



John R. Kasich, Governor  
Mary Taylor, Lt. Governor  
Craig W. Butler, Director

5/31/2016

Certified Mail

Mr. Jeffrey Brown  
TimkenSteel Corporation - Faircrest Steel Plant  
1835 Dueber Avenue, S.W.  
Canton, OH 44706

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL  
Facility ID: 1576222001  
Permit Number: P0119986  
Permit Type: Administrative Modification  
County: Stark

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
No	MAJOR GHG
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Dear Permit Holder:

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

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**
- **What should you do if you notice a spill or environmental emergency?**

**How to appeal this permit**

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

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

## **How to save money, reduce pollution and reduce energy consumption**

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

## **How to give us feedback on your permitting experience**

Please complete a survey at [www.epa.ohio.gov/survey.aspx](http://www.epa.ohio.gov/survey.aspx) and give us feedback on your permitting experience. We value your opinion.

## **How to get an electronic copy of your permit**

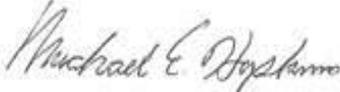
This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc) by clicking the "Search for Permits" link under the Permitting topic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

## **What should you do if you notice a spill or environmental emergency?**

Any spill or environmental emergency which may endanger human health or the environment should be reported to the Emergency Response 24-HOUR EMERGENCY SPILL HOTLINE toll-free at (800) 282-9378. Report non-emergency complaints to the appropriate district office or local air agency.

If you have any questions regarding your permit, please contact Canton City Health Department at (330)489-3385 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Michael E. Hopkins, P.E.  
Assistant Chief, Permitting Section, DAPC

Cc: U.S. EPA  
Canton; Pennsylvania; West Virginia



**FINAL**

**Division of Air Pollution Control  
Permit-to-Install**

for

**TimkenSteel Corporation - Faircrest Steel Plant**

Facility ID:	1576222001
Permit Number:	P0119986
Permit Type:	Administrative Modification
Issued:	5/31/2016
Effective:	5/31/2016





**Division of Air Pollution Control**  
**Permit-to-Install**  
 for  
 TimkenSteel Corporation - Faircrest Steel Plant

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**Final Permit-to-Install**  
TimkenSteel Corporation - Faircrest Steel Plant  
**Permit Number:** P0119986  
**Facility ID:** 1576222001  
**Effective Date:** 5/31/2016

## Authorization

Facility ID: 1576222001  
Facility Description: Steel mill w/ EAF  
Application Number(s): M0003581, M0003712, M0003734, M0003940  
Permit Number: P0119986  
Permit Description: Agency-initiated administrative modifications to F102 (added opacity limit and RACM for fugitive dust and defined the sq ft areas of different parking and roadway surface types); P107, P109, P111, P112 and P116 (added VE limits per OAC rules 3745-17-07 and -17-08, added operational restriction requiring use of baghouse and added monitoring of baghouse pressure drop); P131 (increased BTU rating from 20 mmBtu/hr to 30 mmBtu/hr, added fuel usage restriction and corrected BAT/BACT accordingly).  
Permit Type: Administrative Modification  
Permit Fee: \$0.00  
Issue Date: 5/31/2016  
Effective Date: 5/31/2016

This document constitutes issuance to:

TimkenSteel Corporation - Faircrest Steel Plant  
1835 Dueber Avenue, S.W.  
Canton, OH 44706

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

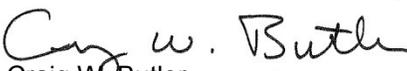
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Canton City Health Department  
420 Market Avenue  
Canton, OH 44702-1544  
(330)489-3385

The above named entity is hereby granted a Permit-to-Install for the emissions unit(s) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the 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

  
Craig W. Butler  
Director



## Authorization (continued)

Permit Number: P0119986

Permit Description: Agency-initiated administrative modifications to F102 (added opacity limit and RACM for fugitive dust and defined the sq ft areas of different parking and roadway surface types); P107, P109, P111, P112 and P116 (added VE limits per OAC rules 3745-17-07 and -17-08, added operational restriction requiring use of baghouse and added monitoring of baghouse pressure drop); P131 (increased BTU rating from 20 mmBtu/hr to 30 mmBtu/hr, added fuel usage restriction and corrected BAT/BACT accordingly).

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

<b>Emissions Unit ID:</b> Company Equipment ID: Superseded Permit Number: General Permit Category and Type:	<b>F102</b> Roadways and Parking Areas 15-144 Not Applicable
<b>Emissions Unit ID:</b> Company Equipment ID: Superseded Permit Number: General Permit Category and Type:	<b>P111</b> Stool Plate Turnover Device 15-144 Not Applicable
<b>Emissions Unit ID:</b> Company Equipment ID: Superseded Permit Number: General Permit Category and Type:	<b>P131</b> Natural gas-fired continuous caster P0119479 Not Applicable

**Group Name: Particulate Units**

<b>Emissions Unit ID:</b>	<b>P107</b>
Company Equipment ID:	Billet Grinders
Superseded Permit Number:	15-144
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P109</b>
Company Equipment ID:	Shot Blaster
Superseded Permit Number:	15-144
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P112</b>
Company Equipment ID:	Truck Dump Station
Superseded Permit Number:	15-144
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P116</b>
Company Equipment ID:	Melt Shop Additive Bins
Superseded Permit Number:	15-144
General Permit Category and Type:	Not Applicable



**Final Permit-to-Install**  
TimkenSteel Corporation - Faircrest Steel Plant  
**Permit Number:** P0119986  
**Facility ID:** 1576222001  
**Effective Date:**5/31/2016

## **A. Standard Terms and Conditions**

## **1. Federally Enforceable Standard Terms and Conditions**

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
  - (1) Standard Term and Condition A.2.a), Severability Clause
  - (2) Standard Term and Condition A.3.c) through A. 3.e)General Requirements
  - (3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements
  - (4) Standard Term and Condition A.9., Reporting Requirements
  - (5) Standard Term and Condition A.10., Applicability
  - (6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install
  - (7) Standard Term and Condition A.14., Public Disclosure
  - (8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
  - (9) Standard Term and Condition A.16., Fees
  - (10) Standard Term and Condition A.17., Permit Transfers

## **2. Severability Clause**

- a) 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.
- b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any of 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. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

## **3. General Requirements**

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

#### **4. Monitoring and Related Record Keeping 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:
  - (1) The date, place (as defined in the permit), and time of sampling or measurements.
  - (2) The date(s) analyses were performed.
  - (3) The company or entity that performed the analyses.
  - (4) The analytical techniques or methods used.
  - (5) The results of such analyses.
  - (6) 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:
  - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Canton City Health Department.

- (2) 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 Canton City Health Department. The written 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 A.15. below if no deviations occurred during the quarter.
  - (3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the Canton City Health Department 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.
  - (4) This permit is for an emissions unit located at a Title V facility. 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.

## **5. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the Canton City Health Department 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).

## **6. Compliance Requirements**

- a) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the appropriate Ohio EPA District Office or contracted

local air agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the electronic signature date shall constitute the date that the required application, notification or report is considered to be "submitted". Any document requiring signature may be represented by entry of the personal identification number (PIN) by responsible official as part of the electronic submission process or by the scanned attestation document signed by the Authorized Representative that is attached to the electronically submitted written report.

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:
- (1) 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.
  - (2) 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.
  - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - (4) 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 Canton City Health Department 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:
- (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - (2) 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.

## **7. Best Available Technology**

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.

**8. Air Pollution Nuisance**

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

**9. 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 Canton City Health Department.
- 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 Canton City Health Department. 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, 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.)

**10. 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 modification of any other emissions unit(s) not exempt from the requirement to obtain a Permit-to-Install.

**11. Construction of New Sources(s) and Authorization to Install**

- a) 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.
- b) If applicable, authorization to install any new 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 has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. 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 permittee shows good cause for any such extension.

- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update electronically will constitute notifying the Director of the permanent shutdown of the affected emissions unit(s).
- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

Unless otherwise exempted, no emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31 and OAC Chapter 3745-77 if the restarted operation is subject to one or more applicable requirements.

- e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a deviation report, air fee emission report, or other any reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

## 12. Permit-To-Operate Application

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 operation of the proposed new or modified source(s) as authorized by this permit would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d) must be obtained before operating the source in a manner that would violate the existing Title V permit requirements.

**13. Construction Compliance Certification**

The applicant shall identify the following dates in the "Air Services" facility profile for each new emissions unit identified in this permit.

- a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.
- b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

**14. 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.

**15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations**

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

**16. 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.

**17. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The new owner must update and submit the ownership information via the "Owner/Contact Change" functionality in "Air Services" once the transfer is legally completed. The change must be submitted through "Air Services" within thirty days of the ownership transfer date.

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

**19. 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.



**Final Permit-to-Install**  
TimkenSteel Corporation - Faircrest Steel Plant  
**Permit Number:** P0119986  
**Facility ID:** 1576222001  
**Effective Date:**5/31/2016

## **B. Facility-Wide Terms and Conditions**

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
  - a) [OAC rule 3745-31-10(A)(3)]

The permittee shall calculate the NO<sub>x</sub>, SO<sub>2</sub>, PM, PM<sub>10</sub>/PM<sub>2.5</sub>, CO, VOC, and Pb emissions from the emissions units affected by the Project (i.e., emissions units: P102, P130, and P131) as identified in the permit to install application and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change.
  - b) [OAC rule 3745-31-10(A)(5)]

The permittee shall submit a report to the director if the annual emissions, in tons per year as calculated pursuant to OAC rule 3745-31-10(A)(3), from the Project, exceed 40 tons per year of NO<sub>x</sub>, VOC, or SO<sub>2</sub>, 100 tons per year of CO, 25 tons per year of PM, 15 tons per year of PM<sub>10</sub>, 10 tons per year of PM<sub>2.5</sub>, or 0.6 ton per year of lead (Pb) per year, (i.e., the baseline actual emissions increase by a significant amount) and if such emissions differ from the preconstruction projection as documented and maintained pursuant to OAC rule 3745-31-10(A)(1). Such reports shall be submitted to the director within 60 days after the end of such year. The report shall contain the following:

    - (1) The name, address, and telephone number of the major stationary source; and
    - (2) The annual emissions as calculated pursuant to OAC rule 3745-31-10(A)(3).



**Final Permit-to-Install**  
TimkenSteel Corporation - Faircrest Steel Plant  
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## **C. Emissions Unit Terms and Conditions**



**1. F102, Roadways and Parking Areas**

**Operations, Property and/or Equipment Description:**

Paved and Unpaved Roadways and Parking Areas used by vehicles with 4 to 32 wheels

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
  - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (Supersedes PTI 15-0144 issued 07/19/1995)  [Administrative modification clarifies Best Available Technology (BAT) Determination for work practice requirements in standard language. BAT allowable particulate mass emissions and control efficiency are unchanged.]	Particulate emissions of fugitive dust shall not exceed 6.28 tons/yr.  Minimum control efficiency of 80% shall be achieved by sweeping and flushing.  See b)(2)a. and b)(2)h.  The requirements established pursuant to this rule are equivalent to the requirements of OAC rules 3745-17-07(B)(8)(a) and 3745-17-08(B).
b.	OAC rule 3745-17-07(B)(8)(a)	Visible particulate emissions from any paved or unpaved roadway or parking area shall not exceed 10% opacity as determined in accordance with paragraph (B)(3) of OAC rule 3745-17-03. See b)(2)a.
c.	OAC 3745-17-08(B)	Reasonably available control measures (RACM) shall be employed that are sufficient to minimize or eliminate visible emissions of fugitive dust. See b)(2)a. through b)(2)h.

- (2) Additional Terms and Conditions
  - a. The roadways and parking areas that are covered by this permit and subject to the requirements of OAC rules 3745-17-07 and 3745-17-08 are listed below:



Identification	Surface	Composition	Approx. Area (sq. ft.)
Parking Areas 1	Unpaved	Gravel	403,500
Parking Areas 2	Paved	Asphalt	23,500
Plantwide Road 1	Paved	Asphalt	421,950
Plantwide Road 2	Paved	Chip and Seal	576,585

- b. The permittee shall employ reasonably available control measures on all paved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the paved roadways and parking areas by vacuum sweeping and/or broom sweeping and/or flushing with water at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- c. The permittee shall employ reasonably available control measures on all unpaved parking areas and the unpaved shoulders of all paved roadways for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat these unpaved areas with water and/or any other suitable dust suppression chemicals at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- d. The needed frequencies of implementation of the control measures shall be determined by the permittee's inspections pursuant to the monitoring section of this permit. Implementation of the control measures shall not be necessary for a paved or unpaved roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use.
- e. Any unpaved roadway or parking area, which during the term of this permit is paved, shall be subject to the visible emission limitation and control measures for paved roadways and parking areas.
- f. The permittee shall promptly remove, in such a manner as to minimize or prevent resuspension, earth and/or other material from paved streets onto which such material has been deposited by trucking or earth moving equipment or erosion by water or other means.
- g. Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered at all times if the control measure is necessary and feasible for the materials being transported.

h. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rules 3745-31-05(A)(3) and 3745-17-08(B).

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform inspections of each of the roadway segments and parking areas in accordance with the following frequencies:

<b>Identification</b>	<b>Minimum inspection frequency</b>
Parking Areas 1	Weekly
Parking Areas 2	Weekly
Plantwide Road 1	Weekly
Plantwide Road 2	Weekly

(2) The purpose of the inspections is to determine the need for implementing the above-mentioned control measures. The inspections shall be performed during representative, normal traffic conditions. No inspection shall be necessary for a roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above-identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.

(3) The permittee shall maintain records of the following information:

- a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
- b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
- c. the dates and types of control measures implemented; and
- d. on a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

The information required in d)(3)d. shall be kept separately for (i) the paved roadways and parking areas and (ii) the unpaved roadways and parking areas, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following, at a minimum:
  - a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and
  - b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.
- (2) All reports shall be submitted in accordance with the reporting requirements of Part A: Standard Terms and Conditions of this permit. Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

f) Testing Requirements

- (1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:
  - a. Emission Limitation:

Particulate emissions of fugitive dust shall not exceed 6.28 tons/yr.

Applicable Compliance Method:

The tons/yr limitation shall be demonstrated by calculation in accordance with the procedures and use of Emissions Factors given in AP-42, "Compilation of Air Pollutant Emission Factors" 5<sup>th</sup> Edition, Section 13.2.1, (Jan. 2011), for Paved Roads, and Section 13.2.2, (Nov. 2006), for Unpaved Roads.
  - b. Emission Limitation:

Visible particulate emissions from any paved roadway or parking area shall not exceed 10% opacity as determined in accordance with paragraph (B)(3) of OAC rule 3745-17-03.

Applicable Compliance Method:

If required, compliance with the visible particulate emissions limitation listed above shall be determined in accordance with U.S. EPA Method 9 and the modifications listed in paragraph (B)(3)(d) of OAC rule 3745-17-03.

g) Miscellaneous Requirements

- (1) None.

**2. P111, Stool Plate Turnover Device**

**Operations, Property and/or Equipment Description:**

Stool Plate Rebuild, with a maximum of 30 tons per hour of refractory rubble handled, exhausting to a baghouse (P111BH-1)

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
  - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)  (Supersedes PTI 15-0144 issued 07/19/1995)  [Administrative modification to Best Available Technology (BAT) Determination to clarify that all particulate emissions are assumed to be PM <sub>10</sub> ]	Stack emissions of particulate less than 10 microns in diameter (PM <sub>10</sub> ) shall not exceed 0.01 grain per dry standard cubic foot (gr/dscf) of exhaust gases and 13.05 tons/yr. See b)(2)a., b)(2)b. and c)(1).
b.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack serving this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
c.	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust from this emissions unit shall not exceed 20% opacity as a 3-minute average.
d.	OAC rule 3745-17-08(B)(3)	See b)(2)c. and b)(2)d.
e.	OAC rule 3745-17-11(B)(1)	The 40.04 lb/hr particulate emissions limitation established pursuant to this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3). See f)(1)d.

(2) Additional Terms and Conditions

- a. All particulate emissions from the baghouse are assumed to be less than 10 microns in diameter and are designated as PM<sub>10</sub>.
- b. The Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3) shall be demonstrated by the use of a baghouse.
- c. The permittee shall employ Reasonably Available Control Measures (RACM) to prevent fugitive dust from becoming airborne. These measures shall include, but not be limited to, the following, which are sufficient to minimize or eliminate visible emissions of fugitive dust:
  - i. The installation and use of hoods, fans, and/or other equipment to adequately enclose, contain, capture, vent, and control fugitive dust from the emissions unit, meeting the following requirements:
    - (a) the collection efficiency shall be sufficient to minimize or eliminate visible emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design; and
    - (b) the control equipment for this emissions unit shall achieve an outlet emissions rate of not greater than 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases or there shall be no visible particulate emissions (whichever is less stringent) from the exhaust stack of this emissions unit.
- d. The emission limitation of 0.030 gr/dscf pursuant to OAC rule 3745-17-08(B)(3) is less stringent than the 0.01 gr/dscf emission limitation required pursuant to OAC rule 3745-31-05(A)(3).

c) Operational Restrictions

- (1) The emissions from this emissions unit shall be vented to the baghouse at all times the emissions unit is in operation.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) 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 location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

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

If visible emissions are present, a visible emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item (d) above or continue the check until the incident has ended. The observer may indicate that the visible emissions 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.

- (2) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range established for the pressure drop across the baghouse is between 0.5 to 6.0 inches of water.
- (3) 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 unit is in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee subject to prior approval of the Canton City Health Department, Air Pollution Control Division.

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

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

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

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

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

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the 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 a minor permit modification.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following, at a minimum:
  - a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;
  - b. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the baghouse;
  - c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;
  - d. each incident of deviation described in "a" where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
  - e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

Note: A departure from the acceptable baghouse pressure drop specified in section d)(1) shall be considered an excursion, not a deviation, if the permittee has taken corrective



actions to restore operation of the emissions unit(s) and/or control equipment to its normal operation, and shall be reported as an excursion

- (2) The permittee shall submit semiannual written reports that identify, at a minimum:
  - a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit;
  - b. all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and
  - c. any corrective actions taken to minimize or eliminate the visible particulate emissions from the stack and/or visible emissions of fugitive dust.
- (3) All reports shall be submitted in accordance with the reporting requirements of Part A: Standard Terms and Conditions of this permit. Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

f) Testing Requirements

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

- a. Emission Limitation:

Stack emissions of particulate less than 10 microns in diameter (PM<sub>10</sub>) shall not exceed 0.01 grain per dry standard cubic foot (gr/dscf) of exhaust gases and 13.05 tons/yr.

Applicable Compliance Method:

The gr/dscf emissions limitation was established based on the baghouse manufacturer's design specifications originally used in Permit-To-Install (PTI) 15-0144 issued 12/21/1981.

The ton/yr limitation was developed by multiplying the baghouse outlet grain loading of 0.01 gr/dscf by the maximum volumetric exhaust gas flow of 34,760 dscfm, and applying the appropriate conversion factors as follows:

$$0.01 \text{ gr/dscf} \times 34,760 \text{ dscf/min} \times 1 \text{ lb/7000gr} \times 60 \text{ min/hr} \times 8760 \text{ hr/yr} \times 1 \text{ ton/2000 lb} = 13.05 \text{ lb PM}_{10}/\text{yr}$$

Therefore, if compliance is shown with the outlet grain loading allowable emissions limitation, compliance shall also be shown with the annual emissions limitation.



Compliance with the outlet grain loading emissions limitation shall be determined through the emission testing performed per the requirements specified in section f)(2).

b. Emission Limitation:

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

Applicable Compliance Method:

If required, compliance with the stack visible particulate emissions limitation shall be determined through visible emissions observations performed in accordance with U.S. EPA Method 9.

c. Emission Limitation:

Visible emissions of fugitive dust from this emissions unit shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

If required, compliance with the limitation for visible emissions of fugitive dust shall be determined through visible emissions observations performed in accordance U.S. EPA Method 9 and the procedures specified in OAC rule 3745-17-03(B)(3).

d. Emission Limitation:

40.04 lb/hr particulate emissions

Applicable Compliance Method:

The allowable rate of particulate emissions E is calculated from the formula given in Table I in the Appendix of OAC rule 3745-17-11 using a process weight rate P of 30 tph refractory rubble handled as follows:

$$E = 4.10 (P)^{0.67} = 40.04 \text{ lb/hr}$$

The 40.04 lb/hr particulate emissions rate converts to 0.134 gr/dscf by dividing the mass flow rate by the maximum volumetric exhaust gas flow rate of 34,760 dscfm and applying the appropriate conversion factors as follows:

$$\frac{40.04 \text{ lb/hr}}{34,760 \text{ dscf/min}} \times 7000 \text{ gr/lb} \times 1 \text{ hr/60 min} = 0.134 \text{ gr/dscf}$$

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

a. The emission testing shall be conducted within the time schedule specified in the facility's Title V permit.

- b. The emission testing shall be conducted to demonstrate compliance with the allowable concentration of PM<sub>10</sub> in the exhaust stream.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):
  - i. PM<sub>10</sub>: Method 201 or 201A of 40 CFR Part 51, Appendix M
  - ii. Visible emissions (stack): Method 9 of 40 CFR Part 60, Appendix A
  - iii. Visible emissions (fugitive): Method 9 of 40 CFR Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(3).

Alternative U.S. EPA approved test methods may be used with prior approval from the Canton City Health Department, Air Pollution Control Division.

- d. During the emissions testing, the emissions unit shall be operated under operational conditions approved in advance by the appropriate Ohio EPA District Office or local air agency. Operational conditions that may need to be approved include, but are not limited to, the production rate, the type of material processed, material make-up (solvent content, etc.), or control equipment operational limitations (burner temperature, precipitator voltage, etc.). In general, testing shall be done under "worst case" conditions expected during the life of the permit. As part of the information provided in the "Intent to Test" notification form described below, the permittee shall provide a description of the emissions unit operational conditions they will meet during the emissions testing and describe why they believe "worst case" operating conditions will be met. Prior to conducting the test(s), the permittee shall confirm with the appropriate Ohio EPA District Office or local air agency that the proposed operating conditions constitute "worst case". Failure to test under the approved conditions may result in Ohio EPA not accepting the test results as a demonstration of compliance.
- e. Monitoring and recording of the operating parameters of the baghouse specified in term d)(2) above shall be conducted at 15 minute intervals during the duration of the test(s). Hourly averages of the readings shall be used to establish and/or re-verify the parameter ranges or minimum limits specified in that term.
- f. The weight of refractory and stool plates processed for rebuilding during each test run shall be recorded.
- g. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Canton City Health Department, Air Pollution Control Division. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Canton City Health Department, Air Pollution Control Division's refusal to accept the results of the emission test(s).



- h. Personnel from the Canton City Health Department, Air Pollution Control Division shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
  - i. A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Canton City Health Department, Air Pollution Control Division, within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Canton City Health Department, Air Pollution Control Division.
- g) Miscellaneous Requirements
  - (1) None.

**3. P131, Natural gas-fired continuous caster**

**Operations, Property and/or Equipment Description:**

30 mmBtu/hr natural gas-fired, 3-strand Continuous Caster having a maximum operating rate of 170 tons of steel per hour and equipped with low NOx burners. The caster is arranged with East and West tundishes, each tundish having 3 outlets to feed the molten steel to the 3 caster strand molds. The East and West tundishes, which can only be operated one-at-a-time, are each equipped with a 11.42 mmBtu/hr local tundish preheater. The caster also includes: one 11.42 mmBtu/hr tundish preheater and one 9.14 mmBtu/hr tundish dryer, both in the tundish prep area; two 1.14 mmBtu/hr SEN heaters; one 3-torch vertical cutting machine; two 2-torch horizontal cutting machines; 4 general purpose torches located at the tundish preparation, mold preparation, and casting platform; and 10 emergency cutter torches.

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (1) b)(1)c.
- b) Applicable Emissions Limitations and/or Control Requirements
  - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) June 30, 2008  [Best Available Technology (BAT) Determinations for NAAQS Pollutants > 10TPY]  (Administrative modification to add CO emissions as subject to > 10 TPY BAT regulations due to the correction of the BTU rating of P131 from 20 mmBtu/hr established in PTI P0119479 to 30 mmBtu/hr, which caused exceedance of the < 10 TPY BAT exemption threshold for CO.)	The emissions limitations for carbon monoxide (CO) specified by this rule are equivalent to the emissions limitations established pursuant to OAC rule 3745-31-10 through 3745-31-20.  See b)(2)a. and b)(2)d.
b.	OAC rule 3745-31-05(A)(3) June 30, 2008  [Best Available Technology (BAT) Determinations for NAAQS	Nitrogen oxide (NOx) emissions shall not exceed 0.668 tons/month averaged over a 12-month rolling period.  See b)(2)b., and b)(2)e.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	Pollutants < 10 TPY]  (Administrative modification to increase NOx emissions due to the correction of the BTU rating of P131 from 20 mmBtu/hr established in PTI P0119479 to 30 mmBtu/hr.)	
c.	OAC rule 3745-31-05(A)(3)(a)(ii) June 30, 2008  [BAT Exemption for NAAQS Pollutants < 10 TPY]	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the NOx emissions from this air contaminant source since the uncontrolled potential to emit is less than 10 tons/year.  See b)(2)c.
d.	OAC rule 3745-31-10 through OAC rule 3745-31-20  Best Available Control Technology (BACT) Determinations  (Administrative modification to increase CO emissions corresponding to the correction of the BTU rating of P131 from 20 mmBtu/hr established in PTI P0119479 to 30 mmBtu/hr.)	CO emissions shall not exceed 2.5 lb/hr and 11.0 tons/year. See b)(2)d.
d.	OAC 3745-17-11	Exempt. See b)(2)f. and c)(1)
e.	OAC 3745-17-10	Exempt. See b)(2)g.
f.	OAC rule 3745-17-07(A)(1)	Exempt. See b)(2)h.
g.	OAC rule 3745-18-06(E) OAC rule 3745-18-82(A)	Exempt. See b)(2)i. and c)(1)

(2) Additional Terms and Conditions

- a. The Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3) shall be demonstrated by the use of natural gas firing only in emissions unit P131.
- b. This Best Available Technology (BAT) emissions limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

- c. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.
- d. The permittee shall employ "Best Available Control Technology" (BACT) for controlling emissions of CO. BACT for CO emissions from this unit has been determined to be the following:
  - i. Good combustion practices and acceptance of a CO emissions limitation of 84 lb/mmscf of natural gas burned.
  - ii. Compliance with the emissions limits listed in b)(1)d above and with the operational restriction in c)(2).
- e. The uncontrolled potential emissions of sulfur dioxide (SO<sub>2</sub>), volatile organic compounds (VOC), and particulate emissions less than 10 microns in diameter (PM<sub>10</sub>) when firing natural gas in this emissions unit are negligible (less than 10 pounds per day), and therefore emissions limits for these pollutants have not been established.
- f. The burning of natural gas in P131 is the only source of particulate emissions from this emissions unit. The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply pursuant to OAC rule 3745-17-11(A)(4) because the process weight that causes any emissions of particulate matter is equal to zero.
- g. This emissions unit is designed such that the products of combustion come into direct contact with materials being processed and therefore do not meet the definition of "fuel burning equipment" given in OAC rules 3745-17-01(B)(5) and 3745-18-01(B)(4). They are, therefore, exempt from emission limitations and control requirements contained in OAC rule 3745-17-10 for fuel burning equipment and subject to the requirements in OAC rule 3745-18-06 as process equipment.
- h. This emissions unit is exempt from the visible particulate emissions limitations specified in OAC rule 3745-17-07(A)(1), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC 3745-17-11 is not applicable.
- i. The burning of natural gas in P131 is the only source of sulfur dioxide from this emissions unit. Pursuant to OAC rule 3745-18-06(C), this emissions unit is exempt from OAC rules 3745-18-06(E) and 3745-18-82 because the process weight input (excludes gaseous fuels) that causes any emissions of sulfur dioxide is equal to zero, which is less than 1,000 lbs/hour.

c) Operational Restrictions

- (1) The permittee shall burn only natural gas in emissions unit P131.
- (2) The maximum natural gas consumption in emissions unit P131 shall not exceed 490 scfm, calculated as a daily average.

d) Monitoring and/or Recordkeeping Requirements

- (1) For each day during which the permittee burns a fuel other than natural gas in P131, the permittee shall maintain a record of the type and quantity of fuel burned in the emissions unit.
- (2) Records shall be maintained of the daily amount of natural gas burned in P131 and the number of hours P131 was operated each day.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify, at a minimum, each day when a fuel other than natural gas was burned in P131 or the natural gas consumption exceeded 490 scfm.
- (2) All reports shall be submitted in accordance with the reporting requirements of Part A: Standard Terms and Conditions of this permit. Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

f) Testing Requirements

- (1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following method(s):

a. Emission Limitation:

NOx emissions shall not exceed 0.668 tons/month averaged over a 12-month rolling period.

Applicable Compliance Method:

An emissions rate of 0.061 lb NOx/mmBtu was calculated by dividing the NOx emissions factor of 50 lb NOx/10<sup>6</sup> scf for natural gas combustion from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.4, Table 1.4-1 (07/98) by the natural gas heating value of 1,020 Btu/scf and multiplying the result by 1.25 to provide a 25% margin.

The annual NOx emissions rate of 8.01 tons/yr was calculated by multiplying the lb/mmBtu NOx emissions by the maximum rated heat input of 30 mmBtu/hr times the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 pounds per ton. The tons-per-month emission limitation is established by dividing the annual NOx emissions in tons/yr by 12 months/yr. Therefore,



compliance with the lb/mmBtu NOx emissions limitation demonstrates compliance with the 12-month rolling period emissions limitation.

If required, the permittee shall demonstrate compliance with the hourly emissions limitation through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 - 4 and 7 or 7E. Alternative U.S. EPA approved test methods may be used with prior approval from the Canton City Health Department, Air Pollution Control Division.

b. Emission Limitation:

CO emissions shall not exceed 2.5 lbs/hour and 11.0 tons/yr

Applicable Compliance Method:

An emissions rate of 0.082 lb CO/mmBtu was calculated by dividing the CO emissions factor of 84 lb CO/10<sup>6</sup> scf for natural gas combustion from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.4, Table 1.4-1 (07/98) by the natural gas heating value of 1,020 Btu/scf.

The hourly emissions limitation was calculated by multiplying the 0.082 lb CO/mmBtu emissions rate by the maximum rated heat input of 30 mmBtu/hr.

The annual emissions limitation of 11.0 tons/yr was calculated by multiplying the hourly emissions limitation by the maximum annual hours of operation (8,760 hours) and then dividing by 2,000 pounds per ton. Therefore, compliance with the hourly emissions limitation demonstrates compliance with the annual emissions limitation.

If required, the permittee shall demonstrate compliance with the hourly emissions limitation through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 - 4 and 10. Alternative U.S. EPA approved test methods may be used with prior approval from the Canton City Health Department, Air Pollution Control Division.

c. Operational Restriction:

The maximum natural gas consumption in emissions unit P131 shall not exceed 490 scfm.

Applicable Compliance Method:

The 490 scfm natural gas consumption rate was calculated by dividing the maximum heat input to the caster of 30 mmBtu/hr by the heating value of the natural gas (1020 Btu/scf) and dividing by 60 min/hr.

Compliance with the 490 scfm natural gas consumption rate shall be demonstrated by measuring and recording the scf of natural gas used by emission unit P131 per day and dividing that quantity by the number of hours/day operated, and converting to scfm by dividing by 60 min/hr. This produces a daily average value.



**Final Permit-to-Install**  
TimkenSteel Corporation - Faircrest Steel Plant  
**Permit Number:** P0119986  
**Facility ID:** 1576222001  
**Effective Date:**5/31/2016

- g) Miscellaneous Requirements
  - (1) None.

**4. Emissions Unit Group -Particulate Units: P107,P109,P112,P116,**

<b>EU ID</b>	<b>Operations, Property and/or Equipment Description</b>
P107	Billet Grinders No.1 and No.2 exhausting to a baghouse (P107BH-1), with maximum combined capacity during simultaneous operation of 117 tons steel processed per hour
P109	Shot Blaster exhausting to a cyclone separator to recover the spent shot and then to a baghouse (P109BH-1) for particulate control. Maximum operating rate of 117 tons steel processed per hour
P112	Truck Dump Station handling a maximum of 14.13 tons per hour of material, exhausting to a baghouse (P112BH-1)
P116	Melt Shop Additive Storage Bins handling a maximum of 2.0 tons per hour of material, exhausting to a two-compartment baghouse with a single stack

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
- (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
- (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)  (Supersedes PTI 15-0144 issued 07/19/1995)  [Administrative modification to Best Available Technology (BAT) Determination to clarify that all particulate emissions are assumed to be PM <sub>10</sub> .]	Stack emissions of particulate less than 10 microns in diameter (PM <sub>10</sub> ) shall not exceed 0.01 grain per dry standard cubic foot (gr/dscf) of exhaust gases and: 18.92 tons/yr. for P107; 2.65 tons/yr for P109; 13.24 tons/yr for P112; and 23.52 tons/yr for P116. See b)(2)a., b)(2)b. and c)(1).
b.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the stack serving this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
c.	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust from this emissions unit shall not exceed 20% opacity as a 3-minute average.
d.	OAC rule 3745-17-08(B)(3)	See b)(2)c. and b)(2)d.
e.	OAC rule 3745-17-11(B)(1)	The lb/hr particulate emissions limitations listed below as established pursuant to



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		this rule are less stringent than the limitations established pursuant to OAC rule 3745-31-05(A)(3): 52.9 lb/hr for P107 and P109 each; 83.14 lb/hr for P112; and 22.43 lbs/hr for P116. See f)(1)d.

(2) Additional Terms and Conditions

- a. All particulate emissions from the baghouse are assumed to be less than 10 microns in diameter and are designated as PM<sub>10</sub>.
- b. The Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3) shall be demonstrated by the use of a baghouse.
- c. The permittee shall employ Reasonably Available Control Measures (RACM) to prevent fugitive dust from becoming airborne. These measures shall include, but not be limited to, the following, which are sufficient to minimize or eliminate visible emissions of fugitive dust:
  - i. The installation and use of hoods, fans, and/or other equipment to adequately enclose, contain, capture, vent, and control fugitive dust from these emissions units shall meet the following requirements:
    - (a) the collection efficiency shall be sufficient to minimize or eliminate visible emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design; and
    - (b) the control equipment for these emissions units shall achieve an outlet emissions rate of not greater than 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases or there shall be no visible particulate emissions (whichever is less stringent) from the exhaust stack of these emissions units.
  - d. The emission limitation of 0.030 gr/dscf pursuant to OAC rule 3745-17-08(B)(3) is less stringent than the 0.01 gr/dscf emission limitation required pursuant to OAC rule 3745-31-05(A)(3).

c) Operational Restrictions

- (1) The emissions from these emissions units shall be vented to their baghouse at all times the emissions units are in operation.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform weekly checks, when the emissions units are in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving the emissions units. 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 location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emissions incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item (d) above or continue the check until the incident has ended. The observer may indicate that the visible emissions 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.

- (2) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable ranges established for the pressure drops across each of the baghouses associated with the emissions units are as follows:
  - a. for P107: between 0.5 to 6.0 inches of water,
  - b. for P109: between 0.5 to 6.0 inches of water,
  - c. for P112: between 0.5 to 9.0 inches of water, and
  - d. for P116: between 0.5 to 9.0 inches of water.
- (3) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across each 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 a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee subject to prior approval of the Canton City Health Department, Air Pollution Control Division.

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

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

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

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

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

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Canton City Health Department, Air Pollution Control Division. 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 a minor permit modification.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following, at a minimum:
  - a. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the acceptable range;
  - b. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the baghouse;
  - c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;
  - d. each incident of deviation described in "a" where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
  - e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

Note: A departure from the acceptable baghouse pressure drop specified in section d)(1) shall be considered an excursion, not a deviation, if the permittee has taken corrective actions to restore operation of the emissions unit(s) and/or control equipment to its normal operation, and shall be reported as an excursion.

- (2) The permittee shall submit semiannual written reports that identify, at a minimum:
  - a. all days during which any visible particulate emissions were observed from the stacks serving the emissions units;
  - b. all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving the emissions units; and
  - c. any corrective actions taken to minimize or eliminate the visible particulate emissions from the stacks and/or visible emissions of fugitive dust.
- (3) All reports shall be submitted in accordance with the reporting requirements of Part A: Standard Terms and Conditions of this permit. Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

f) Testing Requirements

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



a. Emission Limitation:

Stack emissions of particulate less than 10 microns in diameter (PM<sub>10</sub>) shall not exceed 0.01 grain per dry standard cubic foot (gr/dscf) of exhaust gases and:

- i. 18.92 tons/yr for P107;
- ii. 2.65 tons/yr for P109;
- iii. 13.24 tons/yr for P112; and
- iv. 23.52 tons/yr for P116.

Applicable Compliance Method:

The gr/dscf emissions limitation was established based on the baghouse manufacturer's design specifications originally used in Permit-To-Install (PTI) 15-0144 issued 12/21/1981.

The ton/yr limitation was developed by multiplying the baghouse outlet grain loading of 0.01 gr/dscf by the maximum volumetric exhaust gas flow of the associated baghouse (in dscfm), and applying the appropriate conversion factors as follows:

For P107:

$$0.01 \text{ gr/dscf} \times 50,400 \text{ dscf/min} \times 1 \text{ lb/7000gr} \times 60 \text{ min/hr} \times 8760 \text{ hr/yr} \times 1 \text{ ton/2000 lb} = 18.92 \text{ tons PM}_{10}/\text{yr}$$

For P109:

$$0.01 \text{ gr/dscf} \times 7060 \text{ dscf/min} \times 1 \text{ lb/7000gr} \times 60 \text{ min/hr} \times 8760 \text{ hr/yr} \times 1 \text{ ton/2000 lb} = 2.65 \text{ tons PM}_{10}/\text{yr}$$

For P112:

$$0.01 \text{ gr/dscf} \times 35,270 \text{ dscf/min} \times 1 \text{ lb/7000gr} \times 60 \text{ min/hr} \times 8760 \text{ hr/yr} \times 1 \text{ ton/2000 lb} = 13.24 \text{ tons PM}_{10}/\text{yr}$$

For P116:

$$0.01 \text{ gr/dscf} \times 62,650 \text{ dscf/min} \times 1 \text{ lb/7000gr} \times 60 \text{ min/hr} \times 8760 \text{ hr/yr} \times 1 \text{ ton/2000 lb} = 23.52 \text{ tons PM}_{10}/\text{yr}$$

Therefore, if compliance is shown with the outlet grain loading allowable emissions limitation, compliance shall also be shown with the annual emissions limitation.

If required, compliance with the outlet grain loading limitation shall be determined through emissions testing performed in accordance with Method 201 or 201A of 40 CFR Part 51, Appendix M. Alternative US EPA approved test methods may be used with prior approval from the Canton City Health Department, Air Pollution Control Division.



b. Emission Limitation:

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

Applicable Compliance Method:

If required, compliance with the stack visible particulate emissions limitation shall be determined through visible emissions observations performed in accordance with U.S. EPA Method 9.

c. Emission Limitation:

Visible emissions of fugitive dust from this emissions unit shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:

If required, compliance with the limitation for visible emissions of fugitive dust shall be determined through visible emissions observations performed in accordance with U.S. EPA Method 9 and the procedures specified in OAC rule 3745-17-03(B)(3).

d. Emission Limitation:

For P107 and P109 each: 52.9 lbs/hr particulate emissions

For P112: 83.14 lbs/hr particulate emissions

For P116: 22.43 lbs/hr particulate emissions

Applicable Compliance Method:

For P107 and P109:

The allowable rate of particulate emissions E is calculated from the formula given in Table I in the Appendix of OAC rule 3745-17-11 using a process weight rate P of 117 tph steel as follows:

$$E = 55.0 (P)^{0.11} - 40.0 = 55.0 (117)^{0.11} - 40.0 = 52.9 \text{ lb/hr}$$

For P107:

The 52.9 lb/hr particulate emissions rate converts to 0.122 gr/dscf by dividing the mass flow rate by the maximum volumetric exhaust gas flow rate of 50,400 dscfm and applying the appropriate conversion factors as follows:

$$\frac{52.9 \text{ lb/hr}}{50,400 \text{ dscf/min}} \times 7000 \text{ gr/lb} \times 1 \text{ hr/60 min} = 0.122 \text{ gr/dscf}$$

For P109:



The 52.9 lb/hr particulate emissions rate converts to 0.874 gr/dscf by dividing the mass flow rate by the maximum volumetric exhaust gas flow rate of 7060 dscfm and applying the appropriate conversion factors as follows:

$$\frac{52.9 \text{ lb/hr}}{7060 \text{ dscf/min}} \times 7000 \text{ gr/lb} \times 1 \text{ hr/60 min} = 0.874 \text{ gr/dscf}$$

For P112:

The allowable rate of particulate emissions E is calculated from the formula given in Table I in the Appendix of OAC rule 3745-17-11 using a process weight rate P of 14.13 tph of material:

$$E = 14.10 (P)^{0.67} = 55.0 (14.13)^{0.11} - 40.0 = 83.14 \text{ lb/hr}$$

The 83.14 lb/hr particulate emissions rate converts to 0.275 gr/dscf by dividing the mass flow rate by the maximum volumetric exhaust gas flow rate of 35,270 dscfm and applying the appropriate conversion factors as follows:

$$\frac{83.14 \text{ lb/hr}}{35,270 \text{ dscf/min}} \times 7000 \text{ gr/lb} \times 1 \text{ hr/60 min} = 0.275 \text{ gr/dscf}$$

For P116:

The allowable rate of particulate emissions E is calculated from the formula given in Table I in the Appendix of OAC rule 3745-17-11 using a process weight rate P of 2.0 tph of material:

$$E = 14.10 (P)^{0.67} = 55.0 (2.0)^{0.11} - 40.0 = 22.43 \text{ lb/hr}$$

The 22.43 lb/hr particulate emissions rate converts to 0.042 gr/dscf by dividing the mass flow rate by the maximum volumetric exhaust gas flow rate of 62,650 dscfm and applying the appropriate conversion factors as follows:

$$\frac{22.43 \text{ lb/hr}}{62,650 \text{ dscf/min}} \times 7000 \text{ gr/lb} \times 1 \text{ hr/60 min} = 0.042 \text{ gr/dscf}$$

g) Miscellaneous Requirements

- (1) None.