tons SO<sub>2</sub>/yr, based on a rolling, 12-month summation of monthly production rates.</p> <p>The combined stack and fugitive emissions from P901 and P902 shall not exceed 45.2 tons NO<sub>x</sub>/yr, based on a rolling, 12-month summation of monthly production rates.</p> <p>The combined stack and fugitive emissions from P901 and P902 shall not exceed 357 tons CO/yr, based on a rolling, 12-month summation of monthly production rates.</p> <p>The combined stack emissions from P901 and P902 shall not exceed 41.1 tons OC/yr, based on a rolling, 12-month summation of monthly production rates.</p> <p>The combined stack emissions from P901 and P902 shall not exceed shall not exceed 0.089 ton Pb/yr, based on a rolling, 12-month summation of monthly production rates.</p> <p>The combined fugitive emissions from P901 and P902 shall not exceed 0.124 ton Pb /yr, based on a rolling, 12-month summation of monthly production rates.</p> <p>The combined stack and fugitive emissions from P901 and P902 shall not exceed 6.0 ton total metal HAP/yr, based on a rolling, 12-month summation of monthly production rates.</p> <p>See sections A.I.2.h and A.II.1, below.</p>
<p>OAC rule 3745-31-10(c)</p>	<p>See Part II, Section A.</p>

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<p>40CFR 63 Subpart ZZZZZ § 63.10881, § 63.10890, § 63.10895(c)(1), § 63.10896, § 63.10898</p> <p>In accordance with 40CFR § 63.10880, the initial applicability of area source to a large foundry shall be based on the facility's melt production for the calendar year 2008.</p>	<p>An existing steel foundry shall not discharge to the atmosphere emissions from any metal melting furnace or group of metal melting furnaces 0.8 pound of particulate emissions (PE) per ton of metal charged or 0.06 pound of total metal HAP per ton of metal charged.</p> <p>An existing steel foundry shall not discharge to the atmosphere fugitive emissions from foundry operations that exhibit opacity greater than 20 percent, as a 6-minute average, except for one 6-minute average per hour that does not exceed 30 percent.</p> <p>See sections A.1.2.f, A.1.2.g, A.1.2.h and A.1.2.i below.</p>
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**2. Additional Terms and Conditions**

- 2.a** The visible particulate emissions from the baghouse stack serving this emissions unit shall not exceed 0 percent opacity, as a 6-minute average, when one or more of the emissions units are in operation.
- 2.b** Visible fugitive particulate emissions from the roof monitor shall not exceed 20 percent opacity, as a 6-minute average, during any one hour observation period.
- (OAC rule 3745-31-05(A)(3) )
- 2.c** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- 2.d** This emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08, therefore, the requirements of OAC rule 3745-17-08(B), which requires the installation of reasonably available control measures to prevent fugitive dust, do not apply to this emissions unit pursuant to OAC rule 3745-17-08(A)(1).
- [OAC 3745-17-08(A)(1)]
- 2.e** This emissions unit is exempt from the visible particulate emission limitations for fugitive dust, specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e), because the emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08.

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**Griffin Wheel Company**

**DTI Application: 01 12147**

**Facility ID: 0125100987**

Emissions Unit ID: P901

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[OAC 3745-17-07(B)(11)(e)]

- 2.f** No later than January 2, 2009, the permittee shall comply with the Pollution Prevention Management Practices for an Existing Affected Source by keeping a copy of the material specifications onsite and readily available to all personnel with material acquisition duties, and provide a copy to each of the facility's scrap providers. The permittee may comply by updating, if necessary, the "Melted Metals Scrap Specifications" plan, under which the permittee currently operates. The permittee may maintain restricted metallic scrap and general iron and steel scrap provided the metallic scrap remains segregated until charge make-up.

(40CFR 63 Subpart ZZZZZ § 63.10885)

- 2.g** No later than January 2, 2009 and to comply with mercury requirements for motor vehicle scrap, the permittee must procure the motor vehicle scrap pursuant to one of the 3 compliance options for each scrap provider, contract, or shipment:

(40CFR 63 Subpart ZZZZZ § 63.10885)

- 2.h** No later than January 2, 2009, the permittee must operate a capture and collection system for each metal melting furnace that meets accepted engineering standards, such as those published by the American Conference of Governmental Industrial Hygienists. The permittee shall not discharge to the atmosphere emissions from any metal melting furnace or group of all metal melting furnaces that exceed, 0.8 pounds of particulate matter (PM) per ton of metal charged or 0.06 pounds of total metal HAP per ton of metal charged.

(40CFR 63 Subpart ZZZZZ § 63.10895)

- 2.i** No later than January 2, 2009, the permittee shall prepare and operate according to a written operation and maintenance (O&M) plan for the emissions control device serving this emissions unit that contains at a minimum: general facility and contact information; positions responsible for inspecting, maintaining and repairing emissions control devices which are used to comply with this subpart; description of items, equipment and conditions that will be inspected, including an inspection schedule for the items, equipment and conditions. For baghouses that are equipped with bag leak detection systems, the O&M plan must include the site-specific monitoring plan; identity and estimated quantity of replacement parts that will be maintained in inventory; and the permittee may use any other O&M, preventative maintenance, or similar plan to demonstrate

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compliance with the requirement for an O&M plan.

(40CFR 63 Subpart ZZZZZ § 63.10896)

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**II. Operational Restrictions**

1. The permittee requested a federally enforceable limitation on the annual production rate for purposes of limiting potential to emit to avoid non-attainment new source review. Therefore, the maximum annual production for emissions units P901 and P902, shall not exceed 256,500 tons based upon a rolling, 12-month summation of monthly production.

Emissions units P901 and P902 have been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summation of the monthly steel production rates upon issuance of this permit.

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

1. The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions units are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

Whenever the monitored value for the pressure drop deviates from the limit or range specified in this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

Pressure Drop Range is 3 - 10 inches of water.

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

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

**Griffin Wheel Company**

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**Facility ID: 0125100987**

Emissions Unit ID: P901

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;

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- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

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

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

- 2. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the electric arc furnace shop roof monitors serving this emissions unit. The visible emission checks shall be performed during periods when visible particulate emissions are expected to occur (e.g., during tapping or lancing operations for the electric arc furnace). 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 and location of the emissions;
  - b. the operation(s) occurring during the visible emission observation (e.g., tapping or lancing of the electric arc furnace, etc...).
  - c. whether the emissions are representative of normal operations;
  - d. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - e. the total duration of any visible emission incident; and
  - f. any corrective actions taken to minimize or eliminate the visible emissions.

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3. If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (e) above or continue the visible emission check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.
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 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.
5. The permittee shall maintain a monthly record of the tons of steel produced in emissions units P901 and P902. Compliance with the annual production restriction shall be based upon a rolling, 12-month summation calculated by summing the monthly record for the current month with the previous 11 months of the monthly records for P901 and P902.

(40CFR 63 Subpart ZZZZZ § 63.10899)

6. Following the notification date of January 2, 2009, the permittee shall conduct an initial inspection for the baghouse no later than 60 days after the applicable compliance date. Following the initial inspections, periodic inspections and maintenance of each PE control device must be performed with the results of each initial and periodic inspection and any maintenance action recorded in a logbook.
  - a. for the initial inspection, the permittee must inspect and maintain the baghouse according to the following requirements:
    - i. visually inspect the system ductwork and baghouse units for leaks; and
    - ii. inspect the inside of each baghouse for structural integrity and fabric filter condition.

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- b following the initial inspection, the permittee must inspect and maintain the baghouse according to the following requirements:
  - i. each month, visually inspect the system ductwork for leaks;
  - ii. every 6 months, inspect the interior of the baghouse for structural integrity and determine the condition of the fabric filter.

(40CFR 63 Subpart ZZZZZ § 63.10897 )

- 7. Following the notification date of January 2, 2009 and as an alternative to the baghouse inspection requirements listed in section III.6, above, the permittee may install, operate, and maintain a bag leak detection system for each negative pressure baghouse or positive pressure baghouse,. If this option is selected, the bag leak detection system must be installed, operated, and maintained according to the following requirements:
  - a. the system must be certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic meter (0.00044 grains per actual cubic foot) or less;
  - b. the bag leak detection system sensor must provide output of relative particulate matter loadings that shall be continuously recorded using a strip chart recorder, data logger, or other means as the output from the bag leak detection system;
  - c. the system must be equipped with an alarm that will sound when an increase in relative particulate loadings is detected over the alarm set point established in the operation and maintenance plan, and the alarm must be located such that it can be heard by the appropriate plant personnel;
  - d. the initial adjustment of the system must, at minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points. If the system is equipped with an alarm delay time feature, you also must adjust the alarm delay time;
  - e. following the initial adjustment, sensitivity or range, averaging period, alarm set point, or alarm delay time may not be adjust ed. Except, once per quarter, the sensitivity of the bag leak detection system may be adjusted to account for seasonable effects including temperature and humidity;
  - f. for negative pressure baghouses that are discharged to the atmosphere through

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a stack, the bag leak detector sensor must be installed downstream of the baghouse.

(40CFR 63 Subpart ZZZZZ § 63.10899)

8. Following the notification date of January 2, 2009, the permittee shall maintain files of all information (including all reports and notifications) for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record collected under section III.6 and III.7, above. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

(40CFR 63 Subpart ZZZZZ § 63.10899)

9. Following the notification date of January 2, 2009, the permittee must prepare and operate at all times according to a written operation and maintenance (O&M) plan for each control device for an emissions source subject to a PM, metal HAP, or opacity emissions limit in § 63.10895. The permittee must maintain a copy of the O&M plan at the facility and make it available for review upon request. At a minimum, each plan must contain the following information:
  - a. general facility and contact information;
  - b. positions responsible for inspecting, maintaining, and repairing emissions control devices which are used to comply with this subpart;
  - c. description of items, equipment, and conditions that will be inspected, including an inspection schedule for the items, equipment, and conditions. For baghouses that are equipped with bag leak detection systems, the O&M plan must include the site-specific monitoring plan required in § 63.10897(d)(2).
  - d. identity and estimated quantity of the replacement parts that will be maintained in inventory; and
  - e. you may use any other O&M, preventative maintenance, or similar plan which addresses the requirements in Section 9.a through 9.e of this section to demonstrate compliance with the requirements for an O&M plan.

(40CFR 63 Subpart ZZZZZ § 63.10896)

10. Following the notification date of January 2, 2009 and if the permittee uses emissions averaging, records of the monthly metal melting rate for each furnace must be maintained on-site, with records of the calculated pounds of PM or total metal HAP per ton of metal melted for the group of all metal melting furnaces.

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(40CFR 63 Subpart ZZZZZ § 63.10899)

11. Following the notification date of January 2, 2009, and if applicable, the permittee must keep records for bag leak detection systems as follows:
  - a. records of the bag leak detection system output;
  - b. records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings; and
  - c. the date and time of all bag leak detection system alarms, and for each valid alarm, the time you initiated corrective action, the corrective action taken, and the date on which corrective action was completed.

(40CFR 63 Subpart ZZZZZ § 63.10899)

12. Following the notification date of January 2, 2009, the permittee must maintain records of capture system inspections and repairs.

(40CFR 63 Subpart ZZZZZ § 63.10899)

13. Following the notification date of January 2, 2009, the permittee must record the results of each inspection and maintenance for particulate emission control devices in a logbook (written or electronic format). The logbook must be kept onsite and make the logbook available to the Ohio EPA, CDO upon request. The permittee must maintain records of the date and time of each recorded action for a fabric filter, the results of each inspection, and the results of any maintenance performed on the bag filters.

(40CFR 63 Subpart ZZZZZ § 63.10899)

**IV. Reporting Requirements**

1. No later than January 2, 2009, the permittee must submit a written notification to the Administrator that identifies the area source as a small foundry or a large foundry.

(40CFR 63 Subpart ZZZZZ § 63.10880)

2. The permittee shall submit quarterly reports that identify the following information concerning the operation of the baghouse during the operation of the emissions unit(s):
  - a. each period of time when the pressure drop across the baghouse was outside of

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the established range;

- b. an identification of each incident of deviation described in "a" (above) where a prompt investigation was not conducted;
- c. an identification of each incident of deviation described in "a" where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
- d. an identification of each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s).

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the electric arc furnace shop roof monitors serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Central District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.
4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse stack of this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Central District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.
5. The permittee shall submit a quarterly deviation (excursion) report that identifies all exceedances of the rolling, 12-month steel production rate.

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

6. Following the notification date of January 2, 2009, the permittee shall submit a notification of compliance status before the close of business on the 30th day after the applicable compliance date, that must include the following compliance certifications, as applicable:
  - a. 'This facility has prepared, and will operate by, written material specifications for metallic scrap according to § 63.10885(a)(1) and/or This facility has prepared, and will operate by, written material specifications for general iron and steel scrap.'

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- b. 'This facility has prepared, and will operate by, written material specifications for complying with the requirements for scrap that does not contain motor vehicle scrap.'

(40CFR 63 Subpart ZZZZZ)

- 7. Following the notification date of January 2, 2009, the permittee must submit semiannual compliance reports to the Ohio EPA CDO that include, at a minimum, the following information as applicable:

- a. summary information on the number, duration, and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective action taken;
- b. summary information on the number, duration, and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other calibration checks, if applicable); and
- c. summary information on any deviation from the pollution prevention management practices and the operation and maintenance requirements and the corrective action taken.

(40CFR 63 Subpart ZZZZZ)

**V. Testing Requirements**

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

- a. Emissions Limitation:  
The combined stack emissions from P901 and P902 shall not exceed 12.7 lbs PM<sub>10</sub>/hr.

Applicable Compliance Method:

Compliance with this emissions limitation may be determined through the use of a controlled stack emission factor multiplied times the combined maximum hourly production rate: 0.325 lb PM<sub>10</sub>/ton \* 39 tons steel/hr = 12.7 lbs PM<sub>10</sub>/hr.

If required, the following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1-4 40 CFR Part

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60, Appendix A, and Method 201 40 CFR Part 51, Appendix M for particulate emissions. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

b. Emission Limitations:

The combined stack emissions from P901 and P902 shall not exceed 6.8 lbs SO<sub>2</sub>/hr.

Applicable Compliance Method:

Compliance with this emissions limitation may be determined through the use of an emission factor of 0.174 lb SO<sub>2</sub>/ton (Columbus plant emission factor) multiplied by 39 tons steel per hour (maximum hourly process rate) equal the stack emissions of 6.8 lbs/hr.

If required, the following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: 40 CFR Part 60, Appendix A, Methods 1-4 and 6 for SO<sub>2</sub> emissions. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

c. Emissions Limitation:

The combined stack emissions from P901 and P902 shall not exceed 12.9 lbs NO<sub>x</sub>/hr.

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Applicable Compliance Method:

Compliance with this emissions limitation may be determined through the use of an emission factor of 0.33 lb NO<sub>x</sub>/ton (Columbus plant emission factor) multiplied by 39 tons steel per hour (maximum hourly process rate) equal the stack emissions of 12.9 lbs/hr.

If required, the following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: 40 CFR Part 60, Appendix A, Methods 1-4 and 7 for NO<sub>x</sub> emissions. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. Emission Limitations:

The combined stack emissions from P901 and P902 shall not exceed 101.4 lbs CO/hr.

Applicable Compliance Method:

Compliance with this emissions limitation may be determined through the use of an emission factor of 2.6 lb CO/ton (Columbus plant emission factor) multiplied by 39 tons steel per hour (maximum hourly process rate) equal the stack emissions of 101.4 lbs/hr.

If required, the following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: 40 CFR Part 60, Appendix A, Methods 1-4 and 10 for CO emissions. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. Emission Limitations:

The combined stack emissions from P901 and P902 shall not exceed 11.7 lbs OC/hr.

Applicable Compliance Method:

Compliance with this emissions limitation may be determined through the use of an emission factor of 0.30 lb OC/ton (Columbus plant emission factor) multiplied by 39 tons steel per hour (maximum hourly process rate) equal the stack emissions of 11.7 lbs/hr.

If required, the following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: 40 CFR Part 60, Appendix A, Methods 1-4 and 25a for OC emissions. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

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- f. Applicable Compliance Method:  
The combined stack emissions from P901 and P902 shall not exceed 0.027 pound lead (Pb)/hr.

Applicable Compliance Method:  
Compliance with this emissions limitation may be determined through the use of a controlled emission factor for EAF steel processing of 0.000693 lbPb/ton steel (Columbus plant emission factor) multiplied by 39 tons steel per hour (maximum hourly process rate).  $0.000693 \text{ lb Pb/ton} * 39 \text{ tons/hr} = 0.027 \text{ lb Pb/hr}$

If required, the following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: 40 CFR Part 60, Appendix A, Methods 1-4 and 29 for Pb emissions. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

- g. Emission Limitations:  
The combined stack and fugitive emissions from P901 and P902 shall not exceed 45.2 tons NO<sub>x</sub>/yr, based on a rolling, 12-month summation of monthly production rates.

Applicable Compliance Method:  
Compliance with the annual emissions limitation shall be based on record keeping in section III.5, from which the rolling, 12-month summation of the monthly production records, in tons of steel, for P901 and P902 shall be multiplied by the emission factor of 0.33 lb NO<sub>x</sub>/ton (Columbus plant emission factor) and divided by 2,000 lbs/ton to yield the stack emission rate. The stack emission rate, in tons, may be divided by the hooding capture efficiency (0.935) to yield the total emission rate, in tons, from which the stack emission rate is subtracted to yield the fugitive emission rate in tons that is added back to the stack emission rate to yield the total emission rate in tons. The total potential emissions may be calculated as follows:  
 $42.3 \text{ ton NO}_x / 0.935 = 45.2 - 42.3 = 2.9 \text{ tons(fugitive)/yr} + 42.3 \text{ tons/yr} = 45.2 \text{ tons NO}_x/\text{yr}$ .

- h. Emission Limitations:  
The combined stack and fugitive emissions from P901 and P902 shall not exceed 357 tons CO/yr, based on a rolling, 12-month summation of monthly production rates.

Applicable Compliance Method:  
Compliance with the annual emissions limitation shall be based on record

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keeping in section A.III.5, from which the rolling, 12-month summation of the cumulative monthly production records for P901 and P902 shall be multiplied by the emission factor of 2.6 CO/ton (Columbus plant emission factor) and divided by 2,000 lbs/ton to yield the stack emission rate. The stack emission rate, in tons, may be divided by the hooding capture efficiency (0.935) to yield the total emission rate, in tons, from which the stack emission rate is subtracted to yield the fugitive emission rate in tons that is added back to the stack emission rate to yield the total emission rate in tons. The total potential emissions may be calculated as follows:

$$333.4 \text{ tons CO}/0.935 = 356.6 - 333.4 = 23.2 \text{ tons(fugitive)/yr} + 333.4 \text{ tons/yr} = 357 \text{ tons CO/yr.}$$

i. Emission Limitations:

The combined stack and fugitive emissions from P901 and P902 shall not exceed 41.1 tons OC/yr, based on a rolling, 12-month summation of monthly production rates.

Applicable Compliance Method:

Compliance with the annual stack emissions limitation shall be based on record keeping in section III.5, from which the rolling, 12-month summation of the cumulative monthly production records for P901 and P902 shall be multiplied by the emission factor of 0.30 lb OC/ton (Columbus plant emission factor) and divided by 2,000 lbs/ton to yield the stack emission rate. The stack emission rate, in tons, may be divided by the hooding capture efficiency (0.935) to yield the total emission rate, in tons, from which the stack emission rate is subtracted to yield the fugitive emission rate in tons that is added back to the stack emission rate to yield the total emission rate in tons. The total potential emissions may be calculated as follows:

$$38.4 \text{ tons OC}/0.935 = 41.1 - 38.4 = 2.7 \text{ tons(fugitive)/yr} + 38.4 \text{ tons/yr} = 41.1 \text{ tons OC tons/yr.}$$

j. Emission Limitations:

The combined stack and fugitive emissions from P901 and P902 shall not exceed 23.9 tons SO<sub>2</sub>/yr, based on a rolling, 12-month summation of monthly production rates.

Applicable Compliance Method:

Compliance with the annual emissions limitation shall be based on record keeping in section A.III.5, from which the rolling, 12-month summation of the cumulative monthly production records for P901 and P902 shall be multiplied by the emission factor of 0.174 lb SO<sub>2</sub>/ton (Columbus plant emission factor) and divided by 2,000 lbs/ton to yield the stack emission rate. The stack emission rate, in tons, may be divided by the hooding capture efficiency (0.935) to yield the total emission rate, in tons, from which the stack emission rate is subtracted to yield the fugitive emission rate in tons that is added back to the stack emission rate to yield the total emission rate in tons. The total potential

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emissions may be calculated as follows:

$22.3 \text{ tons SO}_2 / 0.935 = 23.9 - 22.3 = 1.6 \text{ tons(fugitive)/yr} + 22.3 \text{ tons/yr} = 23.9 \text{ tons SO}_2/\text{yr}.$

- k. Emissions Limitation:  
The combined stack emissions from P901 and P902 shall not exceed 41.7 tons PM<sub>10</sub> /yr, based on a rolling, 12-month summation of monthly production rates.;

Applicable Compliance Method:

Compliance with the annual emissions limitation shall be based on record keeping in section A.III.5, from which the rolling, 12-month summation of the cumulative monthly production records for P901 and P902.

$0.325 \text{ lb PM}_{10}/\text{ton} * 256,500 \text{ tons steel/yr} * 1 \text{ ton}/2,000 \text{ lb} = 41.7 \text{ tons PM}_{10}/\text{yr}$

- l. Emissions Limitation:  
Fugitive PM<sub>10</sub> shall not exceed 58.0 tons/yr, based on a rolling, 12-month summation of monthly emission rates, based on a rolling, 12-month summation of monthly production rates.;

Applicable Compliance Method:

Compliance with the annual emissions limitation may be determined through the use of the controlled annual emission rate in tons from section A.V.1.k above multiplied by the inverse of the percent control efficiency across the baghouse that is multiplied by the inverse of the percent capture efficiency of the hooding to derive the total uncontrolled fugitive emission rate multiplied by the percent fugitives.

fugitive:  $(41.7 \text{ tons PM}_{10}/(1 - 0.95 \text{ baghouse efficiency}) = 834 \text{ tons} / 0.935$   
capture efficiency =  $891.9 \text{ tons PM}_{10} * (0.065) = 58.0 \text{ tons PM}_{10}/\text{yr (fugitive)}$

- m. Emission Limitations:  
Pb emissions from the electric arc furnace baghouse stack shall not exceed 0.089 ton/yr, based on a rolling, 12-month summation of monthly production rates.

Applicable Compliance Method:

Compliance with the annual emissions limitation shall be based on record keeping in section A.III.5, from which the rolling, 12-month summation of the cumulative monthly production records for P901 and P902 shall be multiplied by

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0.000693 lb Pb/ton (Columbus plant emission factor).

- n. Emission Limitation:  
Fugitive Pb emissions shall not exceed 0.124 ton/yr, based on a rolling, 12-month summation of monthly production rates.

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Applicable Compliance Method:

Compliance with the annual emissions limitation may be determined through the use of the controlled annual emission rate in tons from section V.1.m above multiplied by the inverse of the percent control efficiency across the baghouse that is multiplied by the inverse of the percent capture efficiency of the hooding to derive the total uncontrolled fugitive emission rate multiplied by the percent fugitives.

o. Emission Limitation:

The permittee shall not discharge emissions into the atmosphere from any metal melting furnace or group of all metal melting furnaces that exceed 0.8 pounds of particulate emissions (PE) or 0.06 pounds of total metal HAP per ton of metal charged.

Applicable Compliance Method:

The permittee may choose to submit the results of a prior performance test for PM or total metal HAP that demonstrates compliance with the applicable emissions limit for a metal melting furnace or group of all metal melting furnaces provided the test was conducted within the last 5 years using the methods and procedures specified in this subpart and either no process changes have been made since the test, or the results of the performance test, with or without adjustments, reliably demonstrate compliance with the applicable emissions limit despite such process changes.

If the permittee chooses to submit the results of a prior performance test, a written notification must be submitted to the Administrator of the intent to use the previous test data no later than 60 days after the compliance date. The notification must contain a full copy of the performance test and contain information to demonstrate, if applicable, that either no process changes have been made since the test, or that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite such process changes.

(40CFR 63 Subpart ZZZZZ § 63.10898)

p. Emission Limitation:

The combined stack and fugitive emissions from P901 and P902 shall not exceed 6.0 tons total metal HAP/yr, based on a rolling, 12-month summation of monthly production rates.

Applicable Compliance Method:

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Compliance with the annual emissions limitation shall be based on record keeping in section A.III.5, from which the rolling, 12-month summation of the cumulative monthly production records for P901 and P902 shall be multiplied by the emission factor determined from emission testing in section A.V.p, above, plus a fugitive component for each metal HAP calculated as follows:

The permittee shall collect samples of the baghouse dust during the emission testing and analyze the dust for the percentage of antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, mercury, nickel, and selenium.

The permittee shall calculate the fugitive emissions component for each metal from the percentages by multiplying the percentages by the calculated hourly fugitive PM<sub>10</sub> component determined from Method 5 testing results. The hourly fugitive PM<sub>10</sub> component would be calculated by the following equation (lbs stack PM<sub>10</sub> / (1 - 0.95 baghouse efficiency) / 0.935 capture efficiency \* (0.065). The hourly rate shall be divided by the tons of metal melted to determine an emission factor for the fugitive component. All supporting test data, analyses and calculations shall be included with the test report.

2. Emission Limitation:

Fugitive visible particulate emissions from foundry operations shall not exhibit opacity greater than 20 percent (as a 6-minute average), except for one 6-minute average per hour that does not exceed 30 percent during any 60 minute observation period.

Applicable Compliance Method:

If required, compliance shall be demonstrated 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)(3).

Prior to the notification date of January 2, 2009, the permittee shall conduct a performance test to demonstrate initial compliance with the applicable emissions limits for each metal melting furnace or group of all metal melting furnaces that is subject to an emissions limit and for each building or structure housing foundry operations that is subject to the opacity limit for fugitive emissions. The permittee shall conduct the test within 180 days of the compliance date and report the results in your notification of compliance status.

(40CFR 63 Subpart ZZZZZ § 63.10898)

3. Emission Limitation:

Visible PE from the electric arc furnace baghouse stack shall not exceed 0% opacity, as a 6-minute average.

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Applicable Compliance Method:

If required, compliance shall be demonstrated 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)(3).

**VI. Miscellaneous Requirements**

None

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**B. State Only Enforceable Section**

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

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

**Operations, Property, and/or Equipment - (P901) - Electric arc furnace No.1 vented to baghouse 1 (19.5 tons/hr)**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-114-01	See section B.III below.

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

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

1. The permit to install for these emissions units P901 and P902 was evaluated based on the actual materials and the design parameters of the emissions units' exhaust system, as specified by the permittee in the permit application. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to these emissions units for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN 3.0, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:
  - a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions units, (as determined from the raw

Emissions Unit ID: P901

materials processed) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

- i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
  - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
  - c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "24" hours per day and "7" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$\text{TLV}/10 \times 8/X \times 5/Y = 4 \text{ TLV}/XY = \text{MAGLC}$$

- d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Toxic Contaminant: manganese

TLV (mg/m<sup>3</sup>): 0.2

Maximum Hourly Emission Rate (lbs/hr): 0.58

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 2.64

MAGLC (ug/m<sup>3</sup>): 4.78

The permittee, has demonstrated that emissions of manganese from emissions units P901 and P902, was calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

2. Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the

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predicted 1-hour maximum ground-level concentration", the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:

- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
- c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification" or if a new toxic is emitted, or the modeled toxic(s) is/are expected to exceed the previous modeled level(s), then the permittee shall apply for and obtain a final permit-to-install prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit-to-install application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and may require the permittee to submit a permit-to-install application for the increased emissions.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

3. The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):
  - a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);

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- b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);
- c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
- d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

4. The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

#### **IV. Reporting Requirements**

1. The permittee shall submit annual reports to the appropriate Ohio EPA District Office, documenting any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. If no changes to the emissions units or the exhaust stack have been made, then the report shall include a statement to this effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

#### **V. Testing Requirements**

None

#### **VI. Miscellaneous Requirements**

None

### **Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**Issued: To be entered upon final issuance****A. State and Federally Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

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

**Operations, Property, and/or Equipment - (P902) - Electric arc furnace No. 2 vented to baghouse 1 (19.5 tons/hr)**

<b>Applicable Rules/Requirements</b>	<b>Applicable Emissions Limitations/Control Measures</b>
OAC rule 3745-31-05(A)(3)	<p>The combined stack emissions from P901 and P902 shall not exceed 12.7 lbs PM<sub>10</sub>/hr.</p> <p>The combined stack emissions from P901 and P902 shall not exceed 6.8 lbs sulfur dioxide (SO<sub>2</sub>)/hr.</p> <p>The combined stack emissions from P901 and P902 shall not exceed 12.9 lbs NO<sub>x</sub>/hr.</p> <p>The combined stack emissions from P901 and P902 shall not exceed 101.4 lbs carbon monoxide (CO)/hr.</p> <p>The combined stack emissions from P901 and P902 shall not exceed 11.7 lbs organic compounds (OC)/hr.</p> <p>The combined stack emissions from P901 and P902 shall not exceed 0.027 pound lead (Pb)/hr</p> <p>See sections A.I.2.a and A.I.2.b below.</p>
OAC rule 3745-17-07(A)(1)	See section A.I.2.c, below.
OAC rule 3745-17-11(B)(1)	See section A.I.2.c, below.
OAC rule 3745-17-08(B)	None, see section A.I.2.d, below.
OAC rule 3745-17-07(B)(3)	See section A.I.2.c, below.

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<p>OAC rule 3745-31-05(C) (synthetic minor to avoid non-attainment new source review)</p>	<p>The combined stack emissions from P901 and P902 shall not exceed 30.5 tons PM<sub>10</sub>/yr, based on a rolling, 12-month summation of monthly production rates.</p> <p>The combined fugitive emissions from P901 and P902 shall not exceed 42.4 tons PM<sub>10</sub>/yr, based on a rolling, 12-month summation of monthly production rates.</p> <p>The combined stack and fugitive emissions from P901 and P902 shall not exceed 41.1 tons OC/yr, based on a rolling, 12-month summation of monthly production rates.</p> <p>The combined stack and fugitive emissions from P901 and P902 shall not exceed 45.2 tons NO<sub>x</sub>/yr, based on a rolling, 12-month summation of monthly production rates.</p> <p>The combined stack and fugitive emissions from P901 and P902 shall not exceed 23.9 tons SO<sub>2</sub>/yr, based on a rolling, 12-month summation of monthly production rates.</p> <p>The combined stack and fugitive emissions from P901 and P902 shall not exceed 357 tons CO/yr, based on a rolling, 12-month summation of monthly production rates.</p> <p>The combined stack emissions from P901 and P902 shall not exceed shall not exceed 0.081 ton Pb/yr, based on a rolling, 12-month summation of monthly production rates.</p> <p>The combined fugitive emissions from P901 and P902 shall not exceed 0.112 ton Pb /yr, based on a rolling, 12-month summation of monthly production rates.</p> <p>The combined stack and fugitive emissions from P901 and P902 shall not exceed 6.0 ton total metal HAP/yr, based on a rolling, 12-month summation of monthly production rates.</p> <p>See sections A.II.1 and A.II.1, below.</p>
<p>OAC rule 3745-31-10(c)</p>	<p>See Part II, Section A.</p>

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<p>40CFR 63 Subpart ZZZZZ  § 63.10881, § 63.10890, §  63.10895(c)(1), § 63.10896, §  63.10898</p> <p>In accordance with 40CFR §  63.10880, the initial  applicability of area source to  a large foundry shall be  based on the facility's melt  production for the calendar  year 2008.</p>	<p>An existing steel foundry shall not discharge to the atmosphere emissions from any metal melting furnace or group of metal melting furnaces 0.8 pound of particulate emissions (PE) per ton of metal charged or 0.06 pound of total metal HAP per ton of metal charged.</p> <p>An existing steel foundry shall not discharge to the atmosphere fugitive emissions from foundry operations that exhibit opacity greater than 20 percent, as a 6-minute average, except for one 6-minute average per hour that does not exceed 30 percent.</p> <p>See sections A.1.2.f, A.1.2.g, A.1.2.h and A.1.2.i below.</p>
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**2. Additional Terms and Conditions**

- 2.a** The visible particulate emissions from the baghouse stack serving this emissions unit shall not exceed 0 percent opacity, as a 6-minute average, when one or more of the emissions units are in operation.
- 2.b** Visible fugitive particulate emissions from the roof monitor shall not exceed 20 percent opacity, as a 6-minute average, during any one hour observation period.
- (OAC rule 3745-31-05(A)(3) )
- 2.c** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- 2.d** This emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08, therefore, the requirements of OAC rule 3745-17-08(B), which requires the installation of reasonably available control measures to prevent fugitive dust, do not apply to this emissions unit pursuant to OAC rule 3745-17-08(A)(1).
- [OAC 3745-17-08(A)(1)]
- 2.e** This emissions unit is exempt from the visible particulate emission limitations for fugitive dust, specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e), because the emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08.

[OAC 3745-17-07(B)(11)(e)]

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- 2.f** No later than January 2, 2009, the permittee shall comply with the Pollution Prevention Management Practices for an Existing Affected Source by keeping a copy of the material specifications onsite and readily available to all personnel with material acquisition duties, and provide a copy to each of the facility's scrap providers. The permittee may comply by updating, if necessary, the "Melted Metals Scrap Specifications" plan, under which the permittee currently operates. The permittee may maintain restricted metallic scrap and general iron and steel scrap provided the metallic scrap remains segregated until charge make-up.

(40CFR 63 Subpart ZZZZZ § 63.10885)

- 2.g** No later than January 2, 2009 and to comply with mercury requirements for motor vehicle scrap, the permittee must procure the motor vehicle scrap pursuant to one of the 3 compliance options for each scrap provider, contract, or shipment:

(40CFR 63 Subpart ZZZZZ § 63.10885)

- 2.h** No later than January 2, 2009, the permittee must operate a capture and collection system for each metal melting furnace that meets accepted engineering standards, such as those published by the American Conference of Governmental Industrial Hygienists. The permittee shall not discharge to the atmosphere emissions from any metal melting furnace or group of all metal melting furnaces that exceed, 0.8 pounds of particulate matter (PM) per ton of metal charged or 0.06 pounds of total metal HAP per ton of metal charged.

(40CFR 63 Subpart ZZZZZ § 63.10895)

- 2.i** No later than January 2, 2009, the permittee shall prepare and operate according to a written operation and maintenance (O&M) plan for the emissions control device serving this emissions unit that contains at a minimum: general facility and contact information; positions responsible for inspecting, maintaining and repairing emissions control devices which are used to comply with this subpart; description of items, equipment and conditions that will be inspected, including an inspection schedule for the items, equipment and conditions. For baghouses that are equipped with bag leak detection systems, the O&M plan must include the site-specific monitoring plan; identity and estimated quantity of replacement parts that will be maintained in inventory; and the permittee may use any other O&M, preventative maintenance, or similar plan to demonstrate compliance with the requirement for an O&M plan.

(40CFR 63 Subpart ZZZZZ § 63.10896)

## **II. Operational Restrictions**

1. The permittee requested a federally enforceable limitation on the annual production rate for purposes of limiting potential to emit to avoid non-attainment new source review. Therefore, the maximum annual production for emissions units P901 and P902, shall not exceed 256,500 tons based upon a rolling, 12-month summation of monthly production.

Emissions units P901 and P902 have been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summation of the monthly steel production rates upon issuance of this permit.

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

1. The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions units are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

Whenever the monitored value for the pressure drop deviates from the limit or range specified in this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

Pressure Drop Range is 3 - 10 inches of water.

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

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

- f. a description of the corrective action;

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- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

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

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

- 2. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the electric arc furnace shop roof monitors serving this emissions unit. The visible emission checks shall be performed during periods when visible particulate emissions are expected to occur (e.g., during tapping or lancing operations for the electric arc furnace). 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 and location of the emissions;
  - b. the operation(s) occurring during the visible emission observation (e.g., tapping or lancing of the electric arc furnace, etc...).
  - c. whether the emissions are representative of normal operations;
  - d. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - e. the total duration of any visible emission incident; and
  - f. any corrective actions taken to minimize or eliminate the visible emissions.
- 3. If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission

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incident under item (e) above or continue the visible emission check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

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 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.
  
5. The permittee shall maintain a monthly record of the tons of steel produced in emissions units P901 and P902. Compliance with the annual production restriction shall be based upon a rolling, 12-month summation calculated by summing the monthly record for the current month with the previous 11 months of the monthly records for P901 and P902.

(40CFR 63 Subpart ZZZZ § 63.10899)
  
6. Following the notification date of January 2, 2009, the permittee shall conduct an initial inspection for the baghouse no later than 60 days after the applicable compliance date. Following the initial inspections, periodic inspections and maintenance of each PE control device must be performed with the results of each initial and periodic inspection and any maintenance action recorded in a logbook.
  - a. for the initial inspection, the permittee must inspect and maintain the baghouse according to the following requirements:
    - i. visually inspect the system ductwork and baghouse units for leaks; and
    - ii. inspect the inside of each baghouse for structural integrity and fabric filter condition.
  - b. following the initial inspection, the permittee must inspect and maintain the baghouse according to the following requirements:

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- i. each month, visually inspect the system ductwork for leaks;
- ii. every 6 months, inspect the interior of the baghouse for structural integrity and determine the condition of the fabric filter.

(40CFR 63 Subpart ZZZZZ § 63.10897 )

7. Following the notification date of January 2, 2009 and as an alternative to the baghouse inspection requirements listed in section III.6, above, the permittee may install, operate, and maintain a bag leak detection system for each negative pressure baghouse or positive pressure baghouse,. If this option is selected, the bag leak detection system must be installed, operated, and maintained according to the following requirements:
  - a. the system must be certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic meter (0.00044 grains per actual cubic foot) or less;
  - b. the bag leak detection system sensor must provide output of relative particulate matter loadings that shall be continuously recorded using a strip chart recorder, data logger, or other means as the output from the bag leak detection system;
  - c. the system must be equipped with an alarm that will sound when an increase in relative particulate loadings is detected over the alarm set point established in the operation and maintenance plan, and the alarm must be located such that it can be heard by the appropriate plant personnel;
  - d. the initial adjustment of the system must, at minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points. If the system is equipped with an alarm delay time feature, you also must adjust the alarm delay time;
  - e. following the initial adjustment, sensitivity or range, averaging period, alarm set point, or alarm delay time may not be adjusted. Except, once per quarter, the sensitivity of the bag leak detection system may be adjusted to account for reasonable effects including temperature and humidity;
  - f. for negative pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detector sensor must be installed downstream of the baghouse.

(40CFR 63 Subpart ZZZZZ § 63.10899)

8. Following the notification date of January 2, 2009, the permittee shall maintain files of all information (including all reports and notifications) for at least 5 years following the

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date of each occurrence, measurement, maintenance, corrective action, report, or record collected under section III.6 and III.7, above. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

(40CFR 63 Subpart ZZZZZ § 63.10899)

- 9 Following the notification date of January 2, 2009, the permittee must prepare and operate at all times according to a written operation and maintenance (O&M) plan for each control device for an emissions source subject to a PM, metal HAP, or opacity emissions limit in § 63.10895. The permittee must maintain a copy of the O&M plan at the facility and make it available for review upon request. At a minimum, each plan must contain the following information:
- a. general facility and contact information;
  - b. positions responsible for inspecting, maintaining, and repairing emissions control devices which are used to comply with this subpart;
  - c. description of items, equipment, and conditions that will be inspected, including an inspection schedule for the items, equipment, and conditions. For baghouses that are equipped with bag leak detection systems, the O&M plan must include the site-specific monitoring plan required in § 63.10897(d)(2).
  - d. identity and estimated quantity of the replacement parts that will be maintained in inventory; and
  - e. you may use any other O&M, preventative maintenance, or similar plan which addresses the requirements in Section 9.a through 9.e of this section to demonstrate compliance with the requirements for an O&M plan.

(40CFR 63 Subpart ZZZZZ § 63.10896)

10. Following the notification date of January 2, 2009 and if the permittee uses emissions averaging, records of the monthly metal melting rate for each furnace must be maintained on-site, with records of the calculated pounds of PM or total metal HAP per ton of metal melted for the group of all metal melting furnaces.

(40CFR 63 Subpart ZZZZZ § 63.10899)

11. Following the notification date of January 2, 2009, and if applicable, the permittee must

Emissions Unit ID: P902

keep records for bag leak detection systems as follows:

- a. records of the bag leak detection system output;
- b. records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings; and
- c. the date and time of all bag leak detection system alarms, and for each valid alarm, the time you initiated corrective action, the corrective action taken, and the date on which corrective action was completed.

(40CFR 63 Subpart ZZZZZ § 63.10899)

12. Following the notification date of January 2, 2009, the permittee must maintain records of capture system inspections and repairs.

(40CFR 63 Subpart ZZZZZ § 63.10899)

13. Following the notification date of January 2, 2009, the permittee must record the results of each inspection and maintenance for particulate emission control devices in a logbook (written or electronic format). The logbook must be kept onsite and make the logbook available to the Ohio EPA, CDO upon request. The permittee must maintain records of the date and time of each recorded action for a fabric filter, the results of each inspection, and the results of any maintenance performed on the bag filters.

(40CFR 63 Subpart ZZZZZ § 63.10899)

#### **IV. Reporting Requirements**

1. No later than January 2, 2009, the permittee must submit a written notification to the Administrator that identifies the area source as a small foundry or a large foundry.  

(40CFR 63 Subpart ZZZZZ § 63.10880)
2. The permittee shall submit quarterly reports that identify the following information concerning the operation of the baghouse during the operation of the emissions unit(s):
  - a. each period of time when the pressure drop across the baghouse was outside of the established range;
  - b. an identification of each incident of deviation described in "a" (above) where a prompt investigation was not conducted;
  - c. an identification of each incident of deviation described in "a" where prompt corrective action, that would bring the pressure drop into compliance with the

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acceptable range, was determined to be necessary and was not taken; and

- d. an identification of each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s).

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the electric arc furnace shop roof monitors serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Central District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.
4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse stack of this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Central District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.
5. The permittee shall submit a quarterly deviation (excursion) report that identifies all exceedances of the rolling, 12-month steel production rate.

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

6. Prior to the notification date of January 2, 2009, the permittee shall submit a notification of compliance status before the close of business on the 30th day after the applicable compliance date, that must include the following compliance certifications, as applicable:
  - a. 'This facility has prepared, and will operate by, written material specifications for metallic scrap according to § 63.10885(a)(1) and/or This facility has prepared, and will operate by, written material specifications for general iron and steel scrap.'
  - b. 'This facility has prepared, and will operate by, written material specifications for

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complying with the requirements for scrap that does not contain motor vehicle scrap.’

(40CFR 63 Subpart ZZZZZ)

7. Following the notification date of January 2, 2009, the permittee must submit semiannual compliance reports to the Ohio EPA CDO that include, at a minimum, the following information as applicable:
  - a. summary information on the number, duration, and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective action taken;
  - b. summary information on the number, duration, and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other calibration checks, if applicable); and
  - c. summary information on any deviation from the pollution prevention management practices and the operation and maintenance requirements and the corrective action taken.

(40CFR 63 Subpart ZZZZZ)

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**V. Testing Requirements**

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

- a. Emissions Limitation:

- The combined stack emissions from P901 and P902 shall not exceed 12.7 lbs PM<sup>10</sup>/hr.;

- Applicable Compliance Method:

- Compliance with this emissions limitation may be determined through the use of a controlled stack emission factor multiplied times the combined maximum hourly production rate: 0.325 lb PM<sup>10</sup>/ton \* 39 tons steel/hr = 12.7 lbs PM<sup>10</sup>/hr.

- If required, the following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: Methods 1-4, 40 CFR Part 60, Appendix A, and Method 201, 40 CFR Part 60, Appendix A for particulate emissions. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

- b. Emission Limitations:

- The combined stack emissions from P901 and P902 shall not exceed 6.8 lbs SO<sub>2</sub>/hr.

- Applicable Compliance Method:

- Compliance with this emissions limitation may be determined through the use of an emission factor of 0.174 lb SO<sub>2</sub>/ton (Columbus plant emission factor) multiplied by 39 tons steel per hour (maximum hourly process rate) equal the stack emissions of 6.8 lbs/hr.

- If required, the following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: 40 CFR Part 60, Appendix A, Methods 1-4 and 6 for SO<sub>2</sub> emissions. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

- c. Emissions Limitation:

- The combined stack emissions from P901 and P902 shall not exceed 12.9 lbs NO<sub>x</sub>/hr.

- Applicable Compliance Method:

- Compliance with this emissions limitation may be determined through the use of

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an emission factor of 0.33 lb NO<sub>x</sub>/ton multiplied by 39 tons steel per hour (maximum hourly process rate) equal the stack emissions of 12.9 lbs/hr.

If required, the following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: 40 CFR Part 60, Appendix A, Methods 1-4 and 7 for NO<sub>x</sub> emissions. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. Emission Limitations:

The combined stack emissions from P901 and P902 shall not exceed 101.4 lbs carbon monoxide (CO)/hr.

Applicable Compliance Method:

Compliance with this emissions limitation may be determined through the use of an emission factor of 2.6 lb CO/ton (Columbus plant emission factor) multiplied by 39 tons steel per hour (maximum hourly process rate) equal the stack emissions of 101.4 lbs/hr.

If required, the following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: 40 CFR Part 60, Appendix A, Methods 1-4 and 10 for CO emissions. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. Emission Limitations:

The combined stack emissions from P901 and P902 shall not exceed 11.7 lbs OC/hr.

Applicable Compliance Method:

Compliance with this emissions limitation may be determined through the use of an emission factor of 0.30 lb OC/ton (Columbus plant emission factor) multiplied by 39 tons steel per hour (maximum hourly process rate) equal the stack emissions of 11.7 lbs/hr.

If required, the following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: 40 CFR Part 60, Appendix A, Methods 1-4 and 25a for OC emissions. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

f. Applicable Compliance Method:

The combined stack emissions from P901 and P902 shall not exceed 0.027 pound lead (Pb)/hr

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**Applicable Compliance Method:**

Compliance with this emissions limitation may be determined through the use of a controlled emission factor for EAF steel processing of 0.000693 lb Pb/ton steel (Columbus plant emission factor) multiplied by 39 tons steel per hour (maximum hourly process rate).  $0.000693 \text{ lb Pb/ton} * 39 \text{ tons/hr} = 0.027 \text{ lb Pb/hr}$

If required, the following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: 40 CFR Part 60, Appendix A, Methods 1-4 and 29 for Pb emissions. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

**g. Emission Limitations:**

The combined stack and fugitive emissions from P901 and P902 shall not exceed 45.2 tons NOx/yr, based on a rolling, 12-month summation of monthly production rates.

**Applicable Compliance Method:**

Compliance with the annual emissions limitation shall be based on record keeping in section III.5, from which the rolling, 12-month summation of the monthly production records, in tons of steel, for P901 and P902 shall be multiplied by the emission factor of 0.33 lb NOx/ton (Columbus plant emission factor) and divided by 2,000 lbs/ton to yield the stack emission rate. The stack emission rate, in tons, may be divided by the hooding capture efficiency (0.935) to yield the total emission rate, in tons, from which the stack emission rate is subtracted to yield the fugitive emission rate in tons that is added back to the stack emission rate to yield the total emission rate in tons. The total potential emissions may be calculated as follows:

$42.3 \text{ ton NOx}/0.935 = 45.2 - 42.3 = 2.9 \text{ tons(fugitive)/yr} + 42.3 \text{ tons/yr} = 45.2 \text{ tons NOx/yr.}$

**h. Emission Limitations:**

The combined stack and fugitive emissions from P901 and P902 shall not exceed 357 tons CO/yr, based on a rolling, 12-month summation of monthly production rates.

**Applicable Compliance Method:**

Compliance with the annual emissions limitation shall be based on record keeping in section A.III.5, from which the rolling, 12-month summation of the cumulative monthly production records for P901 and P902 shall be multiplied by the emission factor of 2.6 CO/ton (Columbus plant emission factor) and divided by 2,000 lbs/ton to yield the stack emission rate. The stack emission rate, in tons, may be divided by the hooding capture efficiency (0.935) to yield the total emission rate, in tons, from which the stack emission rate is subtracted to yield the fugitive emission rate in tons that is added back to the stack emission rate to yield the total emission rate in tons. The total potential emissions may be

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calculated as follows:

$333.4 \text{ tons CO} / 0.935 = 356.6 - 333.4 = 23.2 \text{ tons(fugitive)/yr} + 333.4 \text{ tons/yr} =$   
 $357 \text{ tons CO/yr.}$

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i. Emission Limitations:

The combined stack and fugitive emissions from P901 and P902 shall not exceed 41.1 tons OC/yr, based on a rolling, 12-month summation of monthly production rates.

Applicable Compliance Method:

Compliance with the annual stack emissions limitation shall be based on record keeping in section III.5, from which the rolling, 12-month summation of the cumulative monthly production records for P901 and P902 shall be multiplied by the emission factor of 0.30 lb OC/ton (Columbus plant emission factor) and divided by 2,000 lbs/ton to yield the stack emission rate. The stack emission rate, in tons, may be divided by the hooding capture efficiency (0.935) to yield the total emission rate, in tons, from which the stack emission rate is subtracted to yield the fugitive emission rate in tons that is added back to the stack emission rate to yield the total emission rate in tons. The total potential emissions may be calculated as follows:

$38.4 \text{ tons OC} / 0.935 = 41.1 - 38.4 = 2.7 \text{ tons(fugitive)/yr} + 38.4 \text{ tons/yr} = 41.1 \text{ tons OC tons/yr.}$

j. Emission Limitations:

The combined stack and fugitive emissions from P901 and P902 shall not exceed 23.9 tons SO<sub>2</sub>/yr, based on a rolling, 12-month summation of monthly production rates.

Applicable Compliance Method:

Compliance with the annual emissions limitation shall be based on record keeping in section A.III.5, from which the rolling, 12-month summation of the cumulative monthly production records for P901 and P902 shall be multiplied by the emission factor of 0.174 lb SO<sub>2</sub>/ton (Columbus plant emission factor) and divided by 2,000 lbs/ton to yield the stack emission rate. The stack emission rate, in tons, may be divided by the hooding capture efficiency (0.935) to yield the total emission rate, in tons, from which the stack emission rate is subtracted to yield the fugitive emission rate in tons that is added back to the stack emission rate to yield the total emission rate in tons. The total potential emissions may be calculated as follows:

$22.3 \text{ tons SO}_2 / 0.935 = 23.9 - 22.3 = 1.6 \text{ tons(fugitive)/yr} + 22.3 \text{ tons/yr} = 23.9 \text{ tons SO}_2/\text{yr.}$

k. Emissions Limitation:

The combined stack emissions from P901 and P902 shall not exceed 41.7 tons PM<sub>10</sub> /yr, based on a rolling, 12-month summation of monthly production rates.

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Applicable Compliance Method:

Compliance with the annual emissions limitation shall be based on record keeping in section A.III.5, from which the rolling, 12-month summation of the cumulative monthly production records for P901 and P902.

$$0.325 \text{ lb PM}_{10}/\text{ton} * 256,500 \text{ tons steel/yr} * 1 \text{ ton}/2,000 \text{ lb} = 41.7 \text{ tons PM}_{10}/\text{yr}$$

I. Emissions Limitation:

Fugitive PM<sub>10</sub> shall not exceed 58.0 tons/yr, based on a rolling, 12-month summation of monthly emission rates, based on a rolling, 12-month summation of monthly production rates.;

Applicable Compliance Method:

Compliance with the annual emissions limitation may be determined through the use of the controlled annual emission rate in tons from section A.V.1.k above multiplied by the inverse of the percent control efficiency across the baghouse that is multiplied by the inverse of the percent capture efficiency of the hooding to derive the total uncontrolled fugitive emission rate multiplied by the percent fugitives.

$$\text{fugitive: } (41.7 \text{ tons PM}_{10}/(1 - 0.95 \text{ baghouse efficiency}) = 834 \text{ tons} /0.935 \text{ capture efficiency} = 891.9 \text{ tons PM}_{10} * (0.065) = 58.0 \text{ tons PM}_{10}/\text{yr (fugitive)}$$

m. Emission Limitations:

Pb emissions from the electric arc furnace baghouse stack shall not exceed 0.089 ton/yr, based on a rolling, 12-month summation of monthly production rates.

Applicable Compliance Method:

Compliance with the annual emissions limitation shall be based on record keeping in section A.III.5, from which the rolling, 12-month summation of the cumulative monthly production records for P901 and P902 shall be multiplied by 0.000693 lb Pb/ton (Columbus plant emission factor).

n. Emission Limitation:

Fugitive Pb emissions shall not exceed 0.124 ton/yr, based on a rolling, 12-month summation of monthly production rates.

Applicable Compliance Method:

Compliance with the annual emissions limitation may be determined through the use of the controlled annual emission rate in tons from section V.1.m above

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multiplied by the inverse of the percent control efficiency across the baghouse that is multiplied by the inverse of the percent capture efficiency of the hooding to derive the total uncontrolled fugitive emission rate multiplied by the percent fugitives.

- o. Emission Limitation:  
The permittee shall not discharge emissions into the atmosphere from any metal melting furnace or group of all metal melting furnaces that exceed 0.8 pounds of particulate emissions (PE) or 0.06 pounds of total metal HAP per ton of metal charged.

Applicable Compliance Method:

The permittee may choose to submit the results of a prior performance test for PM or total metal HAP that demonstrates compliance with the applicable emissions limit for a metal melting furnace or group of all metal melting furnaces provided the test was conducted within the last 5 years using the methods and procedures specified in this subpart and either no process changes have been made since the test, or the results of the performance test, with or without adjustments, reliably demonstrate compliance with the applicable emissions limit despite such process changes.

If the permittee chooses to submit the results of a prior performance test, a written notification must be submitted to the Administrator of the intent to use the previous test data no later than 60 days after the compliance date. The notification must contain a full copy of the performance test and contain information to demonstrate, if applicable, that either no process changes have been made since the test, or that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite such process changes.

(40CFR 63 Subpart ZZZZ § 63.10898)

- p. Emission Limitation:  
The combined stack and fugitive emissions from P901 and P902 shall not exceed 6.0 tons total metal HAP/yr, based on a rolling, 12-month summation of monthly production rates.

Applicable Compliance Method:

Compliance with the annual emissions limitation shall be based on record keeping in section A.III.5, from which the rolling, 12-month summation of the cumulative monthly production records for P901 and P902 shall be multiplied by the emission factor determined from emission testing in section A.V.p, above, plus a fugitive component for each metal HAP calculated as follows:

The permittee shall collect samples of the baghouse dust during the emission testing and analyze the dust for the percentage of antimony, arsenic, beryllium,

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cadmium, chromium, cobalt, lead, manganese, mercury, nickel, and selenium.

The permittee shall calculate the fugitive emissions component for each metal from the percentages by multiplying the percentages by the calculated hourly fugitive PM<sup>10</sup> component determined from USEPA Method 201/202 testing results. The hourly fugitive PM<sup>10</sup> component would be calculated by the following equation  $(\text{lbs stack PM}^{10} / (1 - 0.95 \text{ baghouse efficiency}) / 0.935 \text{ capture efficiency} * (0.065))$ . The hourly rate shall be divided by the tons of metal melted to determine an emission factor for the fugitive component. All supporting test data, analyses and calculations shall be included with the test report.

2. Emission Limitation:

Fugitive visible particulate emissions from foundry operations shall not exhibit opacity greater than 20 percent (as a 6-minute average), except for one 6-minute average per hour that does not exceed 30 percent during any 60 minute observation period.

Applicable Compliance Method:

If required, compliance shall be demonstrated 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)(3).

The permittee shall conduct a performance test to demonstrate initial compliance with the applicable emissions limits for each metal melting furnace or group of all metal melting furnaces that is subject to an emissions limit and for each building or structure housing foundry operations that is subject to the opacity limit for fugitive emissions. The permittee shall conduct the test within 180 days of the compliance date and report the results in your notification of compliance status.

(40CFR 63 Subpart ZZZZZ § 63.10898)

3. Emission Limitation:

Visible PE from the electric arc furnace baghouse stack shall not exceed 0% opacity, as a 6-minute average.

Applicable Compliance Method:

If required, compliance shall be demonstrated 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)(3).

**VI. Miscellaneous Requirements**

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**Griffin Wheel Company**

**DTI Application: 01 12147**

**Facility ID: 0125100987**

Emissions Unit ID: P902

None

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**B. State Only Enforceable Section**

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

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

**Operations, Property, and/or Equipment - (P902) - Electric arc furnace No. 2 vented to baghouse 1 (19.5 tons/hr)**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-114-01	See section B.III below.

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

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

1. The permit to install for this/these emissions units P901 and P902 was evaluated based on the actual materials and the design parameters of the emissions unit(s)' exhaust system, as specified by the permittee in the permit application. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN 3.0, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:
  - a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw

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materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

- i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
  - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
  - c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "24" hours per day and "7" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$

- d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Toxic Contaminant: manganese

TLV (mg/m<sup>3</sup>): 0.2

Maximum Hourly Emission Rate (lbs/hr): 0.58

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 2.64

MAGLC (ug/m<sup>3</sup>): 4.78

The permittee, has demonstrated that emissions of manganese from emissions units P901 and P902, was calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

Emissions Unit ID: P902

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

2. Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration", the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:
  - a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
  - c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification" or if a new toxic is emitted, or the modeled toxic(s) is/are expected to exceed the previous modeled level(s), then the permittee shall apply for and obtain a final permit-to-install prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit-to-install application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and may require the permittee to submit a permit-to-install application for the increased emissions.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

3. The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):
  - a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);

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- b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);
- c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
- d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

4. The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

**IV. Reporting Requirements**

1. The permittee shall submit annual reports to the appropriate Ohio EPA District Office or local air agency, documenting any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. If no changes to the emissions unit(s) or the exhaust stack have been made, then the report shall include a statement to this effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.

[ORC 3704.03(F)(3)(c) and F(4)], [OAC rule 3745-114-01], Option A, Engineering Guide #70

**V. Testing Requirements**

None

**Griffin Wheel Company**  
DTI Application: 01 12147

**Facility ID: 0125100987**

Emissions Unit ID: P902

**VI. Miscellaneous Requirements**

None

**NEW SOURCE REVIEW FORM B**

PTI Number: 01-12147 Facility ID: 0125100987

FACILITY NAME Griffin Wheel Company

FACILITY DESCRIPTION 2 - electric arc furnaces P901 and P902. CITY/TWP Groveport

SIC CODE 3325 SCC CODE 3-04-007-01 EMISSIONS UNIT ID P901

EMISSIONS UNIT DESCRIPTION Electric arc furnace No.1 vented to baghouse 1 (19.5 tons/hr)

DATE INSTALLED 07/31/07

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

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM <sub>10</sub>	non-attainment			12.7	41.7,58.0 fug
Sulfur Dioxide	attainment			6.9	22.3
Organic Compounds	non-attainment			9.4	38.4
Nitrogen Oxides	attainment			12.2	38.4
Carbon Monoxide	attainment			90.1	327.5
Lead				0.027	0.212
Other: Air Toxics	Manganese			0.58	1.8

APPLICABLE FEDERAL RULES:

NSPS?

NESHAP?

PSD?

OFFSET POLICY?

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

**Enter Determination** Vent to hooding and baghouse with 93.5% capture and 0% opacity from stack.IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? yes

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

**TOXIC AIR CONTAMINANTS**

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

AIR TOXICS MODELING PERFORMED\*? x YES      NOIDENTIFY THE AIR CONTAMINANTS: Manganese

**7 NEW SOURCE REVIEW FORM B**

PTI Number: 01-12147 Facility ID: 0125100987

FACILITY NAME Griffin Wheel Company

FACILITY DESCRIPTION 2 - electric arc furnaces P901 and CITY/TWP Grovenort

Emissions Unit ID: P902

SIC CODE 3325 SCC CODE 3-04-007-01 EMISSIONS UNIT ID P902

EMISSIONS UNIT DESCRIPTION Electric arc furnace No. 2 vented to baghouse 1 (19.5 tons/hr)

DATE INSTALLED 07/31/07

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

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM <sub>10</sub>	non-attainment			12.7	41.7,58.0 fug
Sulfur Dioxide	attainment			6.8	22.3
Organic Compounds	non-attainment			11.7	38.4
Nitrogen Oxides	attainment			12.9	42.6
Carbon Monoxide	attainment			101.4	327.5
Lead				0.027	0.212
Other: Air Toxics	Manganese			0.58	1.95

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

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

Enter Determination Vent to hooding and baghouse with 93.5% capture and 0% opacity from stack.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? yes

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

**TOXIC AIR CONTAMINANTS**

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

AIR TOXICS MODELING PERFORMED\*? x YES      NO

IDENTIFY THE AIR CONTAMINANTS: Manganese