OhioEPA

State of Ohio Environmental Protection Agency

Street Address:
Lazarus Gov. Center
122 S. Front Street
Columbus, OH 43215

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Lazarus Gov. Center
P.O. Box 1049
Columbus, OH 43216-1049

RECEIVED
DEC 16 2004
CANTON CITY HEALTH DEPT.
AIR POLLUTION DIVISION

RE: FINAL PERMIT TO INSTALL
STARK COUNTY
Application No: 15-01578
Fac ID: 1576050694

DATE: 12/10/2004

CERTIFIED MAIL

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

Republic Engineered Products Inc.
Pat Monnot
2633 Eighth St NW
Canton, OH 44701

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

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

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

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

Sincerely,

Michael W. Ahern

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

CC: USEPA Canton LAA

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

Permit To Install	**Issue Date: 12/10/2004**
Terms and Conditions	**Effective Date: 12/10/2004**

FINAL PERMIT TO INSTALL 15-01578

Application Number: 15-01578

Facility ID: 1576050694

Permit Fee: **$14700**

Name of Facility: Republic Engineered Products Inc.

Person to Contact: Pat Monnot

Address: 2633 Eighth St NW
Canton, OH 44701

Location of proposed air contaminant source(s) [emissions unit(s)]:
2633 Eighth St NE
Canton, Ohio

Description of proposed emissions unit(s):
Continuous Caster and support equipment.

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS

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

1. Monitoring and Related Recordkeeping and Reporting Requirements

a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

i. The date, place (as defined in the permit), and time of sampling or measurements.

ii. The date(s) analyses were performed.

iii. The company or entity that performed the analyses.

iv. The analytical techniques or methods used.

v. The results of such analyses.

vi. The operating conditions existing at the time of sampling or measurement.

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

c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:

i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written reports shall be submitted quarterly, i.e., by January

31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.9 below if no deviations occurred during the quarter.

iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

2. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.
Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

3. Risk Management Plans

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

4. Title IV Provisions

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

5. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or

condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

6. General Requirements

a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.

b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.

c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

d. This permit does not convey any property rights of any sort, or any exclusive privilege.

e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

7. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit To Install fees within 30 days after the issuance of this Permit To Install.

8. Federal and State Enforceability

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

9. Compliance Requirements

a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.

iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.

ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

10. Permit To Operate Application

a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation

of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the source(s) covered by this permit.

11. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

12. Air Pollution Nuisance

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

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

1. Compliance Requirements

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

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

a. Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

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

3. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

4. Termination of Permit To Install

This permit to install shall terminate within eighteen months of the effective date of the permit to install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

5. Construction of New Sources(s)

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

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

6. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

7. Applicability

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

8. Construction Compliance Certification

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

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

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

C. Permit To Install Summary of Allowable Emissions

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

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

Pollutant	Tons Per Year
PE/PM_{10}	11.7
Sulfur Dioxide	22.0
Lead	0.44
Nitrogen Oxides	25.4
Carbon Monoxide	21.6
VOC	1.3

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions

None

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

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
F007 - Tundish Dump Station	OAC rule 3745-31-05(A)(3)	PE/PM_{10} Fugitive emissions shall not exceed 1.94 pounds per hour and 1.32 tons per year
	OAC rule 3745-17-07(B)(1)	Visible particulate opacity fugitive emissions shall not exceed 20 % opacity as a three(3) minute average or otherwise provided by rule.
	OAC rule 3745-17-08	See section A.2.a

2. **Additional Terms and Conditions**

2.a The permittee shall employ reasonably available control measures(RACM) to minimize or eliminate visible particulate emissions of fugitive dust at the point of generation to the extent possible employing good engineering design. Employment of RACM constitutes BAT for this emission unit. RACM shall include, at a minimum, conducting all dumping activities inside a building.

B. Operational Restrictions

1. The permittee shall dump a maximum of 1364 tundish dumps per year. The fugitive emission limitations in section A.I.1.are based on this dump rate as discussed in section II.E.1.b.

C. Monitoring and/or Record keeping Requirements

1. The permittee shall perform weekly checks when the emissions unit is in operation during daylight hours and when the weather conditions allow, for any visible particulate emissions from any non-stack egress points from the building housing this emissions unit(e.g., windows, doors, roof monitors, etc.). This weekly check shall be performed at a time that is representative of the typical

activity of the several operations housed within this building(regardless of whether this specific emission unit is in operation). The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall note the following in the operations log.

a. the color of the emissions;
b. whether the emissions are representative of the normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible fugitive particulate emission incident;
e. any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions; and

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the weekly check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

2. The permittee shall maintain records of the date of each tundish dumped and the total number of tundishes dumped per month.

D. Reporting Requirements

1. The permittee shall submit semiannual written reports that:

   a. identify all periods of time during which visible emissions were observed from any non-stack egress point serving this emissions unit;

   b. describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions; and
   c. the total number of tundish dumps occurring

   These reports shall be submitted to the CCHD, APCD by January 31 and July 31 of each year and shall cover the previous six month period.

2. The permittee shall submit an annual report which identifies the total number of tundishes dumped. This report shall be submitted to the CCHD, APCD by January 31 of each year and shall cover the previous twelve month period.

E. Testing Requirements

1. Compliance with the emission limitations of this permit shall be demonstrated by using the following methods and procedures:

   a. Emission limitation:
   Visible emission limits for fugitive dust from roof vents shall not exceed an average of twenty(20) percent opacity as a three(3)-minute average, unless otherwise specified.

   Applicable compliance method:
   If required, visible emissions shall be determined using 40 CFR, Appendix A, US EPA, Method 9

   b. Emission limitation:
   1.94 lbs per hour PM/PM10
   1.32 tons per year PM/PM_{10}

   Applicable compliance method:
   These emission limitations were developed as follows:

   Based on the information provided in the application, the no. of tundish dumps per year can be calculated as 5455 max. heats per year / 4 heats per tundish = 1364 tundish dumps per year. Each dump takes 15 minutes with a 45 minute lag time between dumps. This means that each dump cycle is 60 minutes. The total dump time possible in a year is 1364 hours. Therefore,

   lbs PM/PM_{10}/hr. = (4300 lbs material /dump) x (0.9 lbs PM/PM-10/ton material dumped) / (2000 lb/ton) = 1.94 lbs/hr.

   tons PM/PM_{10}/year (PTE) = 1.94 lbs/hr. x 1364 hr/yr./2000 = 1.32 tpy(fugitive)

F. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
F007 - Tundish Dump Station	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
F008 - Alloy handling system. This system includes the transfer of bulk aggregate materials between the truck unloading station and the process. This emission unit is controlled by a fabric filter control device.	OAC rule 3745-31-05(A)	See section A.2.a The PE/PM_{10} baghouse stack emissions shall not exceed 0.43 lbs PE/PM_{10} per hour and 0.34 tons PE/PM_{10} per year. See section II.A.2.f. The PE/PM_{10} fugitive emissions shall not exceed 2.26 lbs PE/PM_{10} per hour and 1.8 tons PE/PM_{10} per year. See section II.A.2.f.
	OAC rule 3745-17-07(A)(1)	Baghouse stack visible emissions shall not exceed twenty(20) percent as a six(6) minute average except as provided by rule. See section 2e.
	OAC rule 3745-17-07(B)	See section A.2.e.
	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent thatn the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08	See section A.I.2.b

2. Additional Terms and Conditions

2.a BAT consists of the use of a collection system and fabric filter to control PE/PM_{10} emissions. The emission limitations specified in section A.I.1 are the result of using this control device.

2.b The permittee shall minimize or eliminate visible fugitive emissions through the employment of reasonably available control measures(RACM). These measures shall include, but not be limited to, the installation and use of hoods, fans, and other equipment to adequately enclose, contain, capture, and vent fugitive dust to the baghouse and a collection efficiency that is sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

2.c The collection system shall capture at least 95 % of the emissions from this emissions unit.

2.d The control efficiency of the baghouse servicing this emission unit shall be at least 99 %.

2.e Visible particulate emissions from an non-stack egress point of the building or enclosure serving this e missions unit shall not exceed twenty(20) percent as a six minute average.

2.f The stack and fugitive emission limitations specified in section II.A.1 are based on a maximum aggregate transfer rate of 56 tons/hr. for the entire alloy handling system.

B. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 1 to 9 in inches of water, while the emission unit is in operation. The pressure drop shall not be considered outside the normal range when the pressure drop falls below the minimum point in the pressure drop differential range as the result of bag replacements.

   The permittee shall establish the pressure drop range for baghouse operation that will ensure ongoing compliance during the stack test conducted for this emission unit as specified in section A.V.2.

2. 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 95 %.

C. Monitoring and/or Record keeping Requirements

1. The permittee shall perform weekly checks when the emissions unit is in operation during daylight hours and when the weather conditions allow, for any visible particulate emissions from the baghouse stack and any non-stack egress points from the building housing this emissions unit(e.g.,

windows, doors, roof monitors, etc.). This weekly check shall be performed at a time that is representative of the typical activity of the several operations housed within this building(regardless of whether this specific emission unit is in operation). The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall note the following in the operations log.

a. the color of the emissions;
b. whether the emissions are representative of the normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible fugitive particulate emission incident;
e. any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions; and

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the weekly check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

2. 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 O&M manuals and consistent with good engineering practices. The permittee shall record the pressure drop across the baghouse on a weekly basis.

3. 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, O&M manuals, and good engineering practices. The permittee shall record the negative static pressure on a weekly basis.

D. Reporting Requirements

1. The permittee shall submit semiannual written reports that:

   a. identify all periods of time during which visible emissions were observed from any non-stack egress point serving this emissions unit; and

   b. describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions.

These reports shall be submitted to the CCHD, APCD by January 31 and July 31 of each year and shall cover the previous six month period.

2. The permittee shall submit 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.

3. The permittee shall submit quarterly deviation(excursions) 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.

E. Testing Requirements

1. Compliance with the emission limitations of this permit shall be demonstrated by using the following methods and procedure:

   a. Emission limitation:
   Visible stack emissions from the baghouse shall not exceed an average of twenty(20) percent opacity as a six (6)-minute average, unless otherwise specified.

   Applicable compliance method:
   If required, visible emissions shall be determined using 40 CFR, Appendix A, US EPA, Method 9

   b. Emission limitation:
   Visible fugitive emissions from the building housing this emissions unit shall not exceed an average of twenty(20) percent opacity as a three(3)-minute average, unless otherwise specified.

   Applicable compliance method:
   If required, visible emissions shall be determined using 40 CFR, Appendix A, US EPA, Method 9

   c. Emission limitation:
   The PE/PM_{10} baghouse stack emissions shall not exceed 0.43 lbs PE/PM_{10} per hour and 0.34 tons PE/PM_{10} per year.

   Applicable compliance method:
   Compliance with the hourly emission limitation shall be demonstrated by using US EPA Method 5, Appendix A, 40 CFR Part 60 or an approved alternative method.

   The annual emission limitation was determined as follows:

   Maximum annual uncontrolled PM/PM_{10} emissions for transfer of aggregate between the truck unloading station to the process = ((30,000 tons bulk material transferred per year maximum) x 0.8 lbs PM/PM_{10} emissions/2000) x 3 = 36 tons PM/PM_{10} emissions/year.

Maximum annual PM/PM_{10} stack emissions = (36 tons PM/PM_{10} /year) x (1-0.99) x 0.95 = 0.34 tons PM/PM_{10} /year

Maximum annual PE/PM_{10} fugitive emissions = (36 tons PE/PM_{10} /year) x (1-0.95) = 1.8 tpy

The emission factor of 0.8 lbs PM/PM10 emissions is a RACM emission factor for aggregate dumping. The factor of 3 in the equation represents that the 30,000 tons of aggregate can potentially be transferred, resulting in fugitive emissions, 3 times simultaneously from the truck unloading station to the process.

d. Emission limitation:
The PE/PM_{10} fugitive emissions shall not exceed 2.26 lbs PE/PM_{10} per hour and 1.8 tons PE/PM_{10} per year.

Applicable compliance method:
These emission limitations were developed as follows:

Maximum annual PE/PM_{10} fugitive emissions = (36 tons PE/PM_{10} /year) x (1-0.95) = 1.80 tpy

Maximum hourly PE/PM_{10} fugitive emissions = (56.6 tons material transferred per hour) x (0.8 lbs PE/PM_{10} emissions) x (1-0.95) = 2.26 lbs PE/PM_{10} / hour.

e. Emissions limitation:
The control efficiency of the baghouse servicing this emission unit shall be at least 99 %.

Applicable compliance method:
Compliance shall be demonstrated by using US EPA Method 5, Appendix A, 40 CFR Part 60 or an approved alternative method.

f. Emission limitation:
The collection system shall capture at least 95 % of the emissions from this emissions.

Applicable compliance method:
Compliance shall be demonstrated by observations of the capture efficiency and monitoring of the negative static pressure in the emissions collection ductwork entrance.

2. The permittee shall conduct or have conducted emissions 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 and approved by the Canton local air agency.

c. the emissions testing shall be conducted at the inlet and outlet of the baghouse to demonstrate compliance with the allowable mass emission rate for PE/PM_{10} in pounds per hour from baghouse stack and the control efficiency of the baghouse. The testing shall be conducted utilizing US EPA Method 5(or an approved alternative), 40 CFR Part 60, Appendix A for PM/PM_{10}.

d. the pressure drop across the baghouse, in inches of water, shall be recorded during the emissions test. this will be done to establish the range of pressure drop that must be maintained;

e. during the test method 9 visible emissions observations shall be conducted on the stack servicing this emissions unit. These readings shall be used to determine compliance with the opacity limitation in section A.1;

f. 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;

g. not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test(ITT)" notification to the Canton Local Air Agency. The ITT 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 conducting the tests. Failure to submit such a notification for review and approval at least 30 days prior to the test may result in the Canton Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Canton LAA 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 test(s) and submitted to the Canton LAA within 30 days following completion of the test(s).

F. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
F008 - Alloy handling system	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
F009 - Slag Rake Station No. 3	OAC rule 3745-31-05(A)(3)	The fugitive PE/PM_{10} emissions rate from this emissions unit shall not exceed 0.16 lbs PE/PM_{10} per hour and 0.22 tons PE/PM_{10} per year. Also see section A.I.2.a and A.I.2.b
	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent thatn the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07	The emission limitation specified by this rule is less stringent thatn the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08	The emission limitation specified by this rule is less stringent thatn the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. **Additional Terms and Conditions**

2.a The PE/PM_{10} emissions from this emissions unit shall be collected and controlled by the number 4 melt shop evacuation system baghouse. This evacuation system is used to control PE/PM_{10} emissions from emission units P907, P905, P106, P159, F009, and parts of F003 and P068. The following limitations were established as BAT for $PE/PM_{10.}$ emissions in the federally enforceable Permit to Install(PTI) 15-1314 issued on June 17, 1998 and any subsequent modifications.

i. The visible emissions of fugitive dust from roof monitors(vents) and openings of the building housing the number 4 melt shop, including doors, windows, etc., shall not exceed an average of six(6) percent opacity as a six-minute average, unless otherwise specified.

ii. PE/PM_{10} stack emissions from the baghouse shall not exceed 0.0032 grains/dscf(BACT).

iii. The baghouse shall have a minimum control efficiency of 99 %.

iv. The evacuation system shall achieve and maintain a minimum capture efficiency that is sufficient to prevent violations of the six(6) percent opacity emission limitation for fugitive emissions from the melt shop.

2.b The permittee shall employ reasonably available control measures(RACM) to minimize or eliminate visible particulate emissions of fugitive dust at the point of generation to the extent possible employing good engineering design. RACM shall include, at a minimum, conducting all raking activities inside a building and the use of a capture and control system for PE/PM_{10} emissions.

B. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 4 to 14 inches of water, while the emission unit is in operation. The pressure drop shall not be considered outside the normal range when the pressure drop falls below the minimum point in the pressure drop differential range as the result of bag replacements.

   The permittee shall establish the pressure drop range for baghouse operation that will ensure ongoing compliance during the stack test conducted for this emission unit as specified in section A.V.2.

C. Monitoring and/or Record keeping Requirements

1. The permittee shall perform weekly checks when the emissions unit is in operation during daylight hours and when the weather conditions allow, for any visible particulate emissions from any non-stack egress points from the building housing this emissions unit(e.g., windows, doors, roof monitors, etc.). This weekly check shall be performed at a time that is representative of the typical activity of the several operations housed within this building(regardless of whether this specific emission unit is in operation). The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall note the following in the operations log.

   a. the color of the emissions;
   b. whether the emissions are representative of the normal operations;
   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

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

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the weekly check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

2. 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 O&M manuals and consistent with good engineering practices. The permittee shall record the pressure drop across the baghouse on a weekly basis.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation(excursion) reports identifying any periods of time during the previous quarter when visible emissions were observed in excess of the permitted limitation in sections A.2.a.(i and iv).

2. The permittee shall submit semiannual written reports that:

   a. identify all periods of time during which visible emissions were observed from any non-stack egress point serving this emissions unit.

   b. describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions

   These reports shall be submitted to the CCHD, APCD by January 31 and July 31 of each year and shall cover the previous six month period.

2. The permittee shall submit deviation(excursion) reports that identify all periods of time during which the pressure drop across the baghouse was not within the allowable range specified above.

E. Testing Requirements

1. Compliance with the emission limitations of this permit shall be demonstrated by using the following methods and procedure:

a. Emission limitations:
Visible fugitive emissions from the enclosure surrounding this emissions unit shall not exceed an average of six(6) percent opacity as a six (6)-minute average, unless otherwise specified.

Applicable compliance method:
If required, visible emissions shall be determined using 40 CFR, Appendix A, US EPA Method 9

b. Emission limitation:
PE/PM_{10} stack emissions from the baghouse shall not exceed 0.0032 grains/dscf(BACT).

The baghouse shall have a minimum control efficiency of 99 %.

Applicable compliance method:
Compliance shall be demonstrated by the use of USEPA Methods 1 - 4 and 5, Appendix A, 40 CFR Part 60

c. Emission limitation:
The evacuation system shall achieve and maintain a minimum capture efficiency that is sufficient to prevent violations of the six(6) percent opacity emission limitation for fugitive emissions from the melt shop.

Applicable compliance method:
Compliance shall be demonstrated by the monitoring and record keeping requirements specified in section C.1.

d. Emission limitation:
The fugitive PE/PM_{10} emissions rate from this emissions unit shall not exceed 0.16 lbs PE/PM_{10} per hour and 0.22 tons PE/PM_{10} per year.

Applicable compliance method:
The fugitive emission limitations specified above were developed as follows:

The uncontrolled tons of PE/PM_{10}/year generated is calculated as follows:

24,600 tons/year (maximum slag raked per year) x 0.9 lbs PE/PM_{10}/tons slag raked /2000 = 11.1 tons/year.

The max. annual stack emissions is 11.1 x 0.98 x (1-0.99) = 0.11 tons/year.
(Based on a 98 % capture and 99 % control efficiency of the baghouse)

The annual fugitive emission rate for PE/PM_{10} is 11.1 x (1-0.98) = 0.22 tons PE/PM_{10}/yr.

The hourly PE/PM_{10} fugitive emission rate = (0.22 tons PE/PM_{10}/yr. x 2000) / 2727 hours of operation per year = 0.16 lbs PE/PM_{10} / hour.

The operating hours per year were determined by the dividing the maximum no. of heats per year by the maximum no. of ladles raked per hour(noting that there is one heat per ladle).

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

   a. the emission testing shall be conducted in accordance with the schedule of testing established in the company's Title V permit;

   b. the test(s) shall be conducted while the emissions units P907, P905, P106, P159, and F009 are operating at or near its maximum capacity unless otherwise specified and approved by the Canton local air agency.

   c. the emissions testing shall be conducted to demonstrate compliance with the allowable grain loading for the baghouse and the control efficiency of the baghouse. The testing shall be conducted utilizing US EPA Method 5(or an approved alternative), 40 CFR Part 60, Appendix A.

   e. during the test method 9 visible emissions observations shall be conducted on the stack servicing this emissions unit. These readings shall be used to determine compliance with the opacity limitation in section A.2;

   f. the pressure drop across the baghouse, in inches of water, shall be recorded during the emissions test;

   g. not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test(ITT)" notification to the Canton Local Air Agency. The ITT 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 conducting the tests. Failure to submit such a notification for review and approval at least 30 days prior to the test may result in the Canton Local Air Agency's refusal to accept the results of the emission test(s).

   Personnel from the Canton LAA 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 test(s) and submitted to the Canton LAA within 30 days following completion of the test(s).

F. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
F009 - Slag Rake Station No. 3	OAC rule 3745-31-05	None

2. **Additional Terms and Conditions**

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P152 - Vacuum Tank Degasser Tank(VTD) no. 2. The Degasser operates under a vacuum created by a two(2) staged steam ejector system which acts as a gas condenser for removing sulfur dioxide and PM/PM_{10}.	OAC rule 3745-31-05(A)(3)	Emissions from this emission unit shall not exceed the following: 0.38 lbs PM/PM_{10}/hr. 0.77 tons PM/PM_{10}/year 10.7 lbs Sulfur Dioxide/hr. 21.9 tons Sulfur Dioxide/year 0.47 lbs Carbon Monoxide/hr. 0.96 tons Carbon Monoxide/year 0.09 lbs Lead /hr. 0.17 tons Lead/year
	OAC rule 3745-17-07	Visible particulate emissions shall not exceed 20 percent opacity as a six(6)-minute average from the stack
	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. **Additional Terms and Conditions**

2.a All emissions generated during steel degassing are captured using a steam ejector/condenser system which is an integral part of the emissions unit. The emission mass emission limitations are based on a control efficiency of the VTD ejector/condenser system of at least 99 percent for PM/PM_{10} emissions and at least 98 percent for sulfur dioxide emissions.

B. Operational Restrictions

1. The permittee shall conduct all lead inoculation of steel at the VTD process only.

C. Monitoring and/or Record keeping Requirements

1. The permittee shall develop a Parametric Monitoring and Record keeping plan in order to confirm that the condenser servicing this emissions unit is operating properly and to demonstrate continued operation at or above the overall control efficiency of the condenser. This plan shall be developed prior to the start of the lead inoculation in this emissions unit. The monitoring equipment, if required, shall be installed, calibrated, operated, and maintained in accordance with manufacturer's recommendations, instructions, and O&M manuals and consistent with good engineering practices. This plan, once approved by the Canton local air agency, shall be part of this permit.

2. The permittee shall perform the appropriate parametric monitoring and record keeping as identified in the approved plan established in condition C.1.

D. Reporting Requirements

1. The permittee shall submit deviation(excursion) reports that identify all deviations of the parametric monitoring requirements established as part of the plan identified in section C.1.

2. The permittee shall submit deviation(excursion) reports that identify all deviations of the permit emission limitations established in section A.I.1.

E. Testing Requirements

1. Compliance with the emission limitations of this permit shall be determined in accordance with the following procedure and methods:

   a. Emission limitation(s):
   0.38 lbs PM/PM_{10}/hr.
   0.77 tons PM/PM_{10}/year

   Applicable compliance method:
   Compliance shall be demonstrated using USEPA method 1-4 and 5(or an approved alternative), Appendix A, 40 CFR Part 60.

   Emission limitation:
   10.7 lbs Sulfur Dioxide/hr.
   21.9 tons Sulfur Dioxide/year

   Applicable compliance method:
   .Compliance shall be demonstrated using USEPA method 6(or an approved alternative), Appendix A, 40 CFR Part 60.

Emission limitation(s):
0.47 lbs CO/hr.
0.96 tons CO/yr

Applicable compliance method:
Compliance shall be demonstrated using USEPA method 10(or an approved alternative), Appendix A, 40 CFR Part 60.

Emission limitation(s):
0.09 lbs lead/hr.
0.17 tons lead/yr

Applicable compliance method:
Compliance shall be demonstrated using USEPA method 12(or an approved alternative), Appendix A, 40 CFR Part 60.

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

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

   b. Conduct testing while the emissions unit is operated at or near its maximum capacity unless otherwise approved by the Canton local air agency or Ohio EPA;

   c. Conduct testing to verify the parametric monitoring requirements established in the PMR plan required in section C.1;

   d. Conduct emission testing to demonstrate compliance with the allowable mass emission rate for PM, CO, Pb, and SO2; and

   e. Conduct emission testing to establish revised parametric monitoring limitations and/or ranges for those parametric values in the plan which do not reflect compliant operation of the control device.

   f. The emissions testing shall be conducted using the following test methods:

PM	US EPA Method 5	40 CFR Part 60, Appendix A
Pb	US EPA Method 12	40 CFR Part 60, Appendix A
CO	US EPA Method 10	40 CFR Part 60, Appendix A
SO2	US EPA Method 6	40 CFR Part 60, Appendix A

g. Not later than 30 days prior to the proposed test date, the permittee shall submit an "Intent to Test"(ITT) notification to the Canton local air agency. The ITT 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 emissions test(s).

h. 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.

i. 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).

F. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P152 - Vacuum Tank Degasser	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P153 - Ladle preheater number 1 is fired with natural gas and has a maximum rated heat input of 13 mmBtu/hr.	OAC rule 3745-31-05(A)(3)	The permittee shall comply with the following emission limitations. The limitations are for each emission unit: 0.1 lbs PM/PM_{10}/hr. 0.43 tons PM/PM_{10}/yr. 1.56 lbs NOx/hr. 6.83 tons NOx/yr. 1.09 lbs CO/hr. 4.78 tons CO/yr.

2. **Additional Terms and Conditions**

   2.a The use of low NOx burners on this emission unit constitutes BAT for this installation.

B. Operational Restrictions

1. This emissions unit shall burn only natural gas.

2. This emission unit shall be equipped with low NOx burners with a rating of 0.12 lb NOx / mmBtu or better. The permittee shall install, operate and maintain the burners in accordance with manufacturer's recommendations, O&M manuals, instructions, and good engineering practices.

C. Monitoring and/or Record keeping Requirements

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.

D. Reporting Requirements

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.

E. Testing Requirements

1. Compliance with the emissions limitations of this permit shall be demonstrated in accordance with the following methods and procedures:

   a. Emission limitation:
   0.1 lbs PM/PM_{10}/hr.
   0.43 tons PM/PM_{10}/yr.

   Applicable compliance method:
   The hourly and annual emissions limitations were developed as follows:

   The Ladle preheaters are rated at 13 mmBtu/hr. each. The emission factors used are from US EPA AP-42 for natural gas burning. All emissions are due to natural gas combustion.

   Hourly mass emission rate limitation = 13 mmBtu/hr. x 1000 Btu/scf x 7.6 lb PM/PM_{10}/mmscf

   Annual mass emission rate limitation = 13 mmBtu/hr x 1000 Btu/scf x 7.6 lb PM/PM_{10}/mmscf x 8760/2000

   b. Emission limitation:
   1.56 lbs NOx/hr.
   6.83 tons NOx/yr.

   Applicable compliance method:
   The hourly and annual emissions limitations were developed as follows:

   The Ladle preheaters are rated at 13 mmBtu/hr. each. The emission factor used was provided by the manufacturer for low NOx burners to be used in the preheaters. All emissions are due to natural gas combustion.

   Hourly mass emission rate limitation = 13 mmBtu/hr. x 1000 Btu/scf x 0.12 lbs NOx/mmBtu of natural gas

   Annual mass emission rate limitation = 13 mmBtu/hr x 1000 Btu/scf x0.12 lbs NOx/mmBtu of natural gas x 8760/2000

   c. Emission limitation:
   1.09 lbs CO /hr.
   4.78 tons CO/yr.

Applicable compliance method:
The hourly and annual emissions limitations were developed as follows:

The Ladle preheaters are rated at 13 mmBtu/hr. each. The emission factors used are from US EPA AP-42 for natural gas burning. All emissions are due to natural gas combustion.

Hourly mass emission rate limitation = 13 mmBtu/hr. x 1000 Btu/scf x 84 lbs CO/mmscf

Annual mass emission rate limitation = 13 mmBtu/hr x 1000 Btu/scf x 84 lbs CO/mmscf x 8760/2000

F. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P153 - Ladle Preheater No. 1	OAC rule 3745-31-05	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P154 - Ladle preheater number 2 is fired with natural gas and has a maximum rated heat input of 13 mmBtu/hr.	OAC rule 3745-31-05(A)(3)	The permittee shall comply with the following emission limitations. The limitations are for each emission unit: 0.1 lbs PM/PM_{10}/hr. 0.43 tons PM/PM_{10}/yr. 1.56 lbs NOx/hr. 6.83 tons NOx/yr. 1.09 lbs CO/hr. 4.78 tons CO/yr.

2. **Additional Terms and Conditions**

   2.a The use of low NOx burners on this emission unit constitutes BAT for this installation.

B. Operational Restrictions

1. This emissions unit shall burn only natural gas.

2. This emission unit shall be equipped with low NOx burners with a rating of 0.12 lb NOx / mmBtu or better. The permittee shall install, operate and maintain the burners in accordance with manufacturer's recommendations, O&M manuals, instructions, and good engineering practices.

C. Monitoring and/or Record keeping Requirements

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.

D. Reporting Requirements

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.

E. Testing Requirements

1. Compliance with the emissions limitations of this permit shall be demonstrated in accordance with the following methods and procedures:

   a. Emission limitation:
   0.1 lbs PM/PM_{10}/hr.
   0.43 tons PM/PM_{10}/yr.

   Applicable compliance method:
   The hourly and annual emissions limitations were developed as follows:

   The Ladle preheaters are rated at 13 mmBtu/hr. each. The emission factors used are from US EPA AP-42 for natural gas burning. All emissions are due to natural gas combustion.

   Hourly mass emission rate limitation = 13 mmBtu/hr. x 1000 Btu/scf x 7.6 lb PM/PM_{10}/mmscf

   Annual mass emission rate limitation = 13 mmBtu/hr x 1000 Btu/scf x 7.6 lb PM/PM_{10}/mmscf x 8760/2000

   b. Emission limitation:
   1.56 lbs NOx/hr.
   6.83 tons NOx/yr.

   Applicable compliance method:
   The hourly and annual emissions limitations were developed as follows:

   The Ladle preheaters are rated at 13 mmBtu/hr. each. The emission factor used was provided by the manufacturer for low NOx burners to be used in the preheaters. All emissions are due to natural gas combustion.

   Hourly mass emission rate limitation = 13 mmBtu/hr. x 1000 Btu/scf x 0.12 lbs NOx/mmBtu of natural gas

   Annual mass emission rate limitation = 13 mmBtu/hr x 1000 Btu/scf x0.12 lbs NOx/mmBtu of natural gas x 8760/2000

   c. Emission limitation:
   1.09 lbs CO /hr.
   4.78 tons CO/yr.

Applicable compliance method:
The hourly and annual emissions limitations were developed as follows:

The Ladle preheaters are rated at 13 mmBtu/hr. each. The emission factors used are from US EPA AP-42 for natural gas burning. All emissions are due to natural gas combustion.

Hourly mass emission rate limitation = 13 mmBtu/hr. x 1000 Btu/scf x 84 lbs CO/mmscf

Annual mass emission rate limitation = 13 mmBtu/hr x 1000 Btu/scf x 84 lbs CO/mmscf x 8760/2000

F. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P154 - Ladle Preheater No. 2	OAC rule 3745-31-05	None

2. **Additional Terms and Conditions**
   2.a None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P155 - Tundish preheater number 1 is fired with natural gas and has a maximum rated heat input of 15 mmBtu/hr.	OAC rule 3745-31-05(A)(3)	The permittee shall comply with the following emission limitations: 0.1 lbs PM/PM_{10}/hr. 0.50 tons PM/PM_{10}/yr. 1.34 lbs NOx/hr. 5.85 tons NOx/yr. 1.26 lbs CO/hr. 5.52 tons CO/yr.

2. **Additional Terms and Conditions**

   2.a The use of low NOx burners on this emission unit constitutes BAT for this installation.

B. Operational Restrictions

1. The only fuel to be burned in this emissions unit shall be natural gas.

2. This emission unit shall be equipped with low NOx burners having a rating of 0.089 lb NOx / mmBtu or better. The permittee shall operate and maintain the burners in accordance with manufacturer's recommendations and O&M manuals, instructions, and good engineering practices.

C. Monitoring and/or Record keeping Requirements

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.

D. Reporting Requirements

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.

E. Testing Requirements

1. Compliance with the emissions limitations of this permit shall be demonstrated in accordance with the following methods and procedures:

   a. Emission limitation:
   0.1 lbs PM/PM_{10}/hr.
   0.50 tons PM/PM_{10}/yr.

   Applicable compliance method:
   The hourly and annual emissions limitations were developed as follows:

   The tundish preheaters are rated at 15 mmBtu/hr. each. The emission factors used are from US EPA AP-42 for natural gas burning. All emissions are due to natural gas combustion.

   Hourly mass emission rate limitation = 15 mmBtu/hr. x 1000 Btu/scf x 7.6 lb PM/PM_{10}/mmscf

   Annual mass emission rate limitation = 15 mmBtu/hr x 1000 Btu/scf x 7.6 lb PM/PM_{10}/mmscf x 8760/2000

   b. Emission limitation:
   1.34 lbs NOx/hr.
   5.85 tons NOx/yr.

   Applicable compliance method:
   The hourly and annual emissions limitations were developed as follows:

   The tundish preheaters are rated at 15 mmBtu/hr. each. The emission factor used was provided by the manufacturer for low NOx burners to be used in the preheaters. All emissions are due to natural gas combustion.

   Hourly mass emission rate limitation = 15 mmBtu/hr. x 1000 Btu/scf x 0.089 lbs NOx/mmBtu of natural gas

   Annual mass emission rate limitation = 15 mmBtu/hr x 1000 Btu/scf x 0.089 lbs NOx/mmBtu of natural gas x 8760/2000

c. Emission limitation:
1.26 lbs CO /hr.
5.52 tons CO/yr.

Applicable compliance method:
The hourly and annual emissions limitations were developed as follows:

The tundish preheaters are rated at 15 mmBtu/hr. each. The emission factors used are from US EPA AP-42 for natural gas burning. All emissions are due to natural gas combustion.

Hourly mass emission rate limitation = 15 mmBtu/hr. x 1000 Btu/scf x 84 lbs CO/mmscf

Annual mass emission rate limitation = 15 mmBtu/hr x 1000 Btu/scf x 84 lbs CO/mmscf x 8760/2000

F. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P155 - Tundish Preheater No. 1	OAC rule 3745-31-05(A)(3)	None

2. **Additional Terms and Conditions**

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P156 - Tundish Preheater No. 2	OAC rule 3745-31-05(A)(3)	The permittee shall comply with the following emission limitations: 0.1 lbs PM/PM_{10}/hr. 0.50 tons PM/PM_{10}/yr. 1.34 lbs NOx/hr. 5.85 tons NOx/yr. 1.26 lbs CO/hr. 5.52 tons CO/yr.

2. **Additional Terms and Conditions**

   2.a The use of low NOx burners on this emission unit constitutes BAT for this installation.

B. Operational Restrictions

1. The only fuel to be burned in this emissions unit shall be natural gas.

2. This emission unit shall be equipped with low NOx burners having a rating of 0.089 lb NOx / mmBtu or better. The permittee shall operate and maintain the burners in accordance with manufacturer's recommendations and O&M manuals, instructions, and good engineering practices.

C. Monitoring and/or Record keeping Requirements

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.

D. Reporting Requirements

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.

E. Testing Requirements

1. Compliance with the emissions limitations of this permit shall be demonstrated in accordance with the following methods and procedures:

   a. Emission limitation:
   0.1 lbs PM/PM_{10}/hr.
   0.50 tons PM/PM_{10}/yr.

   Applicable compliance method:
   The hourly and annual emissions limitations were developed as follows:

   The tundish preheaters are rated at 15 mmBtu/hr. each. The emission factors used are from US EPA AP-42 for natural gas burning. All emissions are due to natural gas combustion.

   Hourly mass emission rate limitation = 15 mmBtu/hr. x 1000 Btu/scf x 7.6 lb PM/PM_{10}/mmscf

   Annual mass emission rate limitation = 15 mmBtu/hr x 1000 Btu/scf x 7.6 lb PM/PM_{10}/mmscf x 8760/2000

   b. Emission limitation:
   1.34 lbs NOx/hr.
   5.85 tons NOx/yr.

   Applicable compliance method:
   The hourly and annual emissions limitations were developed as follows:

   The tundish preheaters are rated at 15 mmBtu/hr. each. The emission factor used was provided by the manufacturer for low NOx burners to be used in the preheaters. All emissions are due to natural gas combustion.

   Hourly mass emission rate limitation = 15 mmBtu/hr. x 1000 Btu/scf x 0.089 lbs NOx/mmBtu of natural gas

   Annual mass emission rate limitation = 15 mmBtu/hr x 1000 Btu/scf x 0.089 lbs NOx/mmBtu of natural gas x 8760/2000

c. Emission limitation:
1.26 lbs CO /hr.
5.52 tons CO/yr.

Applicable compliance method:
The hourly and annual emissions limitations were developed as follows:

The tundish preheaters are rated at 15 mmBtu/hr. each. The emission factors used are from US EPA AP-42 for natural gas burning. All emissions are due to natural gas combustion.

Hourly mass emission rate limitation = 15 mmBtu/hr. x 1000 Btu/scf x 84 lbs CO/mmscf

Annual mass emission rate limitation = 15 mmBtu/hr x 1000 Btu/scf x 84 lbs CO/mmscf x 8760/2000

F. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P156 - Tundish Preheater No. 2	OAC rule 3745-31-05	None

2. **Additional Terms and Conditions**

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P157 - Bloom/Billet Caster emissions generated during steel transfer from the ladle to the tundish and during opens over E-ladle episodes. The emission unit is equipped with a fabric filter control device to control particulate emissions generated during the transfer of steel from the ladle to the tundish during the processing of leaded steels. The caster has a maximum production rate of 1,200,000 tons/yr.	OAC rule 3745-31-05(A)(3)	See section A.I.2.a BAT Stack Emissions: $PE/_{PM10}$ baghouse stack emissions shall not exceed 0.54 pounds per hour and 2.36 tons per year for casting emissions at the tundish during casting of leaded steel (based on 0.002 gr/dscf and 31,450 dscfm) Lead stack emissions from the baghouse shall not exceed 0.03 pounds per hour and 0.11 tons per year for casting emissions generated at the tundish during casting of leaded steel .(based on 0.002 gr/dscf, 31,450 dscfm, and 4.57 % lead in PE) Emissions from the baghouse servicing this emission unit shall not exceed 0.002 grain/dscfm PE/PM_{10} BAT Fugitive Emissions: PE/PM_{10} fugitive emissions shall not exceed 0.19 pounds per hour and 0.84 tons per year for any casting emissions at the tundish during casting of leaded and non-leaded steels Lead fugitive emissions shall not exceed 0.011 pounds per hour and 0.04 tons per

	year for any casting emissions at the tundish during casting of leaded and non-leaded steels PE/PM_{10} fugitive emissions generated during ladle opens over E-ladle episodes shall not exceed 1.41 pounds per hour and 1.93 tons per year. Lead fugitive emissions generated during ladle opens over E-ladle episodes shall not exceed 0.08 pounds per hour and 0.11 tons per year. Visible particulate emissions from building or enclosure egress points serving this emission unit shall not exceed six(6) percent opacity as a six(6) minute average. when casting leaded steel or the release of leaded steel during a ladle open over E-ladle episode. Visible particulate stack emissions from the baghouse serving this emission unit shall not exceed six(6) percent opacity as a six(6) minute average when casting leaded steel.
OAC rule 3745-17-07(B)(1)	Visible particulate fugitive emissions from building or enclosure egress points serving this emission unit shall not exceed twenty(20) percent opacity as a three(3)-minute average when casting non-leaded steel or during the release of non-leaded steel during a ladle open over E-ladle episode.
OAC rule 3745-17-08	See section A.2.b below
OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a BAT consists of the use of a collection system and fabric filter to control of emissions and the emission limitations specified in section A.I.1 resulting from the use of this control device when transferring leaded steel from the ladle to the tundish.

2.b The permittee shall minimize or eliminate visible fugitive emissions through the employment of reasonably available control measures(RACM) when casting leaded steel. These measures shall include, but not limited to, the installation and use of hoods, fans, and other equipment to adequately enclose, contain, capture, and vent fugitive dust to the baghouse and a collection efficiency that is sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

RACM during the casting non-leaded steel and during ladle opens over E-ladle episodes shall consist of conducting these operations inside a building.

The permittee shall utilize a tundish lid and on the tundish and a ladle cover whenever possible to minimize particulate emissions during the transfer of steel from the ladle to the tundish.

2.c The negative static pressure measured inside the capture ductwork 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 95 %.

2.d PE/PM_{10} emissions from this emission unit shall be captured and vented to a dedicated baghouse during the processing of leaded steel. The capture efficiency for the control system shall be at least 98 %. The baghouse shall control PE/PM_{1010} emissions to comply with the mass emission and grain loading limitations specified in section A.I.1

II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 1 to 9 in inches of water, while the emission unit is in operation. The pressure drop shall not be considered outside the normal range when the pressure drop falls below the minimum point in the pressure drop differential range as the result of bag replacements.

   The permittee shall establish the pressure drop range for baghouse operation that will ensure ongoing compliance during the stack test conducted for this emission unit as specified in section A.V.2.

2. The permittee shall not conduct lead inoculation at this emission unit.

3. The permittee shall limit the number of emergency ladle open episodes to 2728 per year.

III. Monitoring and/or Record keeping Requirements

1. The permittee shall perform weekly checks when the emissions unit is in operation during daylight hours and when the weather conditions allow, for any visible particulate emissions from any non-stack egress points from the building housing this emissions unit(e.g., windows, doors, roof monitors, etc.). This weekly check shall be performed at a time that is representative of the typical activity of the several operations housed within this building(regardless of whether this specific emission unit is in operation). The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall note the following in the operations log.

   a. the color of the emissions;
   b. whether the emissions are representative of the normal operations;
   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
   d. the total duration of any visible fugitive particulate emission incident;
   e. any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions; and
   f. whether leaded or unleaded steel is being processed within the building.

   If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the weekly check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

2. 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 O&M manuals and consistent with good engineering practices. The permittee shall record the pressure drop across the baghouse on a daily basis.

3. The permittee shall properly install, operate, and maintain equipment to monitor the negative static pressure measured inside the capture ductwork just before the first branch point prior to the control device. The monitor shall measure negative pressure 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 O&M manuals. The permittee shall record the negative static pressure on a daily basis.

4. The permittee shall maintain records of the date of each ladle open over E-ladle episode and the total number of open over E-ladle episodes per month.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that:

   a. identify all periods of time during which visible emissions were observed from any non-stack egress point serving this emissions unit.

   b. describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions

   c. the total number of open over E-ladle episodes occurring

   These reports shall be submitted to the CCHD, APCD by January 31 and July 31 of each year and shall cover the previous six month period.

2. The permittee shall submit deviation(excursion) reports that identify all periods of time during which the pressure drop across the baghouse was not within the allowable range specified above.

3. The permittee shall submit quarterly deviation(excursions) 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.

V. Testing Requirements

1. Compliance with the emission limitations of this permit shall be demonstrated by using the following methods and procedure:

   a. Emission limitation:
   Visible stack emissions from the baghouse shall not exceed an average of six(6) percent opacity as a six (6)-minute average, unless otherwise specified when processing leaded steel

   Applicable compliance method:
   If required, visible emissions shall be determined using 40 CFR, Appendix A, US EPA, Method 9

   b. Emission limitation:
   Visible fugitive emissions from the building housing this emissions unit shall not exceed an average of six(6) percent opacity as a six (6)-minute average when processing leaded steel or when releasing steel during a ladle opens over E-ladle episode and twenty(20) percent as a three(3)- minute average when processing non-leaded steel unless otherwise specified.

Applicable compliance method:
If required, visible emissions shall be determined using 40 CFR, Appendix A, US EPA, Method 9

c. Emission limitation:
PE/PM_{10} baghouse stack emissions shall not exceed 0.54 pounds per hour and 2.36 tons per year for casting emissions at the tundish during casting of leaded steel (based on 0.002 gr/dscf and 31,450 dscfm grain loading and air flow rate from the baghouse stack)

Lead stack emissions from the baghouse shall not exceed 0.03 pounds per hour and 0.11 tons per year for casting emissions generated at the tundish during casting of leaded steel .(based on 0.002 gr/dscf, 31,450 dscfm, and 4.57 % lead in PM)

Emissions from the baghouse servicing this emission unit shall not exceed 0.002 grain/dscfm PE/PM_{10}.

Applicable compliance method:
Compliance with the hourly emission limitations and grain loading limitation shall be demonstrated by using US EPA Method 5, Appendix A, 40 CFR Part 60 or an approved alternative method.

Compliance with the annual emission limitation shall be demonstrated by multiplying the hourly emission rate obtained from the last approved stack test report by the total maximum number of hours the emission unit operated in the previous calendar year and divide the total by 2000.

d. Emission limitation:
The PE/PM_{10} fugitive emissions shall not exceed 0.19 lbs PE/PM_{10} per hour and 0.84 tons PE/PM_{10} per year. The lead fugitive emissions shall not exceed 0.011 pounds per hour and 0.04 tons per year.

Applicable compliance method:
These emission limitations were developed as follows:

Annual fugitive emissions = 0.0014 lb PE/PM_{10}/ton steel produced x 1,200,000 tons steel/yr./2000 = 0.84 tpy

Hourly fugitive emissions = 0.84 x 2000 = 1680 lbs PE/PM_{10}/8760 = 0.19 lbs PE/PM_{10}/hr.

Annual lead fugitive emissions = 0.84 tpy PE/PM_{10} x 0.0457 = 0.04 tpy lead

Hourly lead fugitive emissions = 0.19 lbs PE/PM_{10}/hr. x 0.0457 = 0.009 lbs lead/hr.

The lead fugitive emission factor of 0.0000642 lb lead/ton steel estimate is based on USS/Kobe Steel, Lorain, Ohio plant study for lead in dust. The PE/PM_{10}fugitive emission factor 0.0014lb PE/PM_{10} per ton steel was developed as follows:

0.0000642 lb lead/ton steel)/0.0457 lb lead/lb PE/PM_{10}

Emission Limitations:
PE/PM_{10} fugitive emissions generated during ladle opens over E-ladle episodes shall not exceed 1.41 pounds per hour and 1.93 tons per year.

Lead fugitive emissions generated during ladle opens over E-ladle episodes shall not exceed 0.08 pounds per hour and 0.11 tons per year.

Applicable Compliance Method:
These emission limitations were developed as follows:
Fugitive PE/PM_{10} annual emission rate = (((3500 lb steel lost/open over E-ladle episode x (0.50 lost/open over E-ladle episode/heat produced x 5455 heats produced/year)/2000) x 0.81 lb PE/PM_{10}/ton steel produced)/2000 lb/ton = 1.93 tons PE/PM_{10} / year.

Fugitive lead annual emission rate = 1.93 x 0.0562 = 0.11 tons lead/year

The maximum number of operating hours per year is based on the transfer rate possible considering the inherent limitations within the system. The operating hours per year is calculated as follows:
[(Maximum no. of heats produced per year) / (maximum ladles(or heats) produced per year)] x 0.50 = (5455/1 heat(or ladle) per hour) x 0.5 = 2728 hrs. per year.

Hourly fugitive PE/PM_{10} emission rate = (1.93 x 2000) / 2728 = 1.41 lbs PE/PM_{10}/hr.

Hourly fugitive lead emission rate = 1.41 lbs PE/PM_{10}/hr. x 0.0562 = 0.08 lbs lead/hr.

f. Emission limitation:
The collection system shall capture at least 98 % of the emissions from this emissions unit when leaded steel is being produced.

Applicable compliance method:
Compliance shall be demonstrated by observations of the capture efficiency and monitoring of the negative static pressure in the emissions collection ductwork entrance.

2. The permittee shall conduct or have conducted emissions 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 and approved by the Canton local air agency.

c. the emissions testing shall be conducted at the inlet and outlet of the baghouse to demonstrate compliance with the allowable mass emission rate for PE/PM_{10} in pounds per hour and grains per dscf from baghouse stack. The testing shall be conducted utilizing US EPA Method 5(or an approved alternative), 40 CFR Part 60, Appendix A for PE/PM_{10}. The outlet to the baghouse shall also be tested for lead in pounds per hour using US EPA Method 12(or an approved alternative), 40 CFR Part 60, Appendix A.

d. the pressure drop across the baghouse, in inches of water, shall be recorded during the emissions test;

e. during the test method 9 visible emissions observations shall be conducted on the stack servicing this emissions unit. These readings shall be used to determine compliance with the opacity limitation in section A.I.1;

f. 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;

g. not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test(ITT)" notification to the Canton Local Air Agency. The ITT 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 conducting the tests. Failure to submit such a notification for review and approval at least 30 days prior to the test may result in the Canton Local Air Agency's refusal to accept the results of the emission test(s).

   Personnel from the Canton LAA 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 test(s) and submitted to the Canton LAA within 30 days following completion of the test(s).

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P157 - Bloom/Billet Caster	OAC rule 3745-31-05	None

2. **Additional Terms and Conditions**

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P158 - Leaded steel ladle dumping	OAC rule 3745-31-05(A)(3)	See section A.I.2.a and A.I.2.b
	OAC rule 3745-17-11	The emission limitations specified for BAT are as stringent as those specified in this rule.
	OAC rule 3745-17-07	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08	See section A.2.b

2. **Additional Terms and Conditions**

2.a The PE/PM_{10} emissions from this emissions unit shall be collected and controlled by the number 4 melt shop evacuation system baghouse. This evacuation system is used to control PE/PM_{10} emissions from emission units P907, P905, P106, P159, F009, and parts of F003 and P068. The following limitations were established as BAT for PE/PM_{10} emissions in the federally enforceable Permit to Install(PTI) 15-1314 issued on June 17, 1998 and any subsequent modifications.

i. The visible emissions of fugitive dust from roof monitors(vents) and openings of the building housing the number 4 melt shop, including doors, windows, etc., shall not exceed an average of six(6) percent opacity as a six-minute average, unless otherwise specified.

ii. PE/PM_{10} stack emissions from the baghouse shall not exceed 0.0032 grains/dscf(BACT).

iii. The baghouse shall have a minimum control efficiency of 99 %.

iv. The evacuation system shall achieve and maintain a minimum capture efficiency that is sufficient to prevent violations of the six(6) percent opacity emission limitation for fugitive emissions from the melt shop.

2.b The permittee shall employ reasonably available control measures(RACM) to minimize or eliminate visible particulate emissions of fugitive dust at the point of generation to the extent possible employing good engineering design. RACM shall include, at a minimum, conducting all dumping activities inside a building and the use of a capture and control system for PE/PM_{10} emissions.

B. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 4 to 14 inches of water, while the emission unit is in operation. The pressure drop shall not be considered outside the normal range when the pressure drop falls below the minimum point in the pressure drop differential range as the result of bag replacements.

   The permittee shall establish the pressure drop range for baghouse operation that will ensure ongoing compliance during the stack test conducted for this emission unit as specified in section A.V.2.

C. Monitoring and/or Record keeping Requirements

1. The permittee shall perform weekly checks when the emissions unit is in operation during daylight hours and when the weather conditions allow, for any visible particulate emissions from any non-stack egress points from the building housing this emissions unit(e.g., windows, doors, roof monitors, etc.). This weekly check shall be performed at a time that is representative of the typical activity of the several operations housed within this building(regardless of whether this specific emission unit is in operation). The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall note the following in the operations log.

   a. the color of the emissions;
   b. whether the emissions are representative of the normal operations;
   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
   d. the total duration of any visible fugitive particulate emission incident;
   e. any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions; and

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

operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation(excursion) reports identifying any periods of time during the previous quarter when visible emissions were observed in excess of the permitted limitation in sections A.2.a.(i and iv).

2. The permittee shall submit semiannual written reports that:

   a. identify all periods of time during which visible emissions were observed from any non-stack egress point serving this emissions unit.

   b. describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions

   These reports shall be submitted to the CCHD, APCD by January 31 and July 31 of each year and shall cover the previous six month period.

2. The permittee shall submit deviation(excursion) reports that identify all periods of time during which the pressure drop across the baghouse was not within the allowable range specified above.

E. Testing Requirements

1. Compliance with the emission limitations of this permit shall be demonstrated by using the following methods and procedure:

   a. Emission limitations:
   Visible fugitive emissions from the enclosure surrounding this emissions unit shall not exceed an average of six(6) percent opacity as a six (6)-minute average, unless otherwise specified.

   Applicable compliance method:
   If required, visible emissions shall be determined using 40 CFR, Appendix A, US EPA Method 9

   b. Emission limitation:
   PE/PM_{10} stack emissions from the baghouse shall not exceed 0.0032 grains/dscf(BACT).

   The baghouse shall have a minimum control efficiency of 99 %.

Applicable compliance method:
Compliance shall be demonstrated by the use of USEPA Methods 1 - 4 and 5, Appendix A, 40 CFR Part 60

c. Emission limitation:
The evacuation system shall achieve and maintain a minimum capture efficiency that is sufficient to prevent violations of the six(6) percent opacity emission limitation for fugitive emissions from the melt shop.

Applicable compliance method:
Compliance shall be demonstrated by the monitoring and record keeping requirements specified in section C.1.

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

a. the emission testing shall be conducted in accordance with the schedule of testing established in the company's Title V permit for the baghouse servicing the no. 4 melt shop;

b. the test(s) shall be conducted while the emissions units P907, P905, P106, P159, and F009 are operating at or near its maximum capacity unless otherwise specified and approved by the Canton local air agency.

c. the emissions testing shall be conducted to demonstrate compliance with the allowable grain loading for the baghouse and the control efficiency of the baghouse. The testing shall be conducted utilizing US EPA Method 5(or an approved alternative), 40 CFR Part 60, Appendix A.

e. during the test method 9 visible emissions observations shall be conducted on the stack servicing this emissions unit. These readings shall be used to determine compliance with the opacity limitation in section A.2;

f. the pressure drop across the baghouse, in inches of water, shall be recorded during the emissions test;

g. not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test(ITT)" notification to the Canton Local Air Agency. The ITT 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 conducting the tests. Failure to submit such a notification for review and approval at least 30 days prior to the test may result in the Canton Local Air Agency's refusal to accept the results of the emission test(s).

Personnel from the Canton LAA 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 test(s) and submitted to the Canton LAA within 30 days following completion of the test(s).

F. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P158 - Leaded Steel Ladle dumping	OAC rule 3745-31-05	None

2. **Additional Terms and Conditions**

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None