



State of Ohio Environmental Protection Agency

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January 27, 1999

STARK COUNTY

Republic Engineered Steels Inc Canton Ho
Eric D Howland
Po Box 24700
Canton OH, 44701

CERTIFIED MAIL

Permit Type Summary

	TOXIC REVIEW
	PSD
X	SYNTHETIC MINOR
	CEMS
	MACT
	NSPS
	NESHAPS
X	NETTING
	MAJOR NON-ATTAINMENT
	MODELING SUBMITTED

RE: Permit To Install Number 15-1340

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

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

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

Environmental Review Appeals Commission
236 East Town Street, Room 300
Columbus, Ohio 43215

Very truly yours,

Thomas G. Rigo, Manager
Field Operations and Permit Section
Division of Air Pollution Control



Enclosure

cc: USEPA

CANTON CITY HEALTH DEPARTMENT

Permit To Install Terms and Conditions

Application Number: 15-1340

Facility ID: 1576050694

Permit Fee: \$8800.00

Name of Applicant: Republic Engineered Steels Inc Canton Ho

Address: Po Box 24700

City: Canton, OH 44701

Location of proposed source(s): 2633 EIGHTH STREET NE
CANTON, OHIO

Description of proposed source(s):

BAR MILL, VERTICAL CASTER, SHOT BLASTER, HOT SAWS AND MODIFICATION TO
THE CAST ROLL (TM) COMPLEX TO PRODUCE LEADED STEELS.

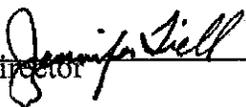
Date of Issuance: 01/27/99

Effective Date: 01/27/99

The above named entity is hereby granted a permit to install for the above described source(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 source(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 source(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency


Director

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Facility Name: **Republic Eng Steels, Inc Canton Hot Roll**

Application Number: **15-1340**

Date: **January 27, 1999**

GENERAL PERMIT CONDITIONS

TERMINATION OF PERMIT TO INSTALL

Substantial construction for installation must take place within 18 months of the effective date of this permit. 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.

NOTICE OF INSPECTION

The Director of the Ohio Environmental Protection Agency, or his authorized representatives, may enter upon the premises of the above-named applicant during construction and operation at any reasonable time for the purpose of making inspections, conducting tests, or to examine records or reports pertaining to the construction, modification or installation of the source(s) of environmental pollutants identified within this permit.

CONSTRUCTION OF NEW SOURCES

The proposed source(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources are inadequate or cannot meet applicable standards.

If the construction of the proposed source(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of Ohio Administrative Code (OAC) Rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations.

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Facility Name: **Republic Eng Steels, Inc Canton Hot Roll**

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Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet applicable standards.

PERMIT TO INSTALL FEE

In accordance with Ohio Revised Code 3745.11, the specified Permit to Install fee must be remitted within 30 days of the effective date of this permit to install.

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.

APPLICABILITY

This Permit to Install is applicable only to the contaminant sources identified. Separate application must be made to the Director for the installation or modification of any other contaminant sources.

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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.

PERMIT TO OPERATE APPLICATION

A Permit to Operate application must be submitted to the appropriate field office for each air contaminant source in this Permit to Install. In accordance with OAC Rule 3745-35-02, the application shall be filed no later than thirty days after commencement of operation.

SOURCE OPERATION AFTER COMPLETION OF CONSTRUCTION

This facility is permitted to operate each source described by this permit to install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws and regulations.

Facility Name: **Republic Eng Steels, Inc Canton Hot Roll**Application Number: **15-1340**Date: **January 27, 1999**AIR EMISSION SUMMARY

The air contaminant emissions units listed below comprise the Permit to Install for **Republic Eng Steels, Inc Canton Hot Roll** located in **Stark** County. The emissions units listed below shall not exceed the emission limits/control requirements contained in the table. This condition in no way limits the applicability of any other state or federal regulations. Additionally, this condition does not limit the applicability of additional special terms and conditions of this permit.

Ohio EPA Source <u>Number</u>	Source Identification <u>Description</u>	BAT <u>Determination</u>	Applicable Federal & <u>OAC Rules</u>	Permit Allowable Mass Emissions and/or Control/Usage <u>Requirements</u>
P139	300 KW 402 HP 2.8 MMBtu/hr Natural Gas- Fired Reciprocating Internal Combustion Engine Used as an Emergency Electrical Generator (Bar Mill)	Compliance with the terms of this permit	3745-17-07 (A) 3745-17-11 (B) (5) (a) 3745-31-05	BAT is more restrictive BAT is more restrictive Visible particulate emissions shall not exceed 5 percent opacity as a 6-minute average Limit of hours of operation not to exceed: 500 hours/year nitrogen oxides: 7.99 pounds/hour; 1.99 tons/year carbon monoxide: 1.12 pounds/hour; 0.28 ton/year VOCs: 0.33 pound/hour; 0.08 ton/year

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
P139 Cont'd				PM/PM ₁₀ : 0.028 pound/hour; 0.007 ton/year sulfur dioxide: 0.0017 pound/hour; 0.0004 ton/year
P140	300 KW 402 HP 2.8 MMBtu/hr Natural Gas- Fired Reciprocating Internal Combustion Engine Used as an Emergency Electrical Generator (Vertical Caster)	Compliance with the terms of this permit	3745-17-07 3745-17-11 (B) (5) (a) 3745-31-05	BAT is more restrictive BAT is more restrictive Visible particulate emissions shall not exceed 5 percent opacity as a 6-minute average Limit of hours of operation not to exceed: 500 hours/yr nitrogen oxides: 7.99 pounds/hour; 1.99 tons/year carbon monoxide: 1.12 pounds/hour; 0.28 ton/year VOCs: 0.33 pound/hour; 0.08 ton/year

Facility Name: Republic Eng Steels, Inc Canton Hot Roll

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
P140 Cont'd				PM/PM ₁₀ : 0.028 pound/hour; 0.007 ton/year sulfur dioxide: 0.0017 pound/hour; 0.0004 ton/year
P131	186.1 MMBtu/hour Natural Gas-Fired Billet and Bloom Reheat Furnace (Bar Mill Reheat Furnace)	Low NO _x Burners 0.112 pound NO _x /MMBtu and compliance with the terms of this permit	3745-17-07 3745-17-11 3745-31-05;	BAT is more restrictive BAT is more restrictive Visible particulate emissions shall not exceed 5 percent opacity as a 6-minute average nitrogen oxides: 0.112 pound/MMBtu; 20.8 pounds/hour; 91.3 tons/year carbon monoxide: 15.63 pounds/hour; 68.46 tons/year volatile organic compounds: 1.02 pounds/hour; 4.47 tons/year

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P131 Cont'd				PM/PM ₁₀ : 0.35 pound/hour; 1.53 tons/year sulfur dioxide: 0.11 pound/hour; 0.49 ton/year
P133	50 MMBtu/hr Natural Gas- Fired Bar Mill Slow Cool Station (No Stack)	Low NO _x Burners 0.112 lb NO _x /MMBtu and compliance with the terms of this permit	3745-17-07 3745-17-08 3745-31-05	BAT is more Restrictive BAT is more restrictive See I.A.3 for limits on VEs from fugitive dust nitrogen oxides: 0.112 pound/MMBtu; 5.6 pounds/hour; 24.53 tons/year carbon monoxide: 4.2 pounds/hour; 18.4 tons/year PM/PM ₁₀ : 0.1 pound/hour; 0.44 ton/year sulfur dioxide: 0.03 pound/hour; 0.13 ton/year VOC: 0.28 pound/hour; 1.23 tons/year
P142	Shot Blaster with Fabric	Fabric Filter with a limit of 0.0052	3745-17-07	BAT is more restrictive

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
P142 Cont'd	Filter No. 5 Steel Conditioning	gr/dscf and compliance with the terms of this permit	3745-17-11 3745-31-05	BAT is more restrictive Visible particulate emissions shall not exceed 5 percent opacity as a 6-minute average PM: 0.0052 Grain/DSCF; 0.76 pound/hour (Based on 17,023 DSCF/Min); 3.32 tons/year PM ₁₀ : 0.46 pound/hour; 1.99 tons/year Lead: 0.003 pound/hour; 0.013 ton/year
P132	Bar Mill Hot Scarfer with a 5 MMBtu/hr Natural Gas Fired Burner Vented to a Baghouse	Baghouse with a limit of 0.0052 grain/DSCF; Low NO _x Burner 0.10 pound NO _x /MMBTU; and Compliance with the terms of this permit	3745-17-07 3745-17-11 3745-31-05	BAT is more restrictive BAT is more restrictive Visible particulate emissions shall not exceed 5 percent opacity as a 6-minute average PM/PM ₁₀ Stack:

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
P132 Cont'd				0.0052 Grain/DSCF; 0.94 pound/hour (Based on 21,191 DSCF/Min); 4.14 tons/year PM/PM ₁₀ Fugitive: 0.08 pound/hour; 0.35 ton/year Lead Stack: 0.0007 pound/hour; 0.0031 ton/year Lead Fugitive: 0.00006 pound/hour; 0.0003 ton/year Nitrogen Oxides Stack: 0.5 pound/hour; 2.17 tons/year Nitrogen Oxides Fugitive: 0.005 pound/hour; 0.022 ton/year
P143	Cast-Roll Rolling Mill Hot Saw No. 1 with Baghouse	Baghouse with an outlet loading of no more than 0.0052 gr/DSCF and compliance with the terms of this permit	3745-17-07 3745-17-11 3745-31-05	BAT is more restrictive BAT is more restrictive Visible particulate emissions shall not exceed 5 percent opacity

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
P143 Cont'd				as a 6-minute average The following allowables are for the outlet of the baghouse serving 2 hot saws (P143 and P144): PM: 0.0052 grain/DSCF; 0.97 pound/hour (Based on 21,714 DSCF/min); 4.24 tons/year PM ₁₀ : 0.58 pound/hour; 2.54 tons/year Lead: 0.0034 pound/hour; 0.015 ton/year
P144	Cast-Roll Rolling Mill Hot Saw No. 2 with Baghouse	Baghouse with an outlet loading of no more than 0.0052 gr/DSCF and compliance with the terms of this permit	3745-17-07 3745-17-11 3745-31-05	BAT is more restrictive BAT is more restrictive Visible particulate emissions shall not exceed 5 percent opacity as a 6-minute average

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Ohio EPA Source <u>Number</u>	Source Identification <u>Number</u>	BAT <u>Determination</u>	Applicable Federal & OAC Rules	Permit Allowable Mass Emissions and/or Control/Usage <u>Requirements</u>
P144 Cont'd				<p>The following allowables are for the outlet of the baghouse serving 2 hot saws (P143 and P144):</p> <p>PM: 0.0052 grain/DSCF; 0.97 pound/hour (Based on 21,714 DSCF/min); 4.24 tons/year</p> <p>PM₁₀: 0.58 pound/hour; 2.54 tons/year</p> <p>Lead: 0.0034 pound/hour; 0.015 ton/year</p>
P134	Bar Mill Hot Saw No. 1 with Baghouse	Baghouse with an outlet loading of no more than 0.0052 gr/DSCF and compliance with the terms of this permit	3745-17-07 3745-17-11 3745-31-05	<p>BAT is more restrictive</p> <p>BAT is more restrictive</p> <p>Visible particulate emissions shall not exceed 5 percent opacity as a 6-minute average</p> <p>The following allowables are for the outlet of the baghouse</p>

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
P134 Cont'd				serving 3 hot saws P134, P135 & P136: PM: 0.0052 grain/DSCF; 1.45 pounds/hour (Based on 32,571 DSCF/min); 6.36 tons/year PM ₁₀ : 0.87 pound/hour; 3.82 tons/year Lead: 0.0051 pound/hour; 0.022 ton/year
P135	Bar Mill Hot Saw No. 2 with Baghouse	Baghouse with an outlet loading of no more than 0.0052 gr/DSCF and compliance with the terms of this permit	3745-17-07 3745-17-11 3745-31-05;	BAT is more restrictive BAT is more restrictive Visible particulate emissions shall not exceed 5 percent opacity as a 6-minute average The following allowables are for the outlet of the baghouse serving 3 hot saws P134, P135, P136:

Facility Name: **Republic Eng Steels, Inc Canton Hot Roll**

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Date: **January 27, 1999**

Ohio EPA Source <u>Number</u>	Source Identification <u>Number</u>	BAT Determination	Applicable Federal & OAC Rules	Permit Allowable Mass Emissions and/or Control/Usage <u>Requirements</u>
P135 Cont'd				PM: 0.052 grain/DSCF; 1.45 pounds/hour (Based on 10,857 DSCF/min); 6.36 tons/year PM ₁₀ : 0.87 pound/hour; 3.82 tons/year Lead: 0.0051 pound/hour; 0.022 ton/year
P136	Bar Mill Hot Saw No. 3 with Baghouse	Baghouse with an outlet loading of no more than 0.0052 gr/DSCF and compliance with the terms of this permit	3745-17-07 3745-17-11 3745-31-05	BAT is more restrictive BAT is more restrictive Visible particulate emissions shall not exceed 5 percent opacity as a 6-minute average The following allowables are for the outlet of the baghouse serving 3 hot saws P134, P135 and P136: PM: 0.0052 grain/DSCF; 1.45 pounds/hour

Facility Name: Republic Eng Steels, Inc Canton Hot Roll

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Ohio EPA Source Number	Source Identification Number	BAT Determination	Applicable Federal & OAC Rules	Permit Allowable Mass Emissions and/or Control/Usage Requirements
P136 Cont'd				(Based on 10,857 DSCF/min); 6.36 tons/year PM ₁₀ : 0.87 pound/hour; 3.82 tons/year Lead: 0.0051 pound/hour; 0.022 ton/year
P137	10 MMBTU/hr Natural Gas- Fired Tundish Preheater No. 1 Vertical Caster (No Stack)	Low NO _x Burners 0.089 lb NO _x /MMBTU and compliance with the terms of this permit	3745-17-07 3745-17-08 3745-31-05	BAT is more restrictive BAT is more restrictive See I.A.3 for VE limits PM/PM ₁₀ : 0.02 pound/hour; 0.09 ton/year Nitrogen oxides: 0.089 pound/MMBtu; 0.89 pound/hour; 3.9 tons/year Carbon monoxide: 0.84 pound/hour; 3.68 tons/year VOC: 0.055 pound/hour; 0.24 ton/year Sulfur dioxide: 0.006

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P137 Cont'd				pound/hour; 0.026 ton/year
P138	10 MMBTU/hr Natural Gas- Fired Tundish Preheater No. 2 Vertical Caster (No Stack)	Low NO _x Burners 0.089 lb NO _x /MMBTU and compliance with the terms of this permit	3745-17-07 3745-17-08 3745-31-05	BAT is more restrictive BAT is more restrictive See I.A.3 for VE limits PM/PM ₁₀ : 0.02 pound/hour; 0.09 ton/year Nitrogen oxides: 0.089 pound/MMBtu; 0.89 pound/hour; 3.9 tons/year Carbon monoxide: 0.84 pound/hour; 3.68 tons/year VOC: 0.055 pound/hour; 0.24 ton/year Sulfur dioxide: 0.006 pound/hour; 0.026 ton/year
F008	Vertical Caster Tundish Dump Station	Dumping will take place inside production building and compliance with the terms of this permit	3745-17-07 3745-17-08 3745-31-05	BAT is more restrictive BAT is more restrictive See I.A.3 for VE

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F008 Cont'd				limits PM/PM ₁₀ Fugitive: 1.94 pounds/hour; 1.22 tons/year
P141	Vertical Caster Torch Cutoff with baghouse when cutting lead steel	Baghouse 0.002 gr/DSCF when cutting lead steel and compliance with the terms of this permit	3745-17-07 3745-17-11 3745-31-05	BAT is more restrictive BAT is more restrictive Visible particulate emissions shall not exceed 5 percent opacity as a 6-minute average from the stack PM/PM ₁₀ lead steel: 0.002 grain/DSCF; 0.51 pound/hour (based on 29,565 DSCF/min) Lead lead steel: 0.026 pound/hour; 0.039 ton/year PM/PM ₁₀ nonlead steel: 0.035 pound/hour; 0.15 ton/year

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P145	Cast-Roll™ Continuous Caster Torch Cut-Off Operation with water sprays when cutting leaded steel	Water sprays when cutting leaded steel and compliance with the terms of this permit	3745-17-07	BAT is more restrictive
			3745-17-08	BAT is more restrictive
			3745-31-05	See I.A.3 for VE limits
				PM/PM ₁₀ Nonleaded steel: 0.04 pound/hour; 0.17 ton/year
				PM/PM ₁₀ Leaded steel: 0.31 pound/hour
				Lead Leaded steel: 0.018 pound/hour 0.020 ton/year
P146	Vertical Caster Lead Ladle Inoculation Station with fabric filter	Fabric filter 0.002 gr/DSCF and compliance with the terms of this permit	3745-17-07	BAT is more restrictive
			3745-17-08	BAT is more restrictive
			3745-17-11	BAT is more restrictive
			3745-31-05	See I.A.3 for VE limits
				Visible particulate emissions shall not exceed 5 percent opacity as a 6-minute average from the stack

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P146 Cont'd				PM/PM ₁₀ Stack: 0.002 gr/DSCF (based on 23,327 dscfm); 0.4 pound/hour; 0.22 ton/year PM/PM ₁₀ Fugitive: 0.47 pound/hour; 0.26 ton/year Lead Stack: 0.092 pound/hour; 0.0505 ton/year Lead Fugitive: 0.393 pound/hour; 0.2157 ton/year
P147	Vertical Caster Tundish with fabric filter	Fabric filter 0.002 gr/DSCF and compliance with the terms of this permit	3745-17-07 3745-17-08 3745-17-11 3745-31-05	BAT is more restrictive BAT is more restrictive BAT is more restrictive Visible particulate emissions shall not exceed 5 percent opacity as a 6-minute average from the stack See I.A.3 for VE limits Lead Inoculation

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P147 Cont'd				at Tundish PM/PM ₁₀ Stack: 0.002 grain/DSCF; 0.152 pound/hour (based on 8,850 DSCF/min); 0.1943 ton/year PM/PM ₁₀ Fugitive: 0.2 pound/hour; 0.256 ton/year Lead Stack: 0.007 pound/hour; 0.0089 ton/year Lead Fugitive: 0.168 pound/hour; 0.2157 ton/year Lead Inoculation at LIS or VTD PM/PM ₁₀ Stack: 0.002 grain/DSCF; 0.54 pound/hr (based on 31,450 DSCF/min); 0.69 ton/year Lead Stack: 0.025 pound/hour; 0.0315 ton/year Lead Fugitive: 0.008 pound/hour;

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P147 Cont'd				0.0096 ton/year
P148	Cast-Roll™ Continuous Caster Tundish with fabric filter	Fabric filter 0.002 gr/DSCF and compliance with the terms of this permit	3745-17-07 3745-17-08 3745-17-11 3745-31-05	BAT is more restrictive BAT is more restrictive BAT is more restrictive Visible particulate emissions shall not exceed 5 percent opacity as a 6-minute average from the stack Lead Inoculation at Tundish PM/PM ₁₀ Stack: 0.002 grain/DSCF 0.152 pound/hour (based on 8,850 DSCF/min) 0.17 ton/year PM/PM ₁₀ Fugitive: 0.2 pound/hour 0.256 ton/year Lead Stack: 0.007 pound/hour 0.0076 ton/year Lead Fugitive: 0.196 pound/hour 0.2157 ton/year

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P148 Cont'd				Lead Inoculation at LIS PM/PM ₁₀ Stack: 0.002 grain/DSCF 0.54 pound/hr (based on 31,450 DSCF/min 0.59 ton/year Lead Stack: 0.025 pound/hour; 0.0271 ton/year Lead Fugitive: 0.009 pound/hour; 0.0096 ton/year
P149	Cast-Roll™ Continuous Caster Ladle Inoculation Station with fabric filter	Fabric filter 0.002 gr/DSCF and compliance with the terms of this permit	3745-17-07 3745-17-08 3745-17-11 3745-31-05	BAT is more restrictive BAT is more restrictive BAT is more restrictive PM/PM ₁₀ Stack: 0.002 grain/DSCF, 0.4 pound/hour (based on 23,327 DSCF/min); 0.22 ton/year PM/PM ₁₀ Fugitive: 0.46 pound/hour; 0.26 ton/year Lead Stack: 0.092

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Ohio EPA Source Number	Source Identification Number	BAT Determination	Applicable Federal & OAC Rules	Permit Allowable Mass Emissions and/or Control/Usage Requirements
P149 Cont'd				pound/hour; 0.0517 ton/year Lead Fugitive: 0.383 pound/hour; 0.2157 ton/year Visible particulate emissions shall not exceed 5 percent opacity as a 6-minute average from the stack
P124 (Mod)	Vacuum Tank Degasser with condenser (Modification by adding lead inoculation)	Condenser and compliance with the terms of this permit	3745-17-07 3745-17-11 3745-31-05	BAT is more restrictive BAT is more restrictive PM/PM ₁₀ : 0.47 pound/hour; 0.68 ton/year Sulfur Dioxide: 3.3 pounds/hour; 4.69 tons/year Carbon Monoxide: 0.61 pound/hour; 0.87 ton/year Lead Stack: 0.086 pound/hour; 0.0431 ton/year Lead Fugitive: 0.0431 pound/hour;

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Ohio EPA Source Number	Source Identification Number	BAT Determination	Applicable Federal & OAC Rules	Permit Allowable Mass Emissions and/or Control/Usage Requirements
P124 (Mod) Cont'd				0.0216 ton/year Visible particulate emissions shall not exceed 5 percent opacity as a 6-minute average from the stack
P150 (Mod)	10 MMBtu/hr Natural Gas Fired Tundish Preheater No. 1 (Cast-Roll™ Continuous Caster)	Low NO _x Burners 0.089 lb/MMBTU and compliance with the terms of this permit	3745-17-07 3745-17-08 3745-31-05	BAT is more restrictive BAT is more restrictive See I.A.3 for VE limits PM/PM ₁₀ : 0.02 pound/hour; 0.09 ton/year Nitrogen oxides: 0.089 pound/MMBtu; 0.89 pound/hour; 3.9 tons/year Carbon monoxide: 0.84 pound/hour; 3.64 tons/year VOC: 0.055 pound/hour; 0.24 ton/year Sulfur dioxide: 0.006 pound/hour; 0.026 ton/year

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
P151 (Mod)	10 MMBtu/hr Natural Gas Fired Tundish Preheater No. 2 (Cast-Roll™ Continuous Caster)	Low NO _x Burners 0.089 lb/MMBTU and compliance with the terms of this permit	3745-17-07	BAT is more restrictive
			3745-17-08	BAT is more restrictive
			3745-31-05	See I.A.3 for VE limits
				PM/PM ₁₀ : 0.02 pound/hour; 0.09 ton/year
				Nitrogen oxides: 0.089 pound/MMBtu; 0.89 pound/hour; 3.9 tons/year
				Carbon monoxide: 0.84 pound/hour; 3.68 tons/year
				VOC: 0.055 pound/hour; 0.24 ton/year
				Sulfur dioxide: 0.006 pound/hour; 0.026 ton/year

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SUMMARY

TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons/Year*</u>
PM	25.164
PM ₁₀	19.594
SO ₂	5.4148
NO _x	137.602
CO	115.1
VOC	6.82
Pb	0.4118

* The information contained under this Summary section (tons per year) is for informational purposes only and is not enforceable.

Note: The worst case scenario for lead emissions is lead inoculation at the Ladle Inoculation Station in the Vertical Caster.

RECORD(S) RETENTION AND AVAILABILITY

All records required by this Permit to Install shall be retained on file for a period of not less than three years unless otherwise indicated by Ohio Environmental Protection Agency. All records shall be made available to the Director, or any representative of the Director, for review during normal business hours.

REPORTING REQUIREMENTS

Unless otherwise specified, reports required by the Permit to Install need only be submitted to **Canton Air Pollution Control, 420 Market Ave. North, Canton, OH 44702-1544.**

WASTE DISPOSAL

The owner/operator shall comply with any applicable state and federal requirements governing the storage, treatment, transport and disposal of any waste material generated by the operation of the sources.

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MAINTENANCE OF EQUIPMENT

This source and its associated air pollution control system(s) shall be maintained regularly in accordance with good engineering practices and the recommendations of the respective manufacturers in order to minimize air contaminant emissions.

MALFUNCTION/ABATEMENT

In accordance with OAC RULE 3745-15-06, any malfunction of the source(s) or associated air pollution control system(s) shall be reported immediately to the **Canton Air Pollution Control, 420 Market Ave. North, Canton, OH 44702-1544.**

Except as provided by OAC Rule 3745-15-06(A)(3), scheduled maintenance of air pollution control equipment that requires the shutdown or bypassing of air pollution control system(s) must be accompanied by the shutdown of the associated air pollution sources.

AIR POLLUTION NUISANCES PROHIBITED

The air contaminant source(s) identified in this permit may not cause a public nuisance in violation of OAC Rule 3745-15-07.

CONSTRUCTION COMPLIANCE CERTIFICATION

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

ADDITIONAL SPECIAL TERMS AND CONDITIONS

I. Facility

A. Operational Restrictions (Facility)

1. This permit will allow leaded steel to be produced by the existing Cast-Roll™ Continuous Caster and by the new Vertical Caster. All leaded steels were formerly produced by lead ingot inoculation which will be shut down.

At the time this permit was drafted, the permittee had not decided where the lead inoculation would occur in either of the two casters. This permit will, therefore, cover several scenarios for lead inoculation for each caster.

Lead inoculation in the Cast-Roll™ Continuous Caster will be permitted for the following three scenarios:

- a. inoculation at the tundish (Since this inoculation will occur just prior to the casting operation only, the lead emissions from the tundish will have to be captured and vented to a baghouse. In addition, the lead emissions from torch cutting will have to be controlled by the use of water sprays when leaded steel is being cut, regardless of whichever of the three scenarios is chosen);
- b. inoculation at the new Ladle Inoculation Station (LIS) (Since this operation will occur before the metal is poured into the tundish the lead emissions will have to be captured at the following three places: 1) LIS, 2)

The ladle as it sits in the ladle casting position, 3) The tundish); and,

- c. inoculation at the Vacuum Tank Degasser (VTD) (Since the emissions are already being captured at the VTD and vented to a condenser, no additional controls have to be installed at the VTD for lead emissions. Lead emissions will, however, have to be captured and controlled from the ladle, as it sits in the ladle casting position, and from the tundish).

Lead inoculation in the Vertical Caster will be permitted for the following two scenarios:

- a. inoculation at the tundish (Since this inoculation will occur just prior to the casting operation only, the lead emissions from the tundish will have to be captured and vented to a baghouse. In addition, the lead emissions from torch cutting will have to be captured and vented to a baghouse whenever leaded steel is being cut. [Regardless of whichever of the two scenarios is chosen]; and,
- b. inoculation at the new Ladle Inoculation Station (LIS) (Since this operation will occur before the metal is poured into the tundish, the lead emissions will have to be captured at the following three places: 1) The LIS, 2) The ladle as it sits in the ladle casting position, 3) The tundish.

The permittee shall inform the Canton Local Air Agency of which method(s) of lead inoculation it decides to employ. If any changes occur in where lead inoculation will occur, after this initial notification, the permittee shall notify the Canton Local Air Agency prior to such a change.

2. Republic Engineered Steels, Inc. shall restrict the total combined production of leaded steel in both the Vertical Caster and the Cast-Roll™ Continuous Caster to no more than 300,000 tons per year based upon a rolling, 12-month period.

For the first twelve months of producing leaded steels in one of the casters, Republic Engineered Steels, Inc. shall not exceed the following leaded steel production limits for the specific time period:

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<u>Month</u>	<u>Total Allowable Leaded Steel Production</u>
1	25,000 tons
1-2	50,000 tons
1-3	75,000 tons
1-4	100,000 tons
1-5	125,000 tons
1-6	150,000 tons
1-7	175,000 tons
1-8	200,000 tons
1-9	225,000 tons
1-10	250,000 tons
1-11	275,000 tons
1-12	300,000 tons

After the first twelve months of producing leaded steels in either of the casters, Republic Engineered Steels shall restrict the total production of leaded steels in either of the casters to no more than 300,000 tons per year, based upon a consecutive 12-month period, rolled on a monthly basis.

3. As part of the BAT Determination for this facility, the visible emissions of fugitive dust from building roof monitors servicing any of the emissions units found in this permit shall not exceed an average of six (6) percent opacity as a six-minute average, unless otherwise specified. Visible emissions shall be determined by twenty-four (24) consecutive readings in a six-minute period as determined by 40 CFR 60, Appendix A, Method 9.
4. All rolling mill roll bearings shall be of the sealed type to minimize oil leakage and subsequent OC emissions.
5. As part of the PSD Netting analysis for this project, the following schedule of shutdowns must be observed to claim decreases in emissions:
 - a. the ingot inoculation operations (P005 and P118) shall be permanently discontinued within six months after startup of the casting of leaded steels. This

will result in a decrease in PM_{10} emissions of 0.003 ton/yr.;

- b. the 12" Bar Mill Reheat Furnaces (P006 and P007) shall be permanently shut down within 6 months after startup of the SBQ Bar Mill. This will result in the following decreases in emissions: PM/PM_{10} 0.6 ton/year, NO_x 85.7 tons/year and CO 25.7 tons/year;
- c. the Blooming Mill soaking pits (P008-P011 and P013-P016) and the Ball Bottom Anneal Furnaces (P034, P085-P093) shall be permanently shut down within 6 months after startup of the Vertical Caster. The shutdown of the soaking pits will result in the following decreases in emissions: PM/PM_{10} 1 ton/year, NO_x 52.6 tons/year and CO 44.2 tons/year. The shutdown of the ball bottom anneal furnaces will result in the following decreases in emissions: PM/PM_{10} 0.03 ton/year, NO_x 1.21 tons/year and CO 1 ton/year;
- d. two (2) of the ten (10) grinders at the No. 5 steel conditioning (P069-P078) shall be permanently shut down within 6 months after startup of the new Shot Blaster (P142). These shutdowns will result in a decrease in PM_{10} emissions of 2 tons/year and a decrease in PM emissions of 3.3 tons/year;
- e. four (4) of the remaining eight (8) grinders (P069-P078) must be permanently shut down within six months after startup of the No.5 Steel Conditioning Improvements - Shipping and Finishing. These shutdowns will result in a decrease in PM_{10} emissions of 4 tons/year and a decrease in PM emissions of 6.6 tons/year;

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- f. The Old Vertical Caster (F007) was shut down in December, 1995. This shutdown resulted in the following decreases in emissions: PM₁₀ 0.1 ton/year, PM 0.13 ton/year, NO_x 3.9 tons/year and CO 3.3 tons/year; and,
 - g. The 8" Bar Mill Reheat Furnace (P022) was shut down in July 1996. This shutdown resulted in the following decreases in emissions: PM/PM₁₀ 0.3 ton/year, NO_x 36.9 tons/year and CO 11.1 tons/year.
6. The lead emission limits in this permit were based on the fact that the highest lead content of the steel produced would not exceed 0.35 percent of the steel. If this facility wants to produce steel with a lead content exceeding this percentage, it will have to obtain a modification of this permit.

B. Monitoring and/or Recordkeeping Requirements (Facility)

- 1. The permittee shall maintain monthly records of the following information:
 - a. the amount of leaded steel produced by each caster (Vertical and Cast-Roll™); and,
 - b. beginning after the first 12 calendar months of operation after the start of lead inoculation in either the Vertical Caster or the Cast-Roll™ caster, the rolling, 12-month summation of the leaded steel production figures.

Also, during the first 12 calendar months of lead inoculation in either caster, the permittee shall record the cumulative leaded steel production rate for each calendar month.

C. Reporting Requirements (Facility)

1. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month limitation and, for the first 12 calendar months of operation after the start of lead inoculation, all exceedances of the maximum allowable cumulative leaded steel production.

D. Compliance Methods and Testing Requirements (Facility)

1. Compliance with the emission limitation(s) of this permit shall be determined in accordance with the following method(s):

a. Emission Limitation

Visible emissions limits for fugitive dust from roof monitors.

Applicable Compliance Method

Visible emissions shall be determined by using 40 CFR 60, Appendix, Method 9.

E. Miscellaneous Requirements

1. None.

II. Emissions Unit F008 - Vertical Caster Tundish Dump Station

A. Operational Restrictions (F008)

1. Tundish dumping shall take place inside the production building to help contain fugitive dust emissions.
2. The emissions from this emissions unit will be through the production building roof monitor. The opacity of the emissions exiting the production building is limited to no more than 6 percent as a six-minute average. (See term and condition I.A.3).

B. Monitoring and/or Recordkeeping Requirements (F008)

1. None.

C. Reporting Requirements (F008)

1. None.

D. Compliance Methods and Testing Requirements (F008)

1. Compliance with the emission limitation(s) of this permit shall be determined in accordance with the following method(s):

a. Emission Limitation

Visible emissions limits for fugitive dust from roof monitors

Applicable Compliance Method

Visible emissions shall be determined by using 40 CFR 60, Appendix, Method 9.

b. Emission Limitation

1.94 lbs PM/PM₁₀/hr

Applicable Compliance Method

An emission factor from USEPA FIRE dB for steel furnace slag tapping & dumping is 0.9 lb/ton of slag. 2.15 tons/yr X 0.9 lb PM/PM₁₀/ton = 1.94 lbs PM/PM₁₀/hr

c. Emission Limitation

1.22 tons PM/PM₁₀/yr

Applicable Compliance Method

An emission factor from USEPA FIRE dB for steel furnace slag tapping & dumping is 0.9 lb/ton of slag. 2,691 tons/yr X 0.9 lb PM/PM₁₀/ton X 2000 lbs/ton = 1.22 tons PM/PM₁₀/yr

E. Miscellaneous Requirements (F008)

1. None.

III. Emissions Unit P131 - 186.1 MMBTU/hr Natural Gas Fired Bar Mill Reheat Furnace

A. Operational Restrictions (P131)

1. Natural gas shall be the only fuel used in this emissions unit.
2. This emissions unit shall be equipped with low NO_x burners which emit no more than 0.112 lb NO_x/MMBtu.

B. Monitoring and/or Recordkeeping Requirements (P131)

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

C. Reporting Requirements (P131)

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit.
2. The permittee shall submit required reports in the following manner:
 - a. reports shall be submitted to the Canton Local Air Agency; and,
 - b. except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or

preventative measures which have been or will be taken, shall be submitted to the Canton Local Air Agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 15, April 15, July 15, and October 15 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).

D. Compliance Methods and Testing Requirements (P131)

1. Compliance with the emission limitation(s) of this permit shall be determined in accordance with the following method(s):

a. Emission Limitation

0.112 lb NO_x/MMBtu and 20.8 lbs NO_x/hr

Applicable Compliance Method

Emissions testing

b. Emission Limitation

15.63 lbs CO/hr

Applicable Compliance Method

Emission factor found in AP-42 3/98 Edition Table 1.4-1 of 84 lbs CO/MMCF converts to 15.63 lbs/hr.

c. Emission Limitation

0.35 lb PM/PM₁₀/hr

Applicable Compliance Method

Emission factor found in AP-42 3/98 Edition Table 1.4-2 of 1.9

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lbs PM/MMCF converts to 0.35
lbs/hr.

d. Emission Limitation

1.02 lbs VOC/hr

Applicable Compliance Method

Emission factor found in AP-42
3/98 Edition Table 1.4-2 of 5.5
lbs VOC/MMCF converts to 1.02
lbs/hr.

e. Emission Limitation

0.11 lb SO₂/hr

Applicable Compliance Method

Emission factor found in AP-42
3/98 Edition Table 1.4-2 of 0.6
lb SO₂/MMCF converts to 0.11
lb SO₂/hr.

f. Emission Limitation

1.53 tons PM/PM₁₀/yr
91.3 tons NO_x/yr
68.46 tons CO/yr
4.47 tons VOC/yr
0.49 ton SO₂/yr

Applicable Compliance Method

The ton-per-year limitations were
developed by multiplying the
lb/hr limitations by the maximum
operating schedule of 8,760
hrs/yr and dividing by 2,000
lbs/ton. Therefore, provided
compliance is shown with the
hourly limitations, compliance
will also be shown with the
annual limitations.

g. Emission Limitation

5 percent Opacity Visible
Emissions Limit

Applicable Compliance Method

Method 9, 40 CFR Part 60,
Appendix A

Burning natural gas exclusively
makes this an inherently clean
emissions unit.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. the emission testing shall be conducted within 6 months after startup of this emissions unit;
 - b. the test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity unless otherwise specified or approved by the Canton City Health Department, Air Pollution Control Division (Canton Local Air Agency);
 - c. the emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for NO_x utilizing test Method 7, 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA; and,
 - d. not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Canton Local Air Agency. 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 Local Air Agency's refusal to

accept the results of the emission test(s).

Personnel from the Canton Local Air Agency 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.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Canton Local Air Agency within 30 days following completion of the test(s).

E. Miscellaneous Requirements (P131)

1. None.

IV. Emissions Unit P132 - Hot Scarfer

A. Operational Restrictions (P132)

1. The pressure drop across the baghouse shall be maintained within the range of pressure drop in inches of water (e.g., 2.5 to 5.0) established during the most recent emission test that demonstrated that the emissions unit was in compliance.
2. At least 99 percent of the emissions from this emissions unit shall be captured and vented to a baghouse. This baghouse shall have an outlet grain loading of no more than 0.0052 gr/DSCF.
3. The negative static pressure measured inside the capture ductwork entrance shall be maintained at a level in inches of water of no less than the level established during the most recent emissions test during which observations by a representative of the Canton Local

Air Agency established that the capture rate was at least 99%.

B. Monitoring and/or Recordkeeping Requirements (P132)

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.
2. The permittee shall properly install, operate, and maintain equipment to monitor the negative static pressure measured inside the capture ductwork entrance in inches of water while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the negative static pressure on a daily basis.

C. Reporting Requirements (P132)

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the negative static pressure measured inside the capture ductwork entrance did not comply with the minimum level specified above.
3. The permittee shall submit required reports in the following manner:
 - a. reports shall be submitted to the Canton Local Air Agency; and,

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- b. except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventative measures which have been or will be taken, shall be submitted to the Canton Local Air Agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 15, April 15, July 15, and October 15 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).

D. Compliance Methods and Testing Requirements (P132)

- 1. Compliance with the emission limitation(s) of this permit shall be determined in accordance with the following method(s):

- a. Emission Limitation

Stack 0.0052 gr/DSCF and
0.94 lb PM/PM₁₀/hr

Applicable Compliance Method

Emissions testing

b. Emission Limitation

Fugitive 0.08 lb PM/PM₁₀/hr

Applicable Compliance Method

Observations of the capture rate made during the emissions test. Monitoring of static pressure.

c. Emission Limitation

Stack 0.0007 lb Pb/hr

Applicable Compliance Method

The maximum lead content of leaded steel is 0.35%.

d. Emission Limitation

Fugitive 0.00006 lb Pb/hr

Applicable Compliance Method

Observations of the capture rate made during the emissions test. Monitoring of static pressure.

e. Emission Limitation

Stack 0.5 lb NO_x/hr

Applicable Compliance Method

Emission factor from AP-42, 3/98 Edition, Table 1.4-1 for natural gas-fired small boilers <100 MMBtu/hr is 0.1 lb NO_x/MMBtu.
5 MMBtu/hr X 0.1 lb NO_x/MMBtu = 0.5 lb NO_x/hr

f. Emission Limitation

Fugitive 0.005 lb NO_x/hr

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Applicable Compliance Method

Observations of the capture rate made during the emissions test. Monitoring of static pressure.

g. Emission Limitation

PM/PM ₁₀ Stack	4.14 tons/yr
PM/PM ₁₀ Fugitive	0.7 ton/yr
Pb Stack	0.0031 ton/yr
Pb Fugitive	0.0005 ton/yr
NO _x Stack	2.17 tons/yr
NO _x Fugitive	0.022 ton/yr

Applicable Compliance Method

The ton-per-year limitations were developed by multiplying the lb/hr limitations by the maximum operating schedule of 8,760 hrs/yr and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown with the annual limitation.

h. Emission Limitation

5 percent Opacity Visible Emissions Limits from Stack

Applicable Compliance Method

Method 9, 40 CFR Part 60, Appendix A

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

a. the emission testing shall be conducted within 6 months after startup of this emissions unit and at least every 5 years thereafter;

b. the test(s) shall be conducted while the emissions unit is operating at or near its maximum

capacity unless otherwise specified or approved by the Canton City Health Department, Air Pollution Control Division (Canton Local Air Agency);

- c. the emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PM utilizing test Method 5, 40 CFR Part 60, Appendix A. and for lead using Method 12, 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA;
- d. the pressure drop in inches of water across the fabric filter shall be recorded during the emission test. This will be done to establish the range of pressure drop that must be maintained;
- e. the negative static pressure in inches of water measured inside the capture ductwork entrance shall be recorded during the emission test. This will be done to establish the minimum negative static pressure that must be maintained;
- f. a representative from the Canton Local Air Agency will observe the emissions unit during the emissions test to determine whether the required 99% capture rate is being attained;
- g. during the entire emissions test, Method 9 visible emissions observations shall be conducted on the opacity of the visible emissions from the stack(s) servicing this emissions unit. These readings will be conducted to determine compliance with the

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5% opacity limit, as a 6-minute average, for visible emissions from the stack(s) servicing this emissions unit; and,

- h. not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Canton Local Air Agency. 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 Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Canton Local Air Agency 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.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Canton Local Air Agency within 30 days following completion of the test(s).

E. Miscellaneous Requirements (P132)

1. None.

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V. Emissions Unit P133 - 50 MMBtu/hr Natural Gas Fired Bar Mill Slow Cool Station

A. Operational Restrictions (P133)

1. Natural gas shall be the only fuel used in this emissions unit.
2. This emissions unit shall be equipped with low NO_x burners which emit no more than 0.112 lb NO_x/MMBtu.

B. Monitoring and/or Recordkeeping Requirements (P133)

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

C. Reporting Requirements (P133)

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit.
2. The permittee shall submit required reports in the following manner:
 - a. reports shall be submitted to the Canton Local Air Agency; and,
 - b. except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventative measures which have

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been or will be taken, shall be submitted to the Canton Local Air Agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 15, April 15, July 15, and October 15 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).

D. Compliance Methods and Testing Requirements (P133)

1. Compliance with the emission limitation(s) of this permit shall be determined in accordance with the following method(s):

a. Emission Limitation

0.112 lb NO_x/MMBtu and 5.6 lbs NO_x/hr

Applicable Compliance Method

Mfg. guarantee

b. Emission Limitation

4.2 lbs CO/hr

Applicable Compliance Method

Emission factor found in AP-42, 3/98 Edition, Table 1.4-1 of 84 lbs CO/MMCF converts to 4.2 lbs CO/hr.

c. Emission Limitation

0.1 lb PM/PM₁₀/hr

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Applicable Compliance Method

Emission factor found in AP-42, 3/98 Edition, Table 1.4-2 of 1.9 lbs PM/MMCF converts to 0.1 lb PM/hr.

d. Emission Limitation

0.03 lb SO₂/hr

Applicable Compliance Method

Emission factor found in AP-42, 3/98 Edition, Table 1.4-2 of 0.6 lb SO₂/MMCF converts to 0.03 lb SO₂/hr.

e. Emission Limitation

0.28 lb VOC/hr

Applicable Compliance Method

Emission factor found in AP-42, 3/98 Edition, Table 1.4-2 of 5.5 lbs VOC/MMCF converts to 0.28 lb VOC/hr.

f. Emission Limitation

0.44 ton PM/PM₁₀/yr
24.53 tons NO_x/yr
18.4 tons CO/yr
0.13 ton SO₂/yr
1.23 tons VOC/yr

Applicable Compliance Method

The ton-per-year limitations were developed by multiplying the lb/hr limitations by the maximum operating schedule of 8,760 hrs/yr and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown with the annual limitations.

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E. Miscellaneous Requirements (P133)

1. None.

- VI. Emissions Unit P134 - Bar Mill Hot Saw No. 1
Emissions Unit P135 - Bar Mill Hot Saw No. 2
Emissions Unit P136 - Bar Mill Hot Saw No. 3

A. Operational Restrictions (P134, P135, P136)

1. The pressure drop across the baghouse shall be maintained within the range of pressure drop in inches of water (e.g., 2.5 to 5.0) established during the most recent emission test that demonstrated that the emissions unit was in compliance.
2. At least 99% of the emissions from this emissions unit shall be captured and vented to a baghouse which has an outlet grain loading of no more than 0.0052 gr/DSCF.
3. The negative static pressure measured inside the capture ductwork entrance shall be maintained at a level in inches of water of no less than the level established during the most recent emissions test during which observations by a representative of the Canton Local Air Agency established that the capture rate was at least 99%.

B. Monitoring and/or Recordkeeping Requirements (P134, P135, P136)

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.
2. The permittee shall properly install, operate, and maintain equipment to monitor the negative static pressure measured inside the capture ductwork entrance in inches of water while the emissions unit is in operation. The monitoring equipment

shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the negative static pressure on a daily basis.

C. Reporting Requirements (P134, P135, P136)

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the negative static pressure measured inside the capture ductwork entrance did not comply with the minimum level specified above.
3. The permittee shall submit required reports in the following manner:
 - a. reports shall be submitted to the Canton Local Air Agency; and,
 - b. except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventative measures which have been or will be taken, shall be submitted to the Canton Local Air Agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report which states that no deviations

occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 15, April 15, July 15, and October 15 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).

D. Compliance Methods and Testing Requirements (P134, P135, P136)

1. Compliance with the emission limitation(s) of this permit shall be determined in accordance with the following method(s):

a. Emission Limitation

0.0052 gr/DSCF and 1.45 lbs PM/hr
(Combined limits for P134, P135 and P136)

Applicable Compliance Method

Emissions testing

b. Emission Limitation

0.87 lb PM₁₀/hr (Combined limit for P134, P135 and P136)

Applicable Compliance Method

60 percent of PM is PM₁₀, based on USEPA spec dB estimate.

c. Emission Limitation

0.0051 lb Pb/hr (Combined limit for P134, P135 and P136)

Applicable Compliance Method

Emission testing

d. Emission Limitation

6.36 tons PM/yr
3.82 tons PM₁₀/yr

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0.022 ton Pb/yr
(Combined limits for P134, P135
& P136)

Applicable Compliance Method

The ton-per-year limitations were developed by multiplying the lb/hr limitations by the maximum operating schedule of 8,760 hrs/yr and dividing by 2,000 lbs/ton.

e. Emission Limitation

5 percent Opacity Visible
Emissions Limits

Applicable Compliance Method

Method 9, 40 CFR Part 60,
Appendix A

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

a. the emission testing shall be conducted within 6 months after startup of this emissions unit and approximately every 5 years thereafter;

b. the test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity unless otherwise specified or approved by the Canton City Health Department, Air Pollution Control Division (Canton Local Air Agency);

c. the emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PM utilizing test Method 5, 40 CFR Part 60, Appendix A and for lead utilizing test Method 12, 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval

from the Ohio EPA. If the tested emission rate for PM exceeds the allowable emission rate for PM₁₀, then a determination of how much of the PM was PM₁₀ shall be made to ensure compliance;

- d. the pressure drop in inches of water across the fabric filter shall be recorded during the emission test. This will be done to establish the range of pressure drop that must be maintained;
- e. the negative static pressure in inches of water measured inside the capture ductwork entrance shall be recorded during the emission test. This will be done to establish the minimum negative static pressure that must be maintained;
- f. a representative from the Canton Local Air Agency will observe the emissions unit during the emissions test to determine whether the required 99% capture rate is being attained;
- g. during the entire emissions test, Method 9 visible emissions observations shall be conducted on the opacity of the visible emissions from the stack(s) servicing this emissions unit. These readings will be conducted to determine compliance with the 5% opacity limit, as a 6-minute average, for visible emissions from the stack(s) servicing this emissions unit; and,
- h. not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Canton Local Air Agency. 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 Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Canton Local Air Agency 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.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Canton Local Air Agency within 30 days following completion of the test(s).

E. Miscellaneous Requirements (P134, P135, P136)

1. None.

VII. Emissions Unit P137 - 10 MMBtu/hr Natural Gas-Fired
Tundish Preheater No. 1 Vertical Caster
Emissions Unit P138 - 10 MMBtu/hr Natural Gas-Fired
Tundish Preheater No. 2 Vertical Caster

A. Operational Restrictions (P137, P138)

1. The only fuel to be burned in this emissions unit shall be natural gas.
2. This emissions unit shall be equipped with low NO_x burners rated at 0.089 lb NO_x/MMBtu or better.

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B. Monitoring and/or Recordkeeping Requirements
(P137, P138)

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

C. Reporting Requirements (P137, P138)

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit.
2. The permittee shall submit required reports in the following manner:
 - a. reports shall be submitted to the Canton Local Air Agency; and,
 - b. except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventative measures which have been or will be taken, shall be submitted to the Canton Local Air Agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 15, April 15, July 15, and October 15 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).

D. Compliance Methods and Testing Requirements (P137,
P138)

1. Compliance with the emission limitation(s)
of this permit shall be determined in
accordance with the following method(s):

a. Emission Limitation

0.089 lb NO_x/MMBtu, 0.89 lb
NO_x/hr

Applicable Compliance Method

Mfg. guarantee

b. Emission Limitation

0.02 lb PM/PM₁₀/hr

Applicable Compliance Method

Emission factor found in AP-42,
3/98 Edition, Table 1.4-2 of 1.9
lbs PM/MMCF converts to 0.02 lb
PM/hr.

c. Emission Limitation

0.84 lb CO/hr

Applicable Compliance Method:

Emission factor found in AP-42,
3/98 Edition, Table 1.4-1 of 84
lbs CO/MMCF converts to 0.84 lb
CO/hr.

d. Emission Limitation

0.055 lb VOC/hr

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Applicable Compliance Method

Emission factor found in AP-42, 3/98 Edition, Table 1.4-2 of 5.8 lbs VOC/MMCF converts to 0.055 lb VOC/hr.

e. Emission Limitation

0.006 lb SO₂/hr

Applicable Compliance Method

Emission factor found in AP-42, 3/98 Edition, Table 1.4-2 of 0.6 lb SO₂/MMCF converts to 0.006 lb SO₂/hr.

f. Emission Limitation

0.09 ton PM-PM₁₀/yr
3.9 tons NO_x/yr
3.68 tons CO/yr
0.24 ton VOC/yr
0.026 ton SO₂/yr

Applicable Compliance Method

The ton-per-year limitations were developed by multiplying the lb/hr limitations by the maximum operating schedule of 8,760 hrs/yr and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown with the annual limitation.

E. Miscellaneous Requirements (P137, P138)

1. None.

VIII. Emissions Unit P139 - Emergency Generator Bar Mill
Emissions Unit P140 - Emergency Generator Vertical Caster

A. Operational Restrictions (P139, P140)

1. This emissions unit shall not operate more than 500 hours in any calendar year.

2. Natural gas shall be the only fuel used in this emissions unit.

B. Monitoring and/or Recordkeeping Requirement (P139, P140)

1. The permittee shall maintain monthly records of the operating hours of this emissions unit.
2. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

C. Reporting Requirements (P139, P140)

1. By February 15 of each year, the permittee shall submit an annual report which identifies any exceedances of the 500 hr/yr operating limit during the previous calendar year. This report shall be submitted to the Canton City Health Department, Air Pollution Control Division, 420 Market Avenue N., Canton Ohio 44702.
2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit.
3. The permittee shall submit required reports in the following manner:
 - a. reports shall be submitted to the Canton Local Air Agency; and,
 - b. except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any

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corrective actions or preventative measures which have been or will be taken, shall be submitted to the Canton Local Air Agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 15, April 15, July 15, and October 15 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).

D. Compliance Methods and Testing Requirements (P139, P140)

1. Compliance with the emission limitation(s) of this permit shall be determined in accordance with the following method(s):

a. Emission Limitation

7.99 lbs NO_x/hr

Applicable Compliance Method

The emission factor from USEPA FIRE dB SCC 20200202 for natural gas int. comb. eng. is 2,840 lbs NO_x/MMCF. 2,840 lbs NO_x/MMCF X 0.0028 MMCF/hr = 7.95 lbs NO_x/hr

b. Emission Limitation

1.12 lbs CO/hr

Applicable Compliance Method

The emission factor from USEPA FIRE dB SCC 20200202 for natural gas int. comb. eng is 399 lbs CO/MMCF. 399 lbs CO/MMCF X 0.0028 MMCF/hr = 1.12 lbs CO/hr

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c. Emission Limitation

0.028 lb PM/PM₁₀/hr

Applicable Compliance Method

The emission factor from USEPA FIRE dB SCC 20200202 for natural gas int. comb. eng is 10 lbs PM/MMCF. 10 lbs PM/MMCF X 0.0028 MMCF/hr = 0.028 lb PM/hr

d. Emission Limitation

0.33 lb VOC/hr

Applicable Compliance Method:

The emission factor from USEPA FIRE dB scc20200202 for natural gas int. comb. eng. is 116 lbs VOC/MMCF. 116 lbs VOC/MMCF X 0.0028 MMCF/hr = 0.32 lb VOC/hr

e. Emission Limitation

0.0017 lb SO₂/hr

Applicable Compliance Method

The emission factor from USEPA FIRE dB SCC 20200202 for natural gas int. comb. eng. is 0.6 lb SO₂/MMCF. 0.6 lb₂ SO/MMCF X 0.0028 MMCF/hr = 0.0017 lb SO₂/hr

f. Emission Limitation

0.007 ton PM/PM₁₀/yr

1.99 tons NO_x/yr

0.28 ton CO/yr

0.08 ton VOC/yr

0.0004 ton SO₂/yr

Applicable Compliance Method

The ton-per-year limitations were developed by multiplying the lb/hr limitations by the maximum operating schedule of 200 hrs/yr, and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also

be shown with the annual limitations.

g. Emission Limitation

5 percent Opacity Visible Emissions Limits

Applicable Compliance Method

Method 9, 40 CFR Part 60, Appendix A
Inherently clean fuel

h. Emission Limitation

500 hours/yr of operation

Applicable Compliance Method

Monthly recordkeeping

E. Miscellaneous Requirements (P139, P140)

1. None.

IX. Emissions Unit P141 - Vertical Caster Torch Cutoff

A. Operational Restrictions (P141)

1. The pressure drop across the baghouse shall be maintained within the range of pressure drop in inches of water (e.g., 2.5 to 5.0) established during the most recent emission test that demonstrated that the emissions unit was in compliance.
2. A fume collection system shall be installed to minimize or eliminate visible particulate emissions of fugitive dust. When leaded steel is being cut at least 99 percent of the emissions from this emissions unit shall be captured and vented to a baghouse. This baghouse shall have an outlet grain loading of no more than 0.002 gr/DSCF.
3. The negative static pressure measured inside the capture ductwork entrance shall be maintained at a level in inches of water of no less than the level established during the most recent emissions test during which observations by a representative of the Canton Local

Air Agency established that the capture rate was at least 99%.

B. Monitoring and/or Recordkeeping Requirements (P141)

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while leaded steel is being cut in this emissions unit. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.
2. The permittee shall properly install, operate, and maintain equipment to monitor the negative static pressure measured inside the capture ductwork entrance in inches of water while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the negative static pressure on a daily basis.

C. Reporting Requirements (P141)

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the negative static pressure measured inside the capture ductwork entrance did not comply with the minimum level specified above.
3. The permittee shall submit required reports in the following manner:
 - a. reports shall be submitted to the Canton Local Air Agency; and,

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- b. except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventative measures which have been or will be taken, shall be submitted to the Canton Local Air Agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 15, April 15, July 15, and October 15 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).

D. Compliance Methods and Testing Requirements (P141)

1. Compliance with the emission limitation(s) of this permit shall be determined in accordance with the following method(s):

a. Emission Limitation

When cutting leaded steel
0.002 gr/DSCF and 0.51 lb
PM/PM₁₀/hr

Applicable Compliance Method

Emissions testing

b. Emission Limitation

0.026 lb Pb/hr

Applicable Compliance Method

The maximum lead content of leaded steel is 0.35%.

c. Emission Limitation

Pb 0.039 ton/yr

Applicable Compliance Method

The ton-per-year limitations were developed by multiplying the lb/hr limitations by 3,000 hrs/yr (based on the limit of 300,000 tons of leaded steel per year) and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown with the annual limitation.

d. Emission Limitation

When cutting nonleaded steels
PM/PM₁₀ 0.035 lb/hr

Applicable Compliance Method

An emission factor of 0.0003 lb PM/PM₁₀ per ton of steel cut is used. The maximum PWR is 116 tons/hr.

116 tons/hr x 0.0003 lb
PM/PM₁₀/ton = 0.035 lb PM/PM₁₀/hr

e. Emission Limitation

PM/PM₁₀ 0.15 ton/year

Applicable Compliance Method

8,760 hrs/year times 0.035 lb/hr equals 0.15 ton/year.

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f. Emission Limitation

5 percent Opacity Visible
Emissions Limits

Applicable Compliance Method

Method 9, 40 CFR Part 60,
Appendix A

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

a. the emission testing shall be conducted within 6 months after startup of this emissions unit and approximately every 5 years thereafter;

b. the test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity unless otherwise specified or approved by the Canton City Health Department, Air Pollution Control Division (Canton Local Air Agency);

c. the emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PM utilizing test Method 5, 40 CFR Part 60, Appendix A and for lead utilizing test Method 12, 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA;

d. the pressure drop in inches of water across the fabric filter shall be recorded during the emission test. This will be done to establish the range of pressure drop that must be maintained;

e. the negative static pressure in inches of water measured inside the capture ductwork entrance

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shall be recorded during the emission test. This will be done to establish the minimum negative static pressure that must be maintained;

- f. a representative from the Canton Local Air Agency will observe the emissions unit during the emissions test to determine whether the required 99% capture rate is being attained;
- g. during the entire emissions test, Method 9 visible emissions observations shall be conducted on the opacity of the visible emissions from the stack(s) servicing this emissions unit. These readings will be conducted to determine compliance with the 5% opacity limit, as a 6-minute average, for visible emissions from the stack(s) servicing this emissions unit; and,
- h. not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Canton Local Air Agency. 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 Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Canton Local Air Agency 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.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Canton Local Air Agency within 30 days following completion of the test(s).

E. Miscellaneous Requirements (P141)

1. None.

X. Emissions Unit P142 - Shot Blaster

A. Operational Restrictions (P142)

1. The pressure drop across the baghouse shall be maintained within the range of pressure drop in inches of water (e.g., 2.5 to 5.0) established during the most recent emission test that demonstrated that the emissions unit was in compliance.
2. At least 99 percent of the emissions from this emissions unit shall be captured and vented to a baghouse. This baghouse shall have an outlet grain loading of no more than 0.0052 gr/DSCF.
3. The negative static pressure measured inside the capture ductwork entrance shall be maintained at a level in inches of water of no less than the level established during the most recent emissions test during which observations by a representative of the Canton Local Air Agency established that the capture rate was at least 99%.

B. Monitoring and/or Recordkeeping Requirements (P142)

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.
2. The permittee shall properly install, operate, and maintain equipment to monitor the negative static pressure measured inside the capture ductwork entrance in inches of water while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the negative static pressure on a daily basis.

C. Reporting Requirements (P142)

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the negative static pressure measured inside the capture ductwork entrance did not comply with the minimum level specified above.
3. The permittee shall submit required reports in the following manner:
 - a. reports shall be submitted to the Canton Local Air Agency; and,
 - b. except as otherwise may be provided in the terms and conditions for a specific

emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventative measures which have been or will be taken shall be submitted to the Canton Local Air Agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 15, April 15, July 15, and October 15 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).

D. Compliance Methods and Testing Requirements (P142)

1. Compliance with the emission limitation(s) of this permit shall be determined in accordance with the following method(s):

a. Emission Limitation

0.0052 gr/DSCF and 0.76 lb PM

Applicable Compliance Method

Emissions testing

b. Emission Limitation

0.46 lb PM₁₀/hr

Applicable Compliance Method

Emissions testing

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c. Emission Limitation

0.003 lb Pb/hr

Applicable Compliance Method

Emission testing

d. Emission Limitation

PM 3.32 tons/yr

PM₁₀ 1.99 tons/yr

Pb 0.013 ton/yr

Applicable Compliance Method

The ton-per-year limitations were developed by multiplying the lb/hr limitations by the maximum operating schedule of 8,760 hrs/yr and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown with the annual limitation.

e. Emission Limitation

5 percent Opacity Visible Emissions Limits

Applicable Compliance Method

Method 9, 40 CFR Part 60, Appendix A

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

a. the emission testing shall be conducted within 6 months after startup of this emissions unit and approximately every 5 years thereafter;

b. the test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity unless otherwise specified or approved by the Canton City Health Department,

Air Pollution Control Division
(Canton Local Air Agency);

- c. the emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PM utilizing test Method 5, 40 CFR Part 60, Appendix A and for lead utilizing test Method 12, 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA. If the tested emission rate for PM exceeds the allowable emission rate for PM₁₀, then a determination of how much of the PM was PM₁₀ shall be made to ensure compliance;
- d. the pressure drop in inches of water across the fabric filter shall be recorded during the emission test. This will be done to establish the range of pressure drop that must be maintained;
- e. the negative static pressure in inches of water measured inside the capture ductwork entrance shall be recorded during the emission test. This will be done to establish the minimum negative static pressure that must be maintained;
- f. a representative from the Canton Local Air Agency will observe the emissions unit during the emissions test to determine whether the required 99% capture rate is being attained;
- g. during the entire emissions test, Method 9 visible emissions observations shall be conducted on the opacity of the visible emissions from the stack(s) servicing this emissions unit. These readings will be conducted to determine compliance with the

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5% opacity limit, as a 6-minute average, for visible emissions from the stack(s) servicing this emissions unit; and,

- h. not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Canton Local Air Agency. 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 Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Canton Local Air Agency 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.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Canton Local Air Agency within 30 days following completion of the test(s).

E. Miscellaneous Requirements (P142)

1. None.

- XI. Emissions Unit P143 - Cast Roll Hot Saw #1
Emissions Unit P144 - Cast Roll Hot Saw #2

A. Operational Restrictions (P143, P144)

1. The pressure drop across the baghouse shall be maintained within the range of pressure drop in inches of water (e.g., 2.5 to 5.0) established during the most recent emission test that demonstrated that the emissions unit was in compliance.
2. At least 99% of the emissions from this emissions unit shall be captured and vented to a baghouse which has an outlet grain loading of no more than 0.0052 gr/DSCF.
3. The negative static pressure measured inside the capture ductwork entrance shall be maintained at a level in inches of water of no less than the level established during the most recent emissions test during which observations by a representative of the Canton Local Air Agency established that the capture rate was at least 99%.

B. Monitoring and/or Recordkeeping Requirements (P143, P144)

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.
2. The permittee shall properly install, operate, and maintain equipment to monitor the negative static pressure measured inside the capture ductwork entrance in inches of water while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

The permittee shall record the negative static pressure on a daily basis.

C. Reporting Requirements (P143, P144)

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the negative static pressure measured inside the capture ductwork entrance did not comply with the minimum level specified above.
3. The permittee shall submit required reports in the following manner:
 - a. reports shall be submitted to the Canton Local Air Agency; and,
 - b. except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventative measures which have been or will be taken, shall be submitted to the Canton Local Air Agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 15, April 15, July 15, and October 15

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).

D. Compliance Methods and Testing Requirements (P143, P144)

1. Compliance with the emission limitation(s) of this permit shall be determined in accordance with the following method(s):

a. Emission Limitation

0.0052 gr/DSCF and 0.97 lb PM/hr
(Combined Limit for P143 and P144)

Applicable Compliance Method

Emissions testing

b. Emission Limitation

0.58 lb PM₁₀/hr (Combined Limit
for P143 and P144)

Applicable Compliance Method

60 percent of PM is PM₁₀ based on
USEPA spaced dB estimate.

c. Emission Limitation

0.0034 lb Pb/hr (Combined Limit
for P143 and P144)

Applicable Compliance Method

Emission testing

d. Emission Limitation (Combined
Limits for P143 and P144)

4.24 tons PM/yr
2.54 tons PM₁₀/yr
0.015 ton Pb/yr

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Applicable Compliance Method

The ton-per-year limitations were developed by multiplying the lb/hr limitations by the maximum operating schedule of 8,760 hrs/yr and dividing by 2,000 lbs/ton.

e. Emission Limitation

5 percent Opacity Visible Emissions Limits

Applicable Compliance Method

Method 9, 40 CFR Part 60, Appendix A

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

a. the emission testing shall be conducted within 6 months after startup of this emissions unit and approximately every 5 years thereafter;

b. the test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity unless otherwise specified or approved by the Canton City Health Department, Air Pollution Control Division (Canton Local Air Agency);

c. the emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PM utilizing test Method 5, 40 CFR Part 60, Appendix A and for lead utilizing test Method 12, 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA. If the tested PM emission rate exceeds the allowable emission rate for PM₁₀, a determination shall be made of how much of the PM is PM₁₀ in

order to show compliance with the PM_{10} limit;

- d. the pressure drop in inches of water across the fabric filter shall be recorded during the emission test. This will be done to establish the range of pressure drop that must be maintained;
- e. the negative static pressure in inches of water measured inside the capture ductwork entrance shall be recorded during the emission test. This will be done to establish the minimum negative static pressure that must be maintained;
- f. a representative from the Canton Local Air Agency will observe the emissions unit during the emissions test to determine whether the required 99% capture rate is being attained;
- g. during the entire emissions test, Method 9 visible emissions observations shall be conducted on the opacity of the visible emissions from the stack(s) servicing this emissions unit. These readings will be conducted to determine compliance with the 5% opacity limit, as a 6-minute average, for visible emissions from the stack(s) servicing this emissions unit; and
- h. not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Canton Local Air Agency. 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 Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Canton Local Air Agency 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.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Canton Local Air Agency within 30 days following completion of the test(s).

E. Miscellaneous Requirements (P143, P144)

1. None.

XII. Emissions Unit P145 - Cast-Roll™ Continuous Caster Torch Cut-Off

A. Operational Restrictions (P145)

1. When leaded steels are being cut by the torch cutters, high-pressure water sprays shall be employed to control particulate emissions. These water sprays shall have a minimum control efficiency for both particulate matter and lead emissions of 90 percent.

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2. This emissions unit was formerly part of emission unit P125 which was identified as the Cast-Roll™ Continuous Caster.

B. Monitoring and/or Recordkeeping Requirements (P145)

1. Monthly records shall be maintained showing the amount of leaded steel produced by the Cast-Roll™ Continuous Caster.

C. Reporting Requirements (P145)

1. None.

D. Compliance Methods and Testing Requirements (P145)

1. Compliance with the emission limitation(s) of this permit shall be determined in accordance with the following method(s):

a. Emission Limitation

When Cutting leaded Steel
PM/PM₁₀ 0.36 lb/hr

Applicable Compliance Method

Multiply Kobe Steel emission factor of 0.0264 lb PM-PM₁₀/ton times the maximum PWR of 136 tons/hr equals 3.6 lbs/hr times 0.1 (90 percent control eff. water sprays).

b. Emission Limitation

When cutting leaded steel
Pb 0.018 lb/hr

Applicable Compliance Method

5 percent of dust collected from cutting leaded steel is lead.

c. Emission Limitation

When cutting nonleaded steel

PM/PM₁₀ 0.04 lb/hour

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Applicable Compliance Method

Use the emission factor of 0.0003 lb PM/PM₁₀ per ton of steel cut and the maximum process rate weight of 136 tons/hr.

$$0.0003 \text{ lb PM/PM}_{10}/\text{ton} \times 136 \text{ tons/hr} = 0.04 \text{ lb PM/PM}_{10}/\text{hr}$$

d. Emission Limitation

PM/PM₁₀ 0.17 ton/year

Applicable Compliance Method

Multiply hourly emission limit of 0.04 lb PM/PM₁₀/hr times 8,760 hours/year and divide by 2,000 to get 0.17 ton/yr.

e. Emission Limitation

0.020 ton Pb/yr

Applicable Compliance Method

Multiply the hourly emission limit of 0.018 lb/hr times 2,200 hrs/yr (based on the limit of 300,000 tons of leaded steel per year).

E. Miscellaneous Requirements (P145)

1. None.

XIII. Emissions Unit P146 - Vertical Caster LIS

A. Operational Restrictions (P146)

1. The pressure drop across the baghouse shall be maintained within the range of pressure drop in inches of water (e.g., 2.5 to 5.0) established during the most recent emission test that demonstrated that the emissions unit was in compliance.
2. At least 99% of the emissions from this emissions unit shall be captured and vented to a baghouse which has an outlet grain loading of no more than 0.002 gr/DSCF.

3. A ladle cover shall be used at all times to minimize or eliminate visible particulate emissions of fugitive dust during ladle transfer of molten leaded steel from the LIS to the caster.
4. During lead inoculation at the LIS, the ladle will be equipped with a ladle cover with an exhaust port. The capture efficiency shall be sufficient enough to minimize or eliminate the visible particulate emissions of fugitive dust.
5. The negative static pressure measured inside the capture ductwork entrance shall be maintained at a level in inches of water of no less than the level established during the most recent emissions test during which observations by a representative of the Canton Local Air Agency established that the capture rate was at least 99%.

B. Monitoring and/or Recordkeeping Requirements (P146)

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a weekly daily basis.
2. The permittee shall properly install, operate, and maintain equipment to monitor the negative static pressure measured inside the capture ductwork entrance in inches of water while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the negative static pressure on a daily basis.

C. Reporting Requirements (P146)

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the negative static pressure measured inside the capture ductwork entrance did not comply with the minimum level specified above.
3. The permittee shall submit required reports in the following manner:
 - a. reports shall be submitted to the Canton Local Air Agency; and,
 - b. except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventative measures which have been or will be taken shall be submitted to the Canton Local Air Agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 15, April 15, July 15, and October 15 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).

D. Compliance Methods and Testing Requirements (P146)

1. Compliance with the emission limitation(s) of this permit shall be determined in accordance with the following method(s):

a. Emission Limitation

PM/PM₁₀ Stack
0.002 gr/DSCF and 0.4 lb/hr

Applicable Compliance Method

Emissions testing

b. Emission Limitation

PM/PM₁₀ Fugitive
0.47 lb/hr

Applicable Compliance Method

Observations of the capture efficiency and monitoring the negative static pressure.

c. Emission Limitation

Lead Stack
0.092 lb Pb/hr

Applicable Compliance Method

Emission testing

d. Emission Limitation

Lead Fugitive
0.393 lb/hr

Applicable Compliance Method

Observations of the capture efficiency and monitoring the negative static pressure.

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e. Emission Limitation

PM/PM ₁₀ Stack	0.22 ton/yr
PM/PM ₁₀ Fugitive	0.26 ton/yr
Lead Stack	0.0505 ton/yr
Lead Fugitive	0.2157 ton/yr

Applicable Compliance Method

The ton-per-year limitations were developed by multiplying the lb/hr limitations by 1,100 hrs/yr (based on the limit of 300,000 tons leaded steel year) and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown with the annual limitation.

f. Emission Limitation

5 percent Opacity Visible Emissions Limits

Applicable Compliance Method

Method 9, 40 CFR Part 60, Appendix A

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

a. the emission testing shall be conducted within 6 months after startup of this emissions unit and approximately every 5 years thereafter;

b. the test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity unless otherwise specified or approved by the Canton City Health Department, Air Pollution Control Division (Canton Local Air Agency);

c. the emissions testing shall be conducted to demonstrate compliance with the allowable

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mass emission rate for PM utilizing test Method 5, 40 CFR Part 60, Appendix A and for lead utilizing test Method 12, 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA. If the tested PM emission rate exceeds the allowable emission rate for PM_{10} , a determination shall be made of how much of the PM is PM_{10} in order to show compliance with the PM_{10} limit;

- d. the pressure drop in inches of water across the fabric filter shall be recorded during the emission test. This will be done to establish the range of pressure drop that must be maintained;
- e. the negative static pressure in inches of water measured inside the capture ductwork entrance shall be recorded during the emission test. This will be done to establish the minimum negative static pressure that must be maintained;
- f. a representative from the Canton Local Air Agency will observe the emissions unit during the emissions test to determine whether the required 99% capture rate is being attained;
- g. during the entire emissions test, Method 9 visible emissions observations shall be conducted on the opacity of the visible emissions from the stack(s) servicing this emissions unit. These readings will be conducted to determine compliance with the 5% opacity limit, as a 6-minute average, for visible emissions from the stack(s) servicing this emissions unit; and,

- h. not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Canton Local Air Agency. 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 Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Canton Local Air Agency 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.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Canton Local Air Agency within 30 days following completion of the test(s).

E. Miscellaneous Requirements (P146)

1. None.

XIV. Emissions Unit P147 - Vertical Caster Tundish

A. Operational Restrictions (P147)

1. This emissions unit can be operated under any one of the following three scenarios:

a. Scenario No. 1

Leaded steel is being cast in the Vertical Caster where the lead is added at the tundish. (The tundish holds the steel just prior to when it is cast into blooms.) Under Scenario No. 1, emissions from the tundish shall be captured and vented to a 15,000 ACFM baghouse dedicated solely to the tundish. The capture efficiency to the baghouse shall be a minimum of 99 percent except during the initial filling period when the capture efficiency shall be a minimum of 80 percent.

b. Scenario No. 2

Leaded steel is being cast in the Vertical Caster where the lead is added at the Ladle Inoculation Station (LIS). (If lead is added at the LIS, the emissions from both the ladle when it is in casting position and from the tundish will be vented to the same 46,250 ACFM baghouse).

c. Scenario No. 3

Nonleaded steel is being cast in the Vertical Caster.

2. When leaded steel is not being produced, the emissions from neither the tundish nor from the ladle, when it is in the casting position, need to be captured.
3. The pressure drop across either baghouse which is needed shall be maintained within the range of pressure drop in inches of water (e.g., 2.5 to 5.0) established during the most recent emission test that demonstrated that the emissions unit was in compliance.
4. The baghouse selected to service the tundish shall have an outlet grain loading of no more than 0.002 gr/DSCF.

5. The tundish shall be equipped to minimize or eliminate the entrainment of air and subsequent emissions from the inoculation process. A tundish cover with exhaust ports shall be utilized.
6. The negative static pressure measured inside the capture ductwork entrance shall be maintained at a level in inches of water of no less than the level established during the most recent emissions test during which observations by a representative of the Canton Local Air Agency established that the capture rate was at least 99%.

B. Monitoring and/or Recordkeeping Requirements (P147)

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.
2. The permittee shall properly install, operate, and maintain equipment to monitor the negative static pressure measured inside the capture ductwork entrance in inches of water while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the negative static pressure on a daily basis.

C. Reporting Requirements (P147)

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

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2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the negative static pressure measured inside the capture ductwork entrance did not comply with the minimum level specified above.
3. The permittee shall submit required reports in the following manner:
 - a. reports shall be submitted to the Canton Local Air Agency; and,
 - b. except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventative measures which have been or will be taken shall be submitted to the Canton Local Air Agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 15, April 15, July 15, and October 15 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).

D. Compliance Methods and Testing Requirements (P147)

1. Compliance with the emission limitation(s) of this permit shall be determined in accordance with the following method(s):

a. Emission Limitation

Stack PM/PM₁₀ Lead Inoculation at Tundish
0.002 gr/DSCF and 0.152 lb PM/hr

Applicable Compliance Method

Emissions testing

b. Emission Limitation

Fugitive PM/PM₁₀ Lead Inoculation at Tundish
0.2 lb PM/PM₁₀/hr

Applicable Compliance Method

Observations of capture efficiency and monitoring of negative static pressure.

c. Emission Limitation

Stack Lead Lead Inoculation at Tundish
0.007 lb Pb/hr

Applicable Compliance Method

Emission testing

d. Emission Limitation

Fugitive Lead Lead Inoculation at Tundish
0.168 lb Pb/hr

Applicable Compliance Method

The maximum lead content of the steel is 0.35 percent.

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e. Emission Limitation

Stack PM/PM₁₀ Lead Inoculation
at LIS
0.002 gr/DSCF and 0.54 lb
PM/PM₁₀/hr

Applicable Compliance Method

Emission testing

f. Emission Limitation

Stack Lead Lead Inoculation at
LIS
0.025 lb Pb/hr

Applicable Compliance Method

Emission testing

g. Emission Limitation

Fugitive Lead Lead Inoculation
at LIS
0.008 lb Pb/hr

Applicable Compliance Method

Observations of capture
efficiency and monitoring of
negative static pressure.

h. Emission Limitation

Yearly limits

Applicable Compliance Method

The ton-per-year limitations were developed by multiplying the lb/hr limitations by 2,561 hrs/yr (based on the limit of 300,000 tons leaded steel/year), and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown with the annual limitation.

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i. Emission Limitation

5 percent Opacity Visible
Emissions Limits

Applicable Compliance Method

Method 9, 40 CFR Part 60,
Appendix A

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

a. the emission testing shall be conducted within 6 months after startup of this emissions unit and approximately every 5 years thereafter;

b. the test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity unless otherwise specified or approved by the Canton City Health Department, Air Pollution Control Division (Canton Local Air Agency);

c. the emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PM utilizing test Method 5, 40 CFR Part 60, Appendix A and for lead utilizing test Method 12, 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA;

d. the pressure drop in inches of water across the fabric filter shall be recorded during the emission test. This will be done to establish the range of pressure drop that must be maintained;

e. the negative static pressure in inches of water measured inside the capture ductwork entrance

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shall be recorded during the emission test. This will be done to establish the minimum negative static pressure that must be maintained;

- f. a representative from the Canton Local Air Agency will observe the emissions unit during the emissions test through a complete cycle to determine whether the required 99% capture rate (during the initial filling period the capture rate is required to be at least 80%) is being attained;
- g. during the entire emissions test, Method 9 visible emissions observations shall be conducted on the opacity of the visible emissions from the stack(s) servicing this emissions unit. These readings will be conducted to determine compliance with the 5% opacity limit, as a 6-minute average, for visible emissions from the stack(s) servicing this emissions unit; and,
- h. not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Canton Local Air Agency. 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 Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Canton Local Air Agency 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.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Canton Local Air Agency within 30 days following completion of the test(s).

E. Miscellaneous Requirements (P147)

1. None.

XV. Emissions Unit P148 - Cast-Roll™ Continuous Caster Tundish

A. Operational Restrictions (P148)

1. This emissions unit can be operated under any one of the following four scenarios:
 - a. Scenario No. 1

Leaded steel is being cast in the Cast-Roll™ Caster where the lead is added at the tundish. (The tundish holds the steel just prior to when it is cast into blooms.) In this scenario the emissions from the tundish are vented to a 15,000 ACFM baghouse. In the initial filling stage, at least 80 percent of the emissions shall be captured. During the rest of the time that leaded steel is in the tundish, at least 99 percent of the emissions shall be captured.

b. Scenario No. 2

Leaded steel is being cast in the Cast-Roll™ Caster where the lead is added at the Ladle Inoculation Station (LIS). In this scenario, the emissions from the tundish are vented to a 46,250 ACFM baghouse that also captures the emissions from the ladle. In the initial filling stage, at least 80 percent of the emissions shall be captured. During the rest of the time that leaded steel is in the tundish, at least 99 percent of the emissions shall be captured.

c. Scenario No. 3

Leaded steel is being casted in the Cast-Roll™ Caster where the lead is added at the Vacuum Tank Degasser (VTD). In this scenario, the emissions from the tundish are vented to a 46,250 ACFM baghouse that also captures the emissions from the ladle. In the initial filling stage at least 80 percent of the emissions shall be captured. During the rest of the time that leaded steel is in the tundish, at least 99 percent of the emissions shall be captured.

d. Scenario No. 4

Nonleaded steel is being cast in the Cast-Roll™ Caster. In this scenario, the emissions from the tundish do not have to be captured.

2. The pressure drop across either the 15,000 ACFM baghouse or the 46,250 ACFM baghouse shall be maintained within the range of pressure drop in inches of water (e.g., 2.5 to 5.0) established during the most recent emission test that demonstrated that the emissions unit was in compliance.

3. Either baghouse which is chosen shall have an outlet grain loading of no more than 0.002 gr/DSCF.
4. The tundish shall be modified to minimize or eliminate the entrainment of air and subsequent emissions from the inoculation process. A tundish cover with exhaust ports shall be utilized.
5. This emissions unit was formerly part of emissions unit P125 which was identified as the Cast-Roll™ Continuous Caster.
6. The negative static pressure measured inside the capture ductwork entrances shall be maintained at a level in inches of water of no less than the level established during the most recent emissions test during which observations by a representative of the Canton Local Air Agency established that the capture rate was at least 99%.

B. Monitoring and/or Recordkeeping Requirements (P148)

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a weekly daily basis.
2. The permittee shall properly install, operate, and maintain equipment to monitor the negative static measured inside the capture ductwork entrance in inches of water while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the negative static pressure on a daily basis.

C. Reporting Requirements (P148)

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the negative static pressure measured inside the capture ductwork entrance did not comply with the minimum level specified above.
3. The permittee shall submit required reports in the following manner:
 - a. reports shall be submitted to the Canton Local Air Agency; and,
 - b. except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventative measures which have been or will be taken, shall be submitted to the Canton Local Air Agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 15, April 15, July 15, and October 15 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).

D. Compliance Methods and Testing Requirements (P148)

1. Compliance with the emission limitation(s) of this permit shall be determined in accordance with the following method(s):

a. Emission Limitation

Stack PM/PM₁₀ Lead Inoculation at Tundish
0.002 gr/DSCF and 0.152 lb PM/PM₁₀/hr

Applicable Compliance Method

Emissions testing

b. Emission Limitation

Fugitive PM/PM₁₀ Lead Inoculation at Tundish
0.2 lb PM/PM₁₀/hr

Applicable Compliance Method

Observations of the capture efficiency and monitoring of the negative static pressure.

c. Emission Limitation

Stack Lead Lead Inoculation at Tundish
0.007 lb Pb/hr

Applicable Compliance Method

Emission testing

d. Emission Limitation

Fugitive Lead Lead Inoculation at Tundish
0.168 lb Pb/hr

Applicable Compliance Method

The maximum lead content of the steel is 0.35 percent.

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- e. Emission Limitation

Stack PM/PM₁₀ Lead Inoculation
at LIS or VTD
0.002 gr/DSCF and 0.54 lb/hr

Applicable Compliance Method

Emission testing

- f. Emission Limitation

Stack Lead Lead Inoculation at
LIS or VTD
0.025 lb Pb/hr

Applicable Compliance Method

Emission testing

- g. Emission Limitation

Fugitive Lead Lead Inoculation
at LIS or VTD
0.008 lb Pb/hr

Applicable Compliance Method

Observations of the capture
efficiency and monitoring of the
negative static pressure.

- h. Emission Limitation

Yearly limits

Applicable Compliance Method

The ton-per-year limitations were
developed by multiplying the
lb/hr limitations by 2,561 hrs/yr
(the limit of 300,000 tons of
leaded steel per year) and
dividing by 2,000 lbs/ton.
Therefore, provided compliance is
shown with the hourly
limitations, compliance will also
be shown with the annual
limitation.

i. Emission Limitation

5 percent Opacity Visible
Emissions Limits

Applicable Compliance Method

Method 9, 40 CFR Part 60,
Appendix A

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

a. the emission testing shall be conducted within 6 months after startup of this emissions unit and approximately every 5 years thereafter;

b. the test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity unless otherwise specified or approved by the Canton City Health Department, Air Pollution Control Division (Canton Local Air Agency.)

c. the emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PM utilizing test Method 5, 40 CFR Part 60, Appendix A and for lead utilizing test Method 12, 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. the pressure drop in inches of water across the fabric filter shall be recorded during the emission test. This will be done to establish the range of pressure drop that must be maintained;

e. the negative static pressure in inches of water measured inside the capture ductwork entrance

shall be recorded during the emission test. This will be done to establish the minimum negative static pressure that must be maintained;

- f. a representative from the Canton Local Air Agency will observe the emissions unit during the emissions test to determine whether the required 99% capture rate is being attained;
- g. during the entire emissions test, Method 9 visible emissions observations shall be conducted on the opacity of the visible emissions from the stack(s) servicing this emissions unit. These readings will be conducted to determine compliance with the 5% opacity limit, as a 6-minute average, for visible emissions from the stack(s) servicing this emissions unit; and,
- h. not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Canton Local Air Agency. 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 Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Canton Local Air Agency 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.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Canton Local Air Agency within 30 days following completion of the test(s).

E. Miscellaneous Requirements (P148)

1. None.

XVI. Emissions Unit P149 - Cast-Roll™ LIS

A. Operational Restrictions (P149)

1. The pressure drop across the baghouse shall be maintained within the range of pressure drop in inches of water (e.g., 2.5 to 5.0) established during the most recent emission test that demonstrated that the emissions unit was in compliance.
2. At least 99% of the emissions from this emissions unit shall be captured and vented to a baghouse which has an outlet grain loading of no more than 0.002 gr/DSCF.
3. A ladle cover shall be used at all times to minimize or eliminate visible particulate emissions of fugitive dust during ladle transfer of molten leaded steel from the LIS to the caster.
4. During lead inoculation at the LIS, the ladle will be equipped with a ladle cover with an exhaust port.
5. The negative static pressure measured inside the capture ductwork entrance shall be maintained at a level in inches of

water of no less than the level established during the most recent emissions test during which observations by a representative of the Canton Local Air Agency established that the capture rate was at least 99%.

B. Monitoring and/or Recordkeeping Requirements (P149)

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a weekly daily basis.
2. The permittee shall properly install, operate, and maintain equipment to monitor the negative static pressure measured inside the capture ductwork entrance in inches of water while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the negative static pressure on a daily basis.

C. Reporting Requirements (P149)

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the negative static pressure measured inside the capture ductwork entrance did not comply with the minimum level specified above.

3. The permittee shall submit required reports in the following manner:

- a. reports shall be submitted to the Canton Local Air Agency; and,
- b. except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventative measures which have been or will be taken shall be submitted to the Canton Local Air Agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 15, April 15, July 15, and October 15 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).

D. Compliance Methods and Testing Requirements (P149)

1. Compliance with the emission limitation(s) of this permit shall be determined in accordance with the following method(s):

a. Emission Limitation

Stack PM/PM₁₀
0.002 gr/DSCF and
0.4 lb PM/PM₁₀/hr

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Applicable Compliance Method

Emissions testing

b. Emission Limitation

Fugitive PM/PM₁₀
0.46 lb PM/PM₁₀/hr

Applicable Compliance Method

Observations of capture efficiency and monitoring of the negative static pressure.

c. Emission Limitation

Stack lead
0.092 lb Pb/hr

Applicable Compliance Method

Emission testing

d. Emission Limitation

Fugitive lead
0.383 lb Pb/hr

Applicable Compliance Method

Observations of capture efficiency and monitoring of the negative static pressure.

e. Emission Limitation

Stack PM/PM ₁₀	0.22 ton/yr
Fugitive PM/PM ₁₀	0.26 ton/yr
Stack Lead	0.0517 ton/yr
Fugitive Lead	0.2157 ton/yr

Applicable Compliance Method

The ton-per-year limitations were developed by multiplying the lb/hr limitations by the maximum operating schedule of 1,125 hrs/yr and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown with the annual limitation.

f. Emission Limitation

5 percent Opacity Visible
Emissions Limits

Applicable Compliance Method

Method 9, 40 CFR Part 60,
Appendix A

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. the emission testing shall be conducted within 6 months after startup of this emissions unit and approximately every 5 years thereafter;
 - b. the test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity unless otherwise specified or approved by the Canton City Health Department, Air Pollution Control Division (Canton Local Air Agency);
 - c. the emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PM utilizing test Method 5, 40 CFR Part 60, Appendix A and for lead utilizing test Method 12, 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA;
 - d. the pressure drop in inches of water across the fabric filter shall be recorded during the emission test. This will be done to establish the range of pressure drop that must be maintained;
 - e. the negative static pressure in inches of water measured inside the capture ductwork entrance

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shall be recorded during the emission test. This will be done to establish the minimum negative static pressure that must be maintained.

- f. a representative from the Canton Local Air Agency will observe the emissions unit during the emissions test to determine whether the required 99% capture rate is being attained;
- g. during the entire emissions test, Method 9 visible emissions observations shall be conducted on the opacity of the visible emissions from the stack(s) servicing this emissions unit. These readings will be conducted to determine compliance with the 5% opacity limit, as a 6-minute average, for visible emissions from the stack(s) servicing this emissions unit; and,
- h. not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Canton Local Air Agency. 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 Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Canton Local Air Agency 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.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Canton Local Air Agency within 30 days following completion of the test(s).

E. Miscellaneous Requirements (P149)

1. None.

XVII. Emissions Unit P150 - 10 MMBtu/hr Natural Gas Fired Tundish Preheater No. 1 Cast-Roll™ Caster
Emissions Unit P151 - 10 MMBtu/hr Natural Gas Fired Tundish Preheater No. 2 Cast-Roll™ Caster

A. Operational Restrictions (P150, P151)

1. The only fuel to be burned in this emissions unit shall be natural gas.
2. This emissions unit shall be equipped with low NO_x burners rated at 0.089 lb NO_x/MMBtu or better.
3. This emissions unit was formerly part of emissions unit P125 which was identified as the Cast-Roll™ Continuous Caster Area with torch cutter and tundish preheater/dryer operation. Permit to Install 15-1093 limited the amount of natural gas which could be used in this emissions unit to no more than 160 MMCF per consecutive 365-calendar day period rolled on a daily basis. This permit removes the restrictions on the amount of natural gas used. The two Tundish Dryers are each only 6 MMBtu/hr in size and are, therefore, exempt from needing permits. The restrictions on natural gas usage are also removed for these two dryers.

B. Monitoring and/or Recordkeeping Requirements (P150, P151)

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

C. Reporting Requirements (P150, P151)

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit.
2. The permittee shall submit required reports in the following manner:
 - a. reports shall be submitted to the Canton Local Air Agency; and,
 - b. except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventative measures which have been or will be taken, shall be submitted to the Canton Local Air Agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 15, April 15, July 15, and October 15 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).

D. Compliance Methods and Testing Requirements (P150, P151)

1. Compliance with the emission limitation(s) of this permit shall be determined in accordance with the following method(s):

a. Emission Limitation

0.089 lb NO_x/MMBtu, 0.89 lb NO_x/hr

Applicable Compliance Method

Mfg. guarantee

b. Emission Limitation

0.02 lb PM/PM₁₀/hr

Applicable Compliance Method

Emission factor found in AP-42, 3/98 Edition, Table 1.4-1 of 1.9 lbs PM/MMCF converts to 0.02 lb PM/hr.

c. Emission Limitation

0.84 lb CO/hr

Applicable Compliance Method

Emission factor found in AP-42, 3/98 Edition, Table 1.4-1 of 84 lbs CO/MMCF converts to 0.84 lb CO/hr.

d. Emission Limitation

0.055 lb VOC/hr

Applicable Compliance Method

Emission factor found in AP-42, 3/98 Edition, Table 1.4-2 of 5.5 lbs VOC/MMCF converts to 0.055 lbs CO/hr.

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e. Emission Limitation

0.006 lb SO₂/hr

Applicable Compliance Method

Emission factor found in AP-42, 3/98 Edition, Table 1.4-2 of 0.6 lb SO₂/MMCF converts to 0.006 lb SO₂/hr.

f. Emission Limitation

0.09 ton PM-PM₁₀/yr

3.9 tons NO_x/yr

3.64 tons CO/yr

0.24 ton VOC/yr

0.026 ton SO₂/yr

Applicable Compliance Method

The ton-per-year limitations were developed by multiplying the lb/hr limitations by the maximum operating schedule of 8,760 hrs/yr and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown with the annual limitation.

E. Miscellaneous Requirements (P150, P151)

1. None.

XVIII. Emissions Unit P124 (Modification to add lead inoculation)
- Vacuum Tank Degasser

A. Operational Restrictions (P124 mod)

1. No more than 293.1 tons of sulfur shall be added to the molten steel at the VTD per consecutive 365-calendar-day period rolled on a daily basis.
2. The VTD condenser shall operate at a control efficiency of at least 99 percent for PM/PM₁₀ emissions and at least 98 percent for SO₂ emissions.

3. The permittee shall develop a parametric monitoring and recordkeeping plan in order to confirm that the condenser servicing this emissions unit is operating properly. This plan shall be developed prior to the start of lead inoculation in this emissions unit and shall be consistent with the Title V requirements. The monitoring equipment (if necessary) shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

B. Monitoring and/or Recordkeeping Requirements (P124 mod.)

1. The permittee shall perform the appropriate parametric monitoring and recordkeeping as identified in the plan established in Condition A.3.
2. The permittee shall maintain daily records of the following information:
 - a. the sulfur usage rate for each day; and,
 - b. the rolling, 365-day summation of the sulfur usage rates.

C. Reporting Requirements (P124 mod.)

1. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 365-day sulfur usage rate limitation.
2. The permittee shall submit deviation (excursion) reports that identify all violations of the standards established in the plan required by A.3.
3. The permittee shall submit required reports in the following manner:
 - a. reports shall be submitted to the Canton Local Air Agency; and,
 - b. except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations

(excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventative measures which have been or will be taken shall be submitted to the Canton Local Air Agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 15, April 15, July 15, and October 15 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).

D. Compliance Methods and Testing Requirements (P124 mod.)

1. Compliance with the emission limitation(s) of this permit shall be determined in accordance with the following method(s):

a. Emission Limitation

0.47 lb PM/PM₁₀/hr

Applicable Compliance Method

Emissions testing

b. Emission Limitation

Stack Pb 0.086 lb Pb/hr

Applicable Compliance Method

Emissions testing

c. Emission Limitation

Fugitive Pb 0.0431 lb Pb/hr

Applicable Compliance Method

Multiply the emission factor of 0.000144 lb PB/ton times the maximum PWR of 300 tons/hr equals 0.0431 lb/hr.

d. Emission Limitation

3.3 lbs SO₂/hr

Applicable Compliance Method

Tracking of sulfur additions

e. Emission Limitation

0.61 lb CO/hr

Applicable Compliance Method

Emission testing

f. Emission Limitation

0.68 ton PM/PM₁₀/yr

0.87 ton CO/yr

Applicable Compliance Method

The ton-per-year limitations were developed by multiplying the lb/hr limitations by 2,894 hrs/yr (based on the limit of 300,000 tons of leaded steel per year) and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown with the annual limitation.

g. Emission Limitation

Stack Lead 0.0413 ton Pb/yr

Fugitive Lead 0.0216 ton Pb/yr

Applicable Compliance Method

The ton-per-year limitations were developed by multiplying the lb/hr limitations by the maximum operating schedule of 1,000 hrs/yr and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown with the annual limitation.

h. Emission Limitation

4.69 tons SO₂/yr

Applicable Compliance Method

Tracking of sulfur usage

i. Emission Limitation

5 percent Opacity Visible Emissions Limits

Applicable Compliance Method

Method 9, 40 CFR Part 60, Appendix A

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

a. the emission testing shall be conducted within 6 months after the start of lead inoculation in this emissions unit and approximately every 5 years thereafter;

b. the test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity unless otherwise specified or approved by the Canton City Health Department, Air Pollution Control Division (Canton Local Air Agency);

c. the parametric monitoring requirements established above shall be checked during the emissions test;

d. the emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PM, CO, Pb, and SO₂. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA;

e. the following test methods shall be employed to demonstrate compliance with the allowable mass emission rates:

PM	Method 5	40 CFR Part 60, Appendix A
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Pb	Method 12	40 CFR Part 60, Appendix A
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CO	Method 10	40 CFR Part 60, Appendix A
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SO ₂	Method 6	40 CFR Part 60, Appendix A
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f. not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Canton Local Air Agency. 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 Local Air Agency's refusal to accept the results of the emission test(s).

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Personnel from the Canton Local Air Agency 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.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Canton Local Air Agency within 30 days following completion of the test(s).

E. Miscellaneous Requirements (P124 mod.)

1. None.

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(excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventative measures which have been or will be taken, shall be submitted to the Canton Local Air Agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 15, April 15, July 15, and October 15 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).

D. Compliance Methods and Testing Requirements (P134, P135, P136)

1. Compliance with the emission limitation(s) of this permit shall be determined in accordance with the following method(s):

a. Emission Limitation

0.0052 gr/DSCF and 1.45 lbs PM/hr
(Combined limits for P134, P135
and P136)

Applicable Compliance Method

Emissions testing

b. Emission Limitation

0.87 lb PM₁₀/hr (Combined limit
for P134, P135 and P136)

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Applicable Compliance Method

60 percent of PM is PM₁₀ based on USEPA spec dB estimate.

c. Emission Limitation

0.0051 lb Pb/hr (Combined limit for P134, P135 and P136)

Applicable Compliance Method

Emission testing

d. Emission Limitation

6.36 tons PM/yr
3.82 tons PM₁₀/yr
0.022 ton Pb/yr
(Combined limits for P134, P135 & P136)

Applicable Compliance Method

The ton-per-year limitations were developed by multiplying the lb/hr limitations by the maximum operating schedule of 8,760 hrs/yr and dividing by 2,000 lbs/ton.

e. Emission Limitation

5 percent Opacity Visible Emissions Limits

Applicable Compliance Method

Method 9, 40 CFR Part 60, Appendix A

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

a. the emission testing shall be conducted within 6 months after startup of this emissions unit;

b. the test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity unless otherwise

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specified or approved by the Canton City Health Department, Air Pollution Control Division (Canton Local Air Agency);

- c. the emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PM utilizing test Method 5, 40 CFR Part 60, Appendix A and for lead utilizing test Method 12, 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA. If the tested emission rate for PM exceeds the allowable emission rate for PM₁₀ then a determination of how much of the PM was PM₁₀ shall be made to ensure compliance;
- d. the pressure drop across the fabric filter shall be recorded during each emissions test run; and,
- e. not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Canton Local Air Agency. 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 Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Canton Local Air Agency 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

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Canton Local Air Agency within 30 days following completion of the test(s).

E. Miscellaneous Requirements (P134, P135, P136)

1. None.

VII. Emissions Unit P137 - 10 MMBtu/hr Natural Gas Fired
Tundish Preheater No. 1 Vertical Caster
Emissions Unit P138 - 10 MMBtu/hr Natural Gas Fired
Tundish Preheater No. 2 Vertical Caster

A. Operational Restrictions (P137, P138)

1. The only fuel to be burned in this emissions unit shall be natural gas.
2. This emissions unit shall be equipped with low NO_x burners rated at 0.089 lb NO_x/MMBtu or better.

B. Monitoring and/or Recordkeeping Requirements (P137, P138)

1. None.

C. Reporting Requirements (P137, P138)

1. None.

D. Compliance Methods and Testing Requirements (P137, P138)

1. Compliance with the emission limitation(s) of this permit shall be determined in accordance with the following method(s):

a. Emission Limitation

0.089 lb NO_x/MMBtu, 0.89 lb NO_x/hr

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Applicable Compliance Method

Mfg. guarantee

b. Emission Limitation

0.062 lb PM/PM₁₀/hr

Applicable Compliance Method

AP-42 emission factor of 6.2 lbs
PM/MMCF 0.001 MMCF/hr X 6.2 lbs
PM/MMCF = 0.062 lb PM/hr

c. Emission Limitation

0.35 lb CO/hr

Applicable Compliance Method:

AP-42 emission factor of 35 lbs
CO/MMCF 0.001 MMCF/hr X 35 lbs
CO/MMCF = 0.35 lb CO/hr

d. Emission Limitation

0.058 lb VOC/hr

Applicable Compliance Method

AP-42 emission factor 5.8 lbs
VOC/MMCF 0.001 MMCF/hr X 5.8 lbs
VOC/MMCF = 0.058 lb VOC/hr

e. Emission Limitation

0.006 lb SO₂/hr

Applicable Compliance Method

AP-42 emission factor 0.6 lb
SO₂/MMCF 0.001 MMCF/hr X 0.6 lb
SO₂/MMCF = 0.006 lb SO₂/hr

f. Emission Limitation

0.27 ton PM-PM₁₀/yr
3.9 tons NO_x/yr
1.53 tons CO/yr
0.25 ton VOC/yr
0.026 ton SO₂/yr

Applicable Compliance Method

The ton-per-year limitations were developed by multiplying the lb/hr limitations by the maximum operating schedule of 8,760 hrs/yr and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown with the annual limitation.

E. Miscellaneous Requirements (P137, P138)

1. None.

VIII. Emissions Unit P139 - Emergency Generator Bar Mill
Emissions Unit P140 - Emergency Generator Vertical Caster

A. Operational Restrictions (P139, P140)

1. This emissions unit shall not operate more than 500 hours in any calendar year.
2. Natural gas shall be the only fuel used in this emissions unit.

B. Monitoring and/or Recordkeeping Requirement (P139, P140)

1. The permittee shall maintain monthly records of the operating hours of this emissions unit.

C. Reporting Requirements (P139, P140)

1. By February 15 of each year, the permittee shall submit an annual report which identifies any exceedances of the 500 hr/yr operating limit during the previous calendar year. This report shall be submitted to the Canton City Health Department, Air Pollution Control Division, 420 Market Avenue N., Canton Ohio 44702.

D. Compliance Methods and Testing Requirements (P139, P140)

1. Compliance with the emission limitation(s) of this permit shall be determined in accordance with the following method(s):

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a. Emission Limitation

7.99 lbs NO_x/hr

Applicable Compliance Method

The emission factor from USEPA FIRE dB SCC 20200202 for natural gas int. comb. eng. is 2,840 lbs NO_x/MMCF. 2,840 lbs NO_x/MMCF X 0.0028 MMCF/hr = 7.95 lbs NO_x/hr

b. Emission Limitation

1.12 lbs CO/hr

Applicable Compliance Method

The emission factor from USEPA FIRE dB SCC 20200202 for natural gas int. comb. eng is 399 lbs CO/MMCF. 399 lbs CO/MMCF X 0.0028 MMCF/hr = 1.12 lbs CO/hr

c. Emission Limitation

0.028 lb PM/PM₁₀/hr

Applicable Compliance Method

The emission factor from USEPA FIRE dB SCC 20200202 for natural gas int. comb. eng is 10 lbs PM/MMCF. 10 lbs PM/MMCF X 0.0028 MMCF/hr = 0.028 lb PM/hr

d. Emission Limitation

0.33 lb VOC/hr

Applicable Compliance Method:

The emission factor from USEPA FIRE dB scc20200202 for natural gas int. comb. eng. is 116 lbs VOC/MMCF. 116 lbs VOC/MMCF X 0.0028 MMCF/hr = 0.32 lb VOC/hr

e. Emission Limitation

0.0017 lb SO₂/hr

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Applicable Compliance Method

The emission factor from USEPA FIRE dB SCC 20200202 for natural gas int. comb. eng. is 0.6 lb SO₂/MMCF. 0.6 lb₂ SO /MMCF X 0.0028 MMCF/hr = 0.0017 lb SO₂/hr

f. Emission Limitation

0.007 ton PM/PM₁₀/yr
1.99 tons NO_x/yr
0.28 ton CO/yr
0.08 ton VOC/yr
0.0004 ton SO₂/yr

Applicable Compliance Method

The ton-per-year limitations were developed by multiplying the lb/hr limitations by the maximum operating schedule of 200 hrs/yr, and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown with the annual limitations.

g. Emission Limitation

5 percent Opacity Visible Emissions Limits

Applicable Compliance Method

Method 9, 40 CFR Part 60, Appendix A

h. Emission Limitation

500 hours/yr of operation

Applicable Compliance Method

Monthly recordkeeping

E. Miscellaneous Requirements (P139, P140)

1. None.

IX. Emissions Unit P141 - Vertical Caster Torch Cutoff

A. Operational Restrictions (P141)

1. The pressure drop across the baghouse shall be maintained within the range of pressure drop in inches of water (e.g., 2.5 to 5.0) established during the most recent emission test that demonstrated that the emissions unit was in compliance.
2. A fume collection system shall be installed to minimize or eliminate visible particulate emissions of fugitive dust. When leaded steel is being cut at least 99 percent of the emissions from this emissions unit shall be captured, and vented to a baghouse. This baghouse shall have an outlet grain loading of no more than 0.002 gr/DSCF.
3. The facility limit of 300,000 tons/yr of leaded steels effectively limits the operation of this emissions unit to no more than 3,000 hours/year.

B. Monitoring and/or Recordkeeping Requirements (P141)

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while leaded steel is being cut in this emissions unit. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a weekly basis.

C. Reporting Requirements (P141)

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit quarterly reports that identify the amount of steel (in tons) processed in this emissions

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unit that had a lead content of above 0.35 percent.

3. The permittee shall submit required reports in the following manner:

a. reports shall be submitted to the Canton Local Air Agency; and,

b. except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventative measures which have been or will be taken, shall be submitted to the Canton Local Air Agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 15, April 15, July 15, and October 15 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).

D. Compliance Methods and Testing Requirements (P141)

1. Compliance with the emission limitation(s) of this permit shall be determined in accordance with the following method(s):

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a. Emission Limitation

When cutting leaded steel
0.002 gr/DSCF and 0.51 lb
PM/PM₁₀/hr

Applicable Compliance Method

Emissions testing

b. Emission Limitation

0.026 lb Pb/hr

Applicable Compliance Method

By limiting the lead content of steel to no more than 0.35 percent.

c. Emission Limitation

Pb 0.039 ton/yr

Applicable Compliance Method

The ton-per-year limitations were developed by multiplying the lb/hr limitations by the maximum operating schedule of 3,000 hrs/yr and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown with the annual limitation.

d. Emission Limitation

When cutting nonleaded steels
PM/PM₁₀ 0.78 lb/hr

Applicable Compliance Method

An emission factor developed by Kobe Steel is 0.0264 lb/ton. Maximum PWR is 117 tons/hr times 0.0264 lb/ton equals 3.1 lbs/hr. A building capture efficiency of 75 percent results in an emission rate of 0.78 lb/hr.

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e. Emission Limitation

PM/PM₁₀ 3.4 tons/year

Applicable Compliance Method

8,760 hrs/year times 0.78 lb/hr equals 3.4 tons/year.

f. Emission Limitation

5 percent Opacity Visible Emissions Limits

Applicable Compliance Method

Method 9, 40 CFR Part, 60, Appendix A

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. the emission testing shall be conducted within 6 months after startup of this emissions unit;
 - b. the test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity unless otherwise specified or approved by the Canton City Health Department, Air Pollution Control Division (Canton Local Air Agency);
 - c. the emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PM utilizing test Method 5, 40 CFR Part 60, Appendix A and for lead utilizing test Method 12, 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA;
 - d. the pressure drop across the fabric filter shall be recorded during each emissions test run; and,

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- e. not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Canton Local Air Agency. 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 Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Canton Local Air Agency 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.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Canton Local Air Agency within 30 days following completion of the test(s).

E. Miscellaneous Requirements (P141)

- 1. None.

X. Emissions Unit P142 - Shot Blaster

A. Operational Restrictions (P142)

- 1. The pressure drop across the baghouse shall be maintained within the range of pressure drop in inches of water (e.g.,

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2.5 to 5.0) established during the most recent emission test that demonstrated that the emissions unit was in compliance.

2. At least 99 percent of the emissions from this emissions unit shall be captured and vented to a baghouse. This baghouse shall have an outlet grain loading of no more than 0.0052 gr/DSCF.

B. Monitoring and/or Recordkeeping Requirements (P142)

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a weekly basis.

C. Reporting Requirements (P142)

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit required reports in the following manner:
 - a. reports shall be submitted to the Canton Local Air Agency; and,
 - b. except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing monitoring, and recordkeeping requirements specified in this permit, (b) the

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probable cause of such deviations, and (c) any corrective actions or preventative measures which have been or will be taken shall be submitted to the Canton Local Air Agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 15, April 15, July 15, and October 15 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).

D. Compliance Methods and Testing Requirements (P142)

1. Compliance with the emission limitation(s) of this permit shall be determined in accordance with the following method(s):

a. Emission Limitation

0.0052 gr/DSCF and 0.76 lb PM

Applicable Compliance Method

Emissions testing

b. Emission Limitation

0.46 lb PM₁₀/hr

Applicable Compliance Method

Emissions testing

c. Emission Limitation

0.003 lb Pb/hr

Applicable Compliance Method

Emission testing

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d. Emission Limitation

PM 3.32 tons/yr
PM₁₀ 1.99 tons/yr
Pb 0.013 ton/yr

Applicable Compliance Method

The ton-per-year limitations were developed by multiplying the lb/hr limitations by the maximum operating schedule of 8,760 hrs/yr and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown with the annual limitation.

e. Emission Limitation

5 percent Opacity Visible
Emissions Limits

Applicable Compliance Method

Method 9, 40 CFR Part 60,
Appendix A

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

- a. the emission testing shall be conducted within 6 months after startup of this emissions unit;
- b. the test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity unless otherwise specified or approved by the Canton City Health Department, Air Pollution Control Division (Canton Local Air Agency);
- c. the emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PM utilizing test Method 5, 40 CFR Part 60, Appendix A and for lead utilizing test Method 12, 40 CFR

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Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA. If the tested emission rate for PM exceeds the allowable emission rate for PM₁₀, then a determination of how much of the PM was PM₁₀ shall be made to ensure compliance;

- d. the pressure drop across the fabric filter shall be recorded during each emissions test run; and,
- e. not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Canton Local Air Agency. 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 Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Canton Local Air Agency 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.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the

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Canton Local Air Agency within 30 days following completion of the test(s).

E. Miscellaneous Requirements (P142)

1. None.

XI. Emissions Unit P143 - Cast Roll Hot Saw #1
Emissions Unit P144 - Cast Roll Hot Saw #2

A. Operational Restrictions (P143, P144)

1. The pressure drop across the baghouse shall be maintained within the range of pressure drop in inches of water (e.g., 2.5 to 5.0) established during the, most recent emission test that demonstrated that the emissions unit was in compliance.
2. All of the emissions from this emissions unit shall be captured and vented to a baghouse which has an outlet grain loading of no more than 0.0052 gr/DSCF.

B. Monitoring and/or Recordkeeping Requirements (P143, P144)

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a weekly basis.

C. Reporting Requirements (P143, P144)

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit required reports in the following manner:

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a. reports shall be submitted to the Canton Local Air Agency; and,

b. except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventative measures which have been or will be taken, shall be submitted to the Canton Local Air Agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 15, April 15, July 15, and October 15 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).

D. Compliance Methods and Testing Requirements (P143, P144)

1. Compliance with the emission limitation(s) of this permit shall be determined in accordance with the following method(s):

a. Emission Limitation

0.0052 gr/DSCF and 0.97 lb PM/hr
(Combined Limit for P143 and P144)

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Applicable Compliance Method

Emissions testing

b. Emission Limitation

0.58 lb PM₁₀/hr (Combined Limit for P143 and P144)

Applicable Compliance Method

60 percent of PM is PM₁₀ based on USEPA spaced dB estimate.

c. Emission Limitation

0.0034 lb Pb/hr (Combined Limit for P143 and P144)

Applicable Compliance Method

Emission testing

d. Emission Limitation (Combined Limits for P143 and P144)

4.24 tons PM/yr
2.54 tons PM₁₀/yr
0.015 ton Pb/yr

Applicable Compliance Method

The ton-per-year limitations were developed by multiplying the lb/hr limitations by the maximum operating schedule of 8,760 hrs/yr and dividing by 2,000 lbs/ton.

e. Emission Limitation

5 percent Opacity Visible Emissions Limits

Applicable Compliance Method

Method 9, 40 CFR Part 60, Appendix A

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

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- a. the emission testing shall be conducted within 6 months after startup of this emissions unit;
- b. the test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity unless otherwise specified or approved by the Canton City Health Department, Air Pollution Control Division (Canton Local Air Agency);
- c. the emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PM utilizing test Method 5, 40 CFR Part 60, Appendix A and for lead utilizing test Method 12, 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA. If the tested PM emission rate exceeds the allowable emission rate for PM₁₀, a determination shall be made of how much of the PM is PM₁₀ in order to show compliance with the PM₁₀ limit;
- d. the pressure drop across the fabric filter shall be recorded during each emissions test run; and,
- e. not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Canton Local Air Agency. 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 Local Air Agency's refusal to

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accept the results of the emission test(s).

Personnel from the Canton Local Air Agency 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.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Canton Local Air Agency within 30 days following completion of the test(s).

E. Miscellaneous Requirements (P143, P144)

1. None.

XII. Emissions Unit P145 - Cast-Roll™ Continuous Caster Torch Cut-Off

A. Operational Restrictions (P145)

1. When leaded steels are being cut by the torch cutters, high-pressure water sprays shall be employed to control particulate emissions. These water sprays shall have a minimum control efficiency for both particulate matter and lead emissions of 90 percent.
2. The facility limit of 300,000 tons/yr of leaded steels effectively limits the operation of this emissions unit to no more than 2,875 hours/year.
3. This emissions unit was formerly part of emission unit P125 which was identified as the Cast-Roll™ Continuous Caster.

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B. Monitoring and/or Recordkeeping Requirements (P145)

1. Monthly records shall be maintained showing the amount of leaded steel produced by the Cast-Roll™ Continuous Caster.

C. Reporting Requirements (P145)

1. None.

D. Compliance Methods and Testing Requirements (P145)

1. Compliance with the emission limitation(s) of this permit shall be determined in accordance with the following method(s):

a. Emission Limitation

When Cutting leaded Steel
PM/PM₁₀ 0.31 lb/hr

Applicable Compliance Method

Multiply Kobe Steel emission factor of 0.0264 lbs PM-PM₁₀/ton times the maximum PWR of 117 tons/hr equals 3.1 lbs/hr times 0.1 (90 percent control eff. water sprays).

b. Emission Limitation

When cutting leaded steel
Pb 0.016 lb/hr

Applicable Compliance Method

5 percent of dust collected from cutting leaded steel is lead.

c. Emission Limitation

When cutting nonleaded steel

PM/PM₁₀ 0.78 lb/hour

Applicable Compliance Method

Multiply the Kobe steel emission factor for torches of 0.0264 lb/ton times the maximum PWR of 117 tons/hr equals 3.1 lbs/hr

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times 0.25 (75 percent control efficiency for building).

d. Emission Limitation

PM/PM₁₀ 3.4 tons/year

Applicable Compliance Method

Multiply hourly emission limit of 0.78 lb/hr times 8,760 hours/year and divide by 2,000 to get 3.4 tons/yr.

e. Emission Limitation

0.023 ton Pb/yr

Applicable Compliance Method

Multiply the hourly emission limit of 0.016 lb/hr times the maximum yearly operating hours of 2,875.

E. Miscellaneous Requirements (P145)

1. None.

XIII. Emissions Unit P146 - Vertical Caster LIS

A. Operational Restrictions (P146)

1. The pressure drop across the baghouse shall be maintained within the range of pressure drop in inches of water (e.g., 2.5 to 5.0) established during the most recent emission test that demonstrated that the emissions unit was in compliance.
2. All of the emissions from this emissions unit shall be captured and vented to a baghouse which has an outlet grain loading of no more than 0.002 gr/DSCF.
3. The facility limit of 300,000 tons/yr of leaded steels effectively limits the operation of this emissions unit to no more than 1,100 hours/year.
4. A ladle cover shall be used at all times to minimize or eliminate visible particulate emissions of fugitive dust

during ladle transfer of molten leaded steel from the LIS to the caster.

5. During lead inoculation at the LIS the ladle will be equipped with a ladle cover with an exhaust port.

B. Monitoring and/or Recordkeeping Requirements (P146)

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a weekly basis.

C. Reporting Requirements (P146)

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit required reports in the following manner:
 - a. reports shall be submitted to the Canton Local Air Agency; and,
 - b. except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or

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preventative measures which have been or will be taken shall be submitted to the Canton Local Air Agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 15, April 15, July 15, and October 15 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).

D. Compliance Methods and Testing Requirements (P146)

1. Compliance with the emission limitation(s) of this permit shall be determined in accordance with the following method(s):

a. Emission Limitation

PM/PM₁₀ Stack
0.002 gr/DSCF and 0.4 lb/hr

Applicable Compliance Method

Emissions testing

b. Emission Limitation

PM/PM₁₀ Fugitive
0.47 lb/hr

Applicable Compliance Method

60 percent of PM is PM₁₀ based on USEPA speced dB estimate.

c. Emission Limitation

Lead Stack
0.092 lb Pb/hr

Applicable Compliance Method

Emission testing

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d. Emission Limitation

Lead Fugitive
0.393 lb/hr

e. Emission Limitation

PM/PM ₁₀ Stack	0.22 ton/yr
PM/PM ₁₀ Fugitive	0.26 ton/yr
Lead Stack	0.0505 ton/yr
Lead Fugitive	0.2157 ton/yr

Applicable Compliance Method

The ton-per-year limitations were developed by multiplying the lb/hr limitations by the maximum operating schedule of 1,100 hrs/yr and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown with the annual limitation.

f. Emission Limitation

5 percent Opacity Visible
Emissions Limits

Applicable Compliance Method

Method 9, 40 CFR Part 60,
Appendix A

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

- a. the emission testing shall be conducted within 6 months after startup of this emissions unit;
- b. the test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity unless otherwise specified or approved by the Canton City Health Department, Air Pollution Control Division (Canton Local Air Agency);

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- c. the emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PM utilizing test Method 5, 40 CFR Part 60, Appendix A and for lead utilizing test Method 12, 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA. If the tested PM emission rate exceeds the allowable emission rate for PM₁₀, a determination shall be made of how much of the PM is PM₁₀ in order to show compliance with the PM₁₀ limit;
- d. the pressure drop across the fabric filter shall be recorded during each emissions test run; and,
- e. not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Canton Local Air Agency. 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 Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Canton Local Air Agency 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

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the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Canton Local Air Agency within 30 days following completion of the test(s).

E. Miscellaneous Requirements (P146)

1. None.

XIV. Emissions Unit P147 - Vertical Caster Tundish

A. Operational Restrictions (P147)

1. This emissions unit can be operated under anyone of the following three scenarios:

- a. Scenario No. 1

Leaded steel is being cast in the Vertical Caster where the lead is added at the tundish (The tundish holds the steel just prior to when it is cast into blooms.) Under Scenario No. 1 emissions from the tundish shall be captured and vented to a 15,000 ACFM baghouse dedicated solely to the tundish. The capture efficiency to the baghouse shall be a minimum of 99 percent except during the initial filling period when the capture efficiency shall be a minimum of 80 percent).

- b. Scenario No. 2

Leaded steel is being cast in the Vertical Caster where the lead is added at the Ladle Inoculation Station (LIS). (If lead is added at the LIS, the emissions from both the ladle when it is in casting position and from the tundish will be vented to the same 46,250 ACFM baghouse).

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c. Scenario No. 3

Nonleaded steel is being cast in the Vertical Caster.

2. When leaded steel is not being produced, the emissions from neither the tundish nor from the ladle, when it is in the casting position, need to be captured.
3. The pressure drop across either baghouse which is needed shall be maintained within the range of pressure drop in inches of water (e.g., 2.5 to 5.0) established during the most recent emission test that demonstrated that the emissions unit was in compliance.
4. The baghouse selected to service the tundish shall have an outlet grain loading of no more than 0.002 gr/DSCF.
5. The facility limit of 300,000 tons/yr of leaded steels effectively limits the operation of this emissions unit to no more than 2,561 hours/year.
6. The tundish shall be equipped to minimize or eliminate the entrainment of air and subsequent emissions from the inoculation process. A tundish cover with exhaust ports shall be utilized.

B. Monitoring and/or Recordkeeping Requirements (P147)

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a weekly basis.

C. Reporting Requirements (P147)

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time

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during which the pressure drop across the baghouse did not comply with the allowable range specified above.

2. The permittee shall submit required reports in the following manner:

a. reports shall be submitted to the Canton Local Air Agency; and,

b. except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventative measures which have been or will be taken shall be submitted to the Canton Local Air Agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 15, April 15, July 15, and October 15 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).

D. Compliance Methods and Testing Requirements (P147)

1. Compliance with the emission limitation(s) of this permit shall be determined in accordance with the following method(s):

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- a. Emission Limitation

Stack PM/PM₁₀ Lead Inoculation at
Tundish
0.002 gr/DSCF and 0.152 lb PM/hr

Applicable Compliance Method

Emissions testing

- b. Emission Limitation

Fugitive PM/PM₁₀ Lead Inoculation
at Tundish
0.2 lb PM₁₀/hr

Applicable Compliance Method

Engineering judgement

- c. Emission Limitation

Stack Lead Lead Inoculation at
Tundish
0.007 lb Pb/hr

Applicable Compliance Method

Emission testing

- d. Emission Limitation

Fugitive Lead Lead Inoculation
at Tundish
0.168 lb Pb/hr

Applicable Compliance Method

The maximum lead content of the
steel is 0.35 percent.

- e. Emission Limitation

Stack PM/PM₁₀ Lead Inoculation
at LIS
0.002 gr/DSCF and 0.54 lb/hr

Applicable Compliance Method

Emission testing

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- f. Emission Limitation

Stack Lead Lead Inoculation at
LIS
0.025 lb/hr

Applicable Compliance Method

Emission testing

- g. Emission Limitation

Fugitive Lead Lead Inoculation
at LIS
0.008 lb/hr

Applicable Compliance Method

Engineering judgement

- h. Emission Limitation

Yearly limits

Applicable Compliance Method

The ton-per-year limitations were developed by multiplying the lb/hr limitations by the maximum operating schedule of 2,561 hrs/yr, and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown with the annual limitation.

- i. Emission Limitation

5 percent Opacity Visible
Emissions Limits

Applicable Compliance Method

Method 9, 40 CFR Part 60,
Appendix A

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

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- a. the emission testing shall be conducted within 6 months after startup of this emissions unit;
- b. the test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity unless otherwise specified or approved by the Canton City Health Department, Air Pollution Control Division (Canton Local Air Agency);
- c. the emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for, PM utilizing test Method 5, 40 CFR Part 60, Appendix A and for lead utilizing test Method 12, 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA;
- d. the pressure drop across the fabric filter shall be recorded during each emissions test run; and,
- e. not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Canton Local Air Agency. 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 Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Canton Local Air Agency shall be permitted to witness the test(s), examine the testing equipment, and acquire

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data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Canton Local Air Agency within 30 days following completion of the test(s).

E. Miscellaneous Requirements (P147)

1. None.

XV. Emissions Unit P148 - Cast-Roll™ Continuous Caster Tundish

A. Operational Restrictions (P148)

1. This emissions unit can be operated under any one of the following four scenarios:

- a. Scenario No. 1

Leaded steel is being cast in the Cast-Roll™ Caster where the lead is added at the tundish. (The tundish holds the steel just prior to when it is cast into blooms.) In this scenario the emissions from the tundish are vented to a 15,000 ACFM baghouse. In the initial filling stage, at least 80 percent of the emissions shall be captured. During the rest of the time that leaded steel is in the tundish, at least 99 percent of the emissions shall be captured.

- b. Scenario No. 2

Leaded steel is being cast in the Cast-Roll™ Caster where the lead is added at the Ladle Inoculation Station (LIS). In this scenario, the emissions from the tundish

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are vented to a 46,250 baghouse that also captures the emissions from the ladle. In the initial filling stage, at least 80 percent of the emissions shall be captured. During the rest of the time that leaded steel is in the tundish, at least 99 percent of the emissions shall be captured.

c. Scenario No. 3

Leaded steel is being casted in the Cast-Roll™ Caster where the lead is added at the Vacuum Tank Degasser (VTD). In this scenario the emissions from the tundish are vented to a 46,250 baghouse that also captures the emissions from the ladle. In the initial filling stage at least 80 percent of the emissions shall be captured. During the rest of the time that leaded steel is in the tundish at least 99 percent of the emissions shall be captured.

d. Scenario No. 4

Nonleaded steel is being cast in the Cast-Roll™ Caster. In this scenario, the emissions from the tundish do not have to be captured.

2. The pressure drop across either the 15,000 ACFM baghouse or the 46,250 baghouse shall be maintained within the range of pressure drop in inches of water (e.g., 2.5 to 5.0) established during the most recent emission test that demonstrated that the emissions unit was in compliance.
3. Either baghouse which is chosen shall have an outlet grain loading of no more than 0.002 gr/DSCF.
4. The facility limit of 300,000 tons/yr of leaded steels effectively limits the operation of this emissions unit to no more than 2,561 hours/year.
5. The tundish shall be modified to minimize or eliminate the entrainment of air and

subsequent emissions from the inoculation process. A tundish cover with exhaust ports shall be utilized.

6. This emissions unit was formerly part of emission unit P125 which was identified as the Cast-Roll™ Continuous Caster.

B. Monitoring and/or Recordkeeping Requirements (P148)

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a weekly basis.

C. Reporting Requirements (P148)

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit required reports in the following manner:
 - a. reports shall be submitted to the Canton Local Air Agency; and,
 - b. except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any

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corrective actions or preventative measures which have been or will be taken, shall be submitted to the Canton Local Air Agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 15, April 15, July 15, and October 15 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).

D. Compliance Methods and Testing Requirements (P148)

1. Compliance with the emission limitation(s) of this permit shall be determined in accordance with the following method(s):

a. Emission Limitation

Stack PM/PM₁₀ Lead Inoculation at Tundish
0.002 gr/DSCF and 0.152 lb PM/hr

Applicable Compliance Method

Emissions testing

b. Emission Limitation

Fugitive PM/PM₁₀ Lead Inoculation at Tundish
0.2 lb/hr

Applicable Compliance Method

Engineering judgement

c. Emission Limitation

Stack Lead Lead Inoculation at Tundish
0.007 lb Pb/hr

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Applicable Compliance Method

Emission testing

d. Emission Limitation

Fugitive Lead Lead Inoculation
at Tundish
0.168 lb Pb/hr

Applicable Compliance Method

The maximum lead content of the
steel is 0.35 percent.

e. Emission Limitation

Stack PM/PM₁₀ Lead Inoculation
at LIS or VTD
0.002 gr/DSCF and 0.54 lb/hr

Applicable Compliance Method

Emission testing

f. Emission Limitation

Stack Lead Lead Inoculation at
LIS or VTD
0.025 lb/hr

Applicable Compliance Method

Emission testing

g. Emission Limitation

Fugitive Lead Lead Inoculation
at LIS or VTD
0.008 lb/hr

Applicable Compliance Method

Engineering judgement

h. Emission Limitation

Yearly limits

Applicable Compliance Method

The ton-per-year limitations were
developed by multiplying the
lb/hr limitations by the maximum

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operating schedule of 2,561 hrs/yr and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown with the annual limitation.

i. Emission Limitation

5 percent Opacity Visible Emissions Limits

Applicable Compliance Method

Method 9, 40 CFR Part 60, Appendix A

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 6 months after startup of this emissions unit.
 - b. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity unless otherwise specified or approved by the Canton City Health Department, Air Pollution Control Division (Canton Local Air Agency.)
 - c. The emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PM utilizing test Method 5, 40 CFR Part 60, Appendix A and for lead utilizing test Method 12, 40 CFR Part 60, Appendix A.. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - d. The pressure drop across the fabric filter shall be recorded during each emissions test run.

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- e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Canton Local Air Agency. 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 Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Canton Local Air Agency 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.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Canton Local Air Agency within 30 days following completion of the test(s).

E. Miscellaneous Requirements (P148)

1. None.

XVI. Emissions Unit P149 - Cast-Roll™ LIS

A. Operational Restrictions (P149)

1. The pressure drop across the baghouse shall be maintained within the range of pressure drop in inches of water (e.g.,

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2.5 to 5.0) established during the most recent emission test that demonstrated that the emissions unit was in compliance.

2. All of the emissions from this emissions unit shall be captured and vented to a baghouse which has an outlet grain loading of no more than 0.002 gr/DSCF.
3. The facility limit of 300,000 tons/yr of leaded steels effectively limits the operation of this emissions unit to no more than 1,125 hours/year.
4. A ladle cover shall be used at all times to minimize or eliminate visible particulate emissions of fugitive, dust during ladle transfer of molten leaded steel from the LIS to the caster.
5. During lead inoculation at the LIS the ladle will be equipped with a ladle cover with an exhaust port.

B. Monitoring and/or Recordkeeping Requirements (P149)

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a weekly basis.

C. Reporting Requirements (P149)

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit required reports in the following manner:
 - a. reports shall be submitted to the Canton Local Air Agency; and,

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- b. except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventative measures which have been or will be taken shall be submitted to the Canton Local Air Agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 15, April 15, July 15, and October 15 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).

D. Compliance Methods and Testing Requirements (P149)

1. Compliance with the emission limitation(s) of this permit shall be determined in accordance with the following method(s):

- a. Emission Limitation

Stack PM/PM₁₀
0.002 gr/DSCF and 0.4 lb/hr

Applicable Compliance Method

Emissions testing

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b. Emission Limitation

Fugitive PM/PM₁₀
0.46 lb/hr

Applicable Compliance Method

Engineering judgement

c. Emission Limitation

Stack lead
0.092 lb/hr

Applicable Compliance Method

Emission testing

d. Emission Limitation

Fugitive lead
0.383 lb/hr

Applicable Compliance Method

Engineering judgement

e. Emission Limitation

Stack PM/PM ₁₀	0.22 ton/yr
Fugitive PM/PM ₁₀	0.26 ton/yr
Stack Lead	0.0517 ton/yr
Fugitive Lead	0.2157 ton/yr

Applicable Compliance Method

The ton-per-year limitations were developed by multiplying the lb/hr limitations by the maximum operating schedule of 1,125 hrs/yr and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown with the annual limitation.

f. Emission Limitation

5 percent Opacity Visible
Emissions Limits

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Applicable Compliance Method

Method 9, 40 CFR Part 60,
Appendix A

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. the emission testing shall be conducted within 6 months after startup of this emissions unit;
 - b. the test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity unless otherwise specified or approved by the Canton City Health Department, Air Pollution Control Division (Canton Local Air Agency);
 - c. the emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PM utilizing test Method 5, 40 CFR Part 60, Appendix A and for lead utilizing test Method 12, 40 CFR Part 60, Appendix A.. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA. If the tested PM emission rate exceeds the allowable emission rate for PM₁₀, a determination shall be made of how much of the PM is PM₁₀ in order to show compliance with the PM₁₀ limit;
 - d. the pressure drop across the fabric filter shall be recorded during each emissions test run; and,
 - e. not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Canton Local Air Agency. The "Intent to Test" notification shall describe in detail the proposed test methods and

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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 Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Canton Local Air Agency 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.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Canton Local Air Agency within 30 days following completion of the test(s).

E. Miscellaneous Requirements (P149)

1. None.

XVII. Emissions Unit P150 - 10 MMBtu/hr Natural Gas Fired
Tundish Preheater No. 1 Cast-Roll™ Caster
Emissions Unit P151 - 10 MMBtu/hr Natural Gas Fired
Tundish Preheater No. 2 Cast-Roll™ Caster

A. Operational Restrictions (P150, P151)

1. The only fuel to be burned in this emissions unit shall be natural gas.
2. This emissions unit shall be equipped with low NO_x burners rated at 0.089 lb NO_x/MMBtu or better.
3. This emissions unit was formerly part of emissions unit P125 which was identified

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as the Cast-Roll™ Continuous Caster Area with torch cutter and tundish preheater/dryer operation. Permit to Install 15-1093 limited the amount of natural gas which could be used in this emissions unit to no more than 160 MMCF per consecutive 365-calendar day period rolled on a daily basis. This permit removes the restrictions on the amount of natural gas used. The two Tundish Dryers are each only 6 MMBtu/hr in size and are therefore exempt from needing permits. The restrictions on natural gas usage are also removed for these two dryers.

B. Monitoring and/or Recordkeeping Requirements (P150, P151)

1. None.

C. Reporting Requirements (P150, P151)

1. None.

D. Compliance Methods and Testing Requirements (P150, P151)

1. Compliance with the emission limitation(s) of this permit shall be determined in accordance with the following method(s):

a. Emission Limitation

0.089 lb NO_x/MMBtu, 0.89 lb NO_x/hr

Applicable Compliance Method

Mfg. guarantee

b. Emission Limitation

0.062 lb PM/PM₁₀/hr

Applicable Compliance Method

AP-42 emission factor of 6.2 lbs PM/MMCF 0.001 MMCF/hr X 6.2 lb PM/MMCF = 0.062 lb PM/hr

c. Emission Limitation

0.35 lb CO/hr

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Applicable Compliance Method:

AP-42 emission factor of 35 lbs
CO/MMCF 0.001 MMCF/hr X 35 lbs
CO/MMCF = 0.35 lb CO/hr

d. Emission Limitation

0.058 lb VOC/hr

Applicable Compliance Method

AP-42 emission factor 5.8 lbs
VOC/MMCF 0.001 MMCF/hr X 5.8 lbs
VOC/MMCF = 0.058 lb VOC/hr

e. Emission Limitation

0.006 lb SO₂/hr

Applicable Compliance Method

AP-42 emission factor 0.6 lb
SO₂/MMCF 0.001 MMCF/hr X 0.6 lb
SO₂/MMCF = 0.006 lb SO₂/hr

f. Emission Limitation

0.27 ton PM-PM¹⁰/yr
3.9 tons NO_x/yr
1.53 tons CO/yr
0.25 ton VOC/yr
0.026 ton SO₂/yr

Applicable Compliance Method

The ton-per-year limitations were developed by multiplying the lb/hr limitations by the maximum operating schedule of 8,760 hrs/yr and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown with the annual limitation.

E. Miscellaneous Requirements (P150, P151)

1. None.

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XVIII. Emissions Unit P124 (Modification to add lead inoculation)
- Vacuum Tank Degasser

A. Operational Restrictions (P124 mod)

1. No more than 293.1 tons of sulfur shall be added to the molten steel at the VTD per consecutive 365-calendar-day period rolled on a daily basis.
2. The VTD condenser shall operate at a control efficiency of at least 99 percent for PM/PM₁₀ emissions and at 98 percent for SO₂ emissions.
3. The permittee shall develop a parametric monitoring and recordkeeping plan in order to confirm that the condenser servicing this emissions unit is operating properly. This plan shall be developed prior to the start of lead inoculation in this emissions unit and shall be consistent with the Title V requirements. The monitoring equipment (if necessary) shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

B. Monitoring and/or Recordkeeping Requirements (P124 mod.)

1. The permittee shall perform the appropriate parametric monitoring and recordkeeping as identified in the plan established in Condition A.3.
2. The permittee shall maintain daily records of the following information:
 - a. the sulfur usage rate for each day; and,
 - b. the rolling, 365-day summation of the sulfur usage rates.

C. Reporting Requirements (P124 mod.)

1. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 365-day sulfur usage rate limitation.

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2. The permittee shall submit deviation (excursion) reports that identify all violations of the standards established in the plan required by A.3.
3. The permittee shall submit required reports in the following manner:
 - a. reports shall be submitted to the Canton Local Air Agency; and,
 - b. except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventative measures which have been or will be taken shall be submitted to the Canton Local Air Agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 15, April 15, July 15, and October 15 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).

D. Compliance Methods and Testing Requirements (P124 mod.)

1. Compliance with the emission limitation(s) of this permit shall be determined in accordance with the following method(s):

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a. Emission Limitation

0.47 lb PM/hr

Applicable Compliance Method

Emissions testing

b. Emission Limitation

Stack Pb 0.086 lb/hr

Applicable Compliance Method

Emissions testing

c. Emission Limitation

Fugitive Pb 0.0431 lb Pb/hr

Applicable Compliance Method

Multiply the emission factor of 0.000144 lb PB/ton times the maximum PWR of 300 tons/hr equals 0.0432 lb/hr.

d. Emission Limitation

3.3 lbs SO₂/hr

Applicable Compliance Method

Tracking of sulfur additions

e. Emission Limitation

0.61 lb CO/hr

Applicable Compliance Method

Emission testing

f. Emission Limitation

0.68 ton PM/yr

0.87 ton CO/yr

Applicable Compliance Method

The ton-per-year limitations were developed by multiplying the lb/hr limitations by the maximum operating schedule of 2,894

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hrs/yr and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown with the annual limitation.

g. Emission Limitation

Stack Lead 0.0413 ton/yr
Fugitive Lead 0.0216 ton/yr

Applicable Compliance Method

The ton-per-year limitations were developed by multiplying the lb/hr limitations by the maximum operating schedule of 1,000 hrs/yr and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown with the annual limitation.

h. Emission Limitation

4.69 tons SO₂/yr

Applicable Compliance Method

Tracking of sulfur usage

i. Emission Limitation

5 percent Opacity Visible Emissions Limits

Applicable Compliance Method

Method 9, 40 CFR Part 60, Appendix A

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

a. the emission testing shall be conducted within 6 months after the start of lead inoculation in this emissions unit;

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- b. the test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity unless otherwise specified or approved by the Canton City Health Department, Air Pollution Control Division (Canton Local Air Agency);
- c. the parametric monitoring requirements established above shall be checked during the emissions test;
- d. the emissions testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PM, CO, Pb, and SO₂. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA;
- e. the following test methods shall be employed to demonstrate compliance with the allowable mass emission rates:

PM	Method 5	40	CFR Part 60, Appendix A
Pb	Method 12	40	CFR Part 60, Appendix A
CO	Method 10	40	CFR Part 60, Appendix A
SO ₂	Method 6	40	CFR Part 60, Appendix A
- f. not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Canton Local Air Agency. 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

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review and approval prior to the test(s) may result in the Canton Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Canton Local Air Agency 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.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Canton Local Air Agency within 30 days following completion of the test(s).

E. Miscellaneous Requirements (P124 mod.)

1. None.