



State of Ohio Environmental Protection Agency

RE: DRAFT PERMIT TO INSTALL CERTIFIED MAIL
WAYNE COUNTY

Street Address:

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

Mailing Address:
Lazarus Gov.
Center

Application No: 02-13038

DATE: 2/2/00

Technocast Inc
David Beard
1100 N Main St
Orrville, OH 44667-1015

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43266-0149.

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$2400** will be due. Please do not submit any payment now.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Very truly yours,

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

CC: USEPA

NEDO



STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

Permit To Install

Issue Date: To be entered upon final issuance

DRAFT PERMIT TO INSTALL 02-13038

Application Number: 02-13038
APS Premise Number: 0285010034
Permit Fee: **To be entered upon final issuance**
Name of Facility: Technocast Inc
Person to Contact: David Beard
Address: 1100 N Main St
Orrville, OH 44667-1015

Location of proposed air contaminant source(s) [emissions unit(s)]:

**1100 North Main St
Orrville, Ohio**

Description of proposed emissions unit(s):

Modification to three electric induction furnaces to increase melt rate.

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

Technocast Inc

Facility ID: 0285010034

PTI Application: 02-13038

Issued: To be entered upon final issuance

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.11 below if no deviations occurred during the quarter.

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- 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

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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

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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.

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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 thirty (30) days after commencing operation of the source(s) covered by this permit.

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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 Related to Monitoring and Recordkeeping 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. 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.

5. Termination of Permit To Install

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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.

6. 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 are inadequate 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 prove to be inadequate or cannot meet applicable standards.

7. 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.

8. 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).

9. Best Available Technology

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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.

10. Construction Compliance Certification

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

11. 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**

<u>Pollutant</u>	<u>Tons Per Year</u>
PM	11.02
Pb	0.339

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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.

**Techn
PTI A**

Emissions Unit ID: **F018**

Issued: To be entered upon final issuance

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Electric induction furnace #1, rated at 9 TPH, vented to fabric filter baghouse (modification to increase melt rate)	OAC rule 3745-31-05(D)	PM/PM10: 11.02 tons per rolling 12-month period (6.38 tons from stack and 4.64 tons fugitive) Pb: 0.339 ton per rolling 12-month period (0.0296 ton from stack and 0.309 ton fugitive)
	OAC rule 3745-17-08(B)	See A.2.a. In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) shall not apply to this emissions unit.
	OAC rule 3745-17-11	Less stringent than the limit from 3745-31-05(D)
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed twenty percent

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Techn

PTI A

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opacity as a six minute
average, except as
provided by rule.

Emissions Unit ID: **F018**

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2. Additional Terms and Conditions

2.a The annual PM and Pb emission limitations stated in Section A.I.1. are the combined emission limitations for units F018, F019 and F031. Emissions units F018, F019 and F031 are three electric induction furnaces which share a common power supply. The maximum combined melt rate for the three furnaces is 10.8 tons per hour. The maximum melt rate for F018 is 9 tons per hour.

2.b Particulate matter emissions from units F018, F019, and F031 are captured and controlled by the 150,000 acfm BACT fabric filter baghouse. This baghouse also controls particulate emissions from units F003, F008, F029, P026 and P027.

II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 2 to 7 inches of water while the emissions unit is in operation.
2. The collection efficiency of the air pollution capture hoods for this emissions unit shall be sufficient to minimize or eliminate visible emissions of fugitive dust at all points of capture. The permittee shall maintain all hoods and enclosures in good operating condition. The collection efficiency shall be considered adequate if visible particulate emissions of fugitive dust do not exceed 10% opacity as a six-minute average.
3. The maximum annual production rate of iron for emissions units F018, F019 and F031 shall not exceed 30,940 tons, based upon a rolling, 12-month summation of the production rates.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the production levels specified in the following table:

<u>Month</u>	<u>Cumulative Production</u> (Tons iron)	<u>Maximum Allowable</u>

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Emissions Unit ID: **F018**

1	2578
1-2	5156
1-3	7734
1-4	10312
1-5	12890
1-6	15468
1-7	18046
1-8	20624
1-9	23202
1-10	25780
1-11	28358
1-12	30940

After the first 12 calendar months of operation following the issuance of this permit compliance with the annual production rate limitation shall be based upon a rolling, 12-month summation of the production rates.

- The maximum annual operating hours for emissions units F018, F019 and F031 shall not exceed 6900, based upon a rolling, 12-month summation of the operating hours. Operating hours in a day are defined as the period of time beginning with the first charge of the day into any of the three furnaces and ending with the last metal tap of the day.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the operating hours levels specified in the following table:

<u>Month(s)</u>	<u>Cumulative Operating Hours</u>	<u>Maximum Allowable</u>
1	575	
1-2	1150	
1-3	1725	
1-4	2300	
1-5	2875	
1-6	3450	
1-7	4025	
1-8	4600	
1-9	5175	
1-10	5750	
1-11	6325	
1-12	6900	

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After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

III. Monitoring and/or Recordkeeping Requirements

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

2. The permittee shall maintain monthly records of the following information:

- a. The total production rate in emissions units F018, F019 and F031 for each month.
- b. Beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the production rates.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the total cumulative production rate for each calendar month.

3. The permittee shall maintain monthly records of the following information:

- a. The operating hours for each month.
- b. Beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the operating hours.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative operating hours for each calendar month.

IV. Reporting Requirements

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

2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the

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rolling, 12-month production rate limitation and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative production levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(1).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating hours limitation and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative operating hours levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(1).

V. Testing Requirements

1. Emission Limitation: 11.02 tons PM/PM10 for any 12-month period.

Applicable compliance Method: Compliance with this limit is assumed provided that the unit is controlled by the baghouse and the restrictions in production and operating hours are not exceeded. The following equation shall be used to estimate monthly PM emissions:

$$E_t = E_s + E_f$$

Where,

$E_s = 1.85 \text{ lbs PM/hr} \times H \text{ (monthly hours of operation)} \times 1/2000 \text{ (ton/pounds)}$, stack emissions

$E_f = 1.5 \text{ lbs PM/tn iron (uncontrolled PM emission factor)} \times 0.2 \text{ (percent of emissions not captured)} \times T_i \text{ (tons iron produced monthly)}$, fugitive emissions

Sum the monthly emissions over any 12 month period to show compliance with the rolling limit.

2. Emission Limitation: 0.339 ton Pb for any 12-month period.

Applicable compliance Method: Compliance with this limit is assumed provided that the unit is controlled by the baghouse and the restrictions in production and operating hours are not exceeded. The following equation shall be used to estimate monthly Pb emissions:

$$E_t = E_s + E_f$$

Where,

$E_s = 0.0086 \text{ lb Pb/hr} \times H \text{ (monthly hours of operation)} \times 1/2000 \text{ (ton/pounds)}$, stack emissions

$E_f = 0.1 \text{ lb Pb/tn iron (uncontrolled Pb emission factor)} \times 0.2 \text{ (percent of emissions not captured)} \times T_i \text{ (tons iron produced monthly)}$, fugitive emissions

Sum the monthly emissions over any 12 month period to show compliance with the rolling limit.

3. Compliance with the visible emission limitation on the baghouse stack shall be determined by using U.S. EPA method 9, if required by the Ohio EPA.
4. Compliance with the visible emission limitation for the fugitive emissions identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

VI. Miscellaneous Requirements

1. The requirements of this permit shall replace the requirements of PTI 02-720 entirely.

**Techn
PTI A**

Emissions Unit ID: **F018**

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B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Electric induction furnace #1, rated at 9 TPH, vented to fabric filter baghouse (modification to increase melt rate)	OAC rule 3745-31-05(A)(3)	PM/PM10: 0.006 gr/dscf and 1.85 lbs/hr from stack, 11.02 tons per year (6.38 tons from stack and 4.64 tons fugitive) Pb: 0.0086 lb/hr from stack, 0.339 ton/yr (0.0296 ton from stack and 0.309 ton fugitive) Visible emissions shall not exceed 5% opacity as a six minute average from the stack See B.2.a.

2. Additional Terms and Conditions

- 2.a Particulate matter emissions from units F018, F019, and F031 are captured and controlled by the 150,000 acfm fabric filter baghouse. This baghouse also controls particulate emissions from units F003, F008, F029, P026 and P027.
- 2.b The PM and Pb emission limitations stated in Section B.I.1. are the combined emission limitations for units F018, F019 and F031.

II. Operational Restrictions

None

Issued: To be entered upon final issuance**III. Monitoring and/or Recordkeeping Requirements**

None

IV. Reporting Requirements

None

V. Testing Requirements

1. Emission Limitation: 0.006 gr/dscf and 1.85 pounds PM per hour from fabric filter stack

Applicable Compliance Method: Compliance shall be demonstrated by the emissions testing and procedures specified in section B.V.6 of these terms and conditions.

The hourly limit of 1.85 pounds per hour is based on a grain loading limit of 0.006 gr/dscf and the anticipated gas flow rate from emissions units F018,F019 and F031 of 36,000 SCFM.

2. Emission Limitation: 0.0086 pound Pb per hour from fabric filter stack

Applicable Compliance Method: Compliance shall be demonstrated by the emissions testing if required by the Ohio EPA.

3. Compliance with the visible emission limitation on the baghouse stack shall be determined by using U.S. EPA method 9, if required by the Ohio EPA.

4. Emission Limitation: 11.02 tons PM/PM10 per year

Applicable compliance Method: Compliance with this limit shall be demonstrated by the Testing requirements in Section A.V.1 of these terms and conditions.

5. Emission Limitation: 0.339 ton Pb per year

Applicable Compliance Method: Compliance with this limit shall be demonstrated by the Testing requirements in Section A.V.2. of these terms and conditions.

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

- a. The emission testing shall be conducted within 2 months after issuance of the permit.

- b. The emission testing shall be conducted to demonstrate compliance with the mass emission limit for particulate matter.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1-5 of 40 CFR Part 60, Appendix A.
- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
- e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
- f. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

VI. Miscellaneous Requirements

None

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

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Electric induction furnace #3, rated at 9 TPH, vented to fabric filter baghouse (modification to increase melt rate)	OAC rule 3745-31-05(D)	PM/PM10: 11.02 tons per rolling 12-month period (6.38 tons from stack and 4.64 tons fugitive) Pb: 0.339 ton per rolling 12-month period (0.0296 ton from stack and 0.309 ton fugitive) See A.2.a.
	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) shall not apply to this emissions unit.
	OAC rule 3745-17-11	Less stringent than the limit from 3745-31-05(D)
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed twenty percent opacity as a six minute average, except as provided by rule.

Emissions Unit ID: F019

2. Additional Terms and Conditions

2.a. The annual PM and Pb emission limitations stated in Section A.I.1. are the combined emission limitations for units F018, F019 and F031. Emissions units F018, F019 and F031 are three electric induction furnaces which share a common power supply. The maximum combined melt rate for the three furnaces is 10.8 tons per hour. The maximum melt rate for F018 is 9 tons per hour.

2.b Particulate matter emissions from units F018, F019, and F031 are captured and controlled by the 150,000 acfm BACT fabric filter baghouse. This baghouse also controls particulate emissions from units F003, F008, F029, P026 and P027.

II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 2 to 7 inches of water while the emissions unit is in operation.

2. The collection efficiency of the air pollution capture hoods for this emissions unit shall be sufficient to minimize or eliminate visible emissions of fugitive dust at all points of capture. The permittee shall maintain all hoods and enclosures in good operating condition. The collection efficiency shall be considered adequate if visible particulate emissions of fugitive dust do not exceed 10% opacity as a six-minute average.

3. The maximum annual production rate of iron for emissions units F018, F019 and F031 shall not exceed 30,940 tons, based upon a rolling, 12-month summation of the production rates.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the production levels specified in the following table:

<u>Month</u>	<u>Cumulative Production</u>	<u>Maximum Allowable</u> (Tons iron)
1	2578	
1-2	5156	
1-3	7734	
1-4	10312	
1-5	12890	
1-6	15468	
1-7	18046	
1-8	20624	
1-9	23202	

Issued: To be entered upon final issuance

1-10	25780
1-11	28358
1-12	30940

After the first 12 calendar months of operation following the issuance of this permit compliance with the annual production rate limitation shall be based upon a rolling, 12-month summation of the production rates.

4. The maximum annual operating hours for emissions units F018, F019 and F031 shall not exceed 6900, based upon a rolling, 12-month summation of the operating hours. Operating hours in a day are defined as the period of time beginning with the first charge of the day into any of the three furnaces and ending with the last metal tap of the day.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the operating hours levels specified in the following table:

<u>Month(s)</u>	<u>Cumulative Operating Hours</u>	<u>Maximum Allowable</u>
1	575	
1-2	1150	
1-3	1725	
1-4	2300	
1-5	2875	
1-6	3450	
1-7	4025	
1-8	4600	
1-9	5175	
1-10	5750	
1-11	6325	
1-12	6900	

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

III. Monitoring and/or Recordkeeping Requirements

Issued: To be entered upon final issuance

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

2. The permittee shall maintain monthly records of the following information:

- a. The total production rate in emissions units F018, F019 and F031 for each month.
- b. Beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the production rates.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the total cumulative production rate for each calendar month.

3. The permittee shall maintain monthly records of the following information:

- a. The operating hours for each month.
- b. Beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the operating hours.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative operating hours for each calendar month.

IV. Reporting Requirements

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

2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month production rate limitation and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative production levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(1).

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating hours limitation and, for the first 12 calendar months of operation following

Emissions Unit ID: **F019**

the issuance of this permit, all exceedances of the maximum allowable cumulative operating hours levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(1).

V. Testing Requirements

1. Emission Limitation: 11.02 tons PM/PM10 for any 12-month period.

Applicable compliance Method: Compliance with this limit is assumed provided that the unit is controlled by the baghouse and the restrictions in production and operating hours are not exceeded. The following equation shall be used to estimate monthly PM emissions:

$$E_t = E_s + E_f$$

Where,

$E_s = 1.85 \text{ lbs/hr} \times H$ (monthly hours of operation) $\times 1/2000$ (ton/pounds), stack emissions

$E_f = 1.5 \text{ lbs PM/tn iron}$ (uncontrolled PM emission factor) $\times 0.2$ (percent of emissions not captured) $\times T_i$ (tons iron produced monthly), fugitive emissions

Sum the monthly emissions over any 12 month period to show compliance with the rolling limit.

2. Emission Limitation: 0.339 ton Pb for any 12-month period.

Applicable compliance Method: Compliance with this limit is assumed provided that the unit is controlled by baghouse and the restrictions in production and operating hours are not exceeded. The following equation shall be used to estimate monthly Pb emissions:

$$E_t = E_s + E_f$$

Where,

$E_s = 0.0086 \text{ lbs/hr} \times H$ (monthly hours of operation) $\times 1/2000$ (ton/pounds), stack emissions

$E_f = 0.1 \text{ lb Pb/tn iron}$ (uncontrolled Pb emission factor) $\times 0.2$ (percent of emissions not captured) $\times T_i$ (tons iron produced monthly), fugitive emissions

Sum the monthly emissions over any 12 month period to show compliance with the rolling limit.

3. Compliance with the visible emission limitation on the baghouse stack shall be determined by using U.S. EPA method 9, if required by the Ohio EPA.
4. Compliance with the visible emission limitation for the fugitive emissions identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

Issued: To be entered upon final issuance

VI. Miscellaneous Requirements

1. The requirements of this permit shall replace the requirements of PTI 02-3474 entirely.

Issued: To be entered upon final issuance**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Electric induction furnace #3, rated at 9 TPH, vented to fabric filter baghouse (modification to increase melt rate)	OAC rule 3745-31-05(A)(3)	PM/PM10: 0.006 gr/dscf and 1.85 lbs/hr from stack, 11.02 tons/year (6.38 tons from stack and 4.64 tons fugitive) Pb: 0.0086 lb/hr from stack, 0.339 ton/yr (0.0296 ton from stack and 0.309 ton fugitive) Visible emissions shall not exceed 5% opacity as a six minute average from the stack See B.2.a

2. Additional Terms and Conditions

- 2.a Particulate matter emissions from units F018, F019, and F031 are captured and controlled by the 150,000 acfm BACT fabric filter baghouse. This baghouse also controls particulate emissions from units F003, F008, F029, P026 and P027.
- 2.b The PM and Pb emission limitations stated in Section B.I.1. are the combined emission limitations for units F018, F019 and F031.

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

1. Emission Limitation: 0.006 gr/dscf and 1.85 pounds PM per hour from fabric filter stack

Applicable Compliance Method: Compliance shall be demonstrated by the emissions testing and procedures specified in section B. V.6 of these terms and conditions.

The hourly limit of 1.85 pounds per hour is based on a grain loading limit of 0.006 gr/dscf and the anticipated gas flow rate from emissions units F018, F019 and F031 of 36,000 SCFM.

2. Emission Limitation: 0.0086 pound Pb per hour from stack

Applicable compliance Method: Compliance with this limit shall be demonstrated by emissions testing if required by the Ohio EPA.

3. Compliance with the visible emission limitation on the baghouse stack shall be determined by using U.S. EPA method 9, if required by the Ohio EPA.

4. Emission Limitation: 11.02 tons PM/PM10 per year

Applicable compliance Method: Compliance with this limit shall be demonstrated by the Testing requirements in Section A.V.1. of these terms and conditions.

5. Emission Limitation: 0.339 ton Pb per year

Applicable compliance Method: Compliance with this limit shall be demonstrated by the Testing requirements in Section A.V.2. of these terms and conditions.

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

- a. The emission testing shall be conducted within 2 months after issuance of the permit.
- b. The emission testing shall be conducted to demonstrate compliance with the mass emission limit for particulate matter.

Issued: To be entered upon final issuance

- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1-5 of 40 CFR Part 60, Appendix A.
- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
- e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
- f. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

VI. Miscellaneous Requirements

None

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

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Electric induction furnace #2, rated at 9 TPH, vented to fabric filter baghouse (modification to increase melt rate)	OAC rule 3745-31-05(D)	PM/PM10: 11.02 tons per rolling 12-month period (6.38 tons from stack and 4.64 tons fugitive) Pb: 0.339 ton per rolling 12-month period (0.0296 ton from stack and 0.309 ton fugitive) See A.2.a.
	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) shall not apply to this emissions unit.
	OAC rule 3745-17-11	Less stringent than the limit from 3745-31-05(D)
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed twenty percent opacity as a six minute average, except as provided by rule.

Issued: To be entered upon final issuance**2. Additional Terms and Conditions**

- 2.a** The annual PM and Pb emission limitations stated in Section A.I.1. are the combined emission limitations for units F018, F019 and F031. Emissions units F018, F019 and F031 are three electric induction furnaces which share a common power supply. The maximum combined melt rate for the three furnaces is 10.8 tons per hour. The maximum melt rate for F018 is 9 tons per hour.
- 2.b** Particulate matter emissions from units F018, F019, and F031 are captured and controlled by the 150,000 acfm BACT fabric filter baghouse. This baghouse also controls particulate emissions from units F003, F008, F029, P026 and P027.

II. Operational Restrictions

- The pressure drop across the baghouse shall be maintained within the range of 2 to 7 inches of water while the emissions unit is in operation.
- The collection efficiency of the air pollution capture hoods for this emissions unit shall be sufficient to minimize or eliminate visible emissions of fugitive dust at all points of capture. The permittee shall maintain all hoods and enclosures in good operating condition. The collection efficiency shall be considered adequate if visible particulate emissions of fugitive dust do not exceed 10% opacity as a six-minute average.
- The maximum annual production rate of iron for emissions units F018, F019 and F031 shall not exceed 30,940 tons, based upon a rolling, 12-month summation of the production rates.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the production levels specified in the following table:

<u>Month</u>	<u>Cumulative Production</u>	<u>Maximum Allowable</u> (Tons iron)
1	2578	
1-2	5156	
1-3	7734	
1-4	10312	

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1-5	12890
1-6	15468
1-7	18046
1-8	20624
1-9	23202
1-10	25780
1-11	28358
1-12	30940

After the first 12 calendar months of operation following the issuance of this permit compliance with the annual production rate limitation shall be based upon a rolling, 12-month summation of the production rates.

4. The maximum annual operating hours for emissions units F018, F019 and F031 shall not exceed 6900, based upon a rolling, 12-month summation of the operating hours. Operating hours in a day are defined as the period of time beginning with the first charge of the day into any of the three furnaces and ending with the last metal tap of the day.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the operating hours levels specified in the following table:

<u>Month(s)</u>	<u>Cumulative Operating Hours</u>	<u>Maximum Allowable</u>
1	575	
1-2	1150	
1-3	1725	
1-4	2300	
1-5	2875	
1-6	3450	
1-7	4025	
1-8	4600	
1-9	5175	
1-10	5750	
1-11	6325	
1-12	6900	

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

III. Monitoring and/or Recordkeeping Requirements

Issued: To be entered upon final issuance

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a continuous basis.
2. The permittee shall maintain monthly records of the following information:
 - a. The total production rate in emissions units F018, F019 and F031 for each month.
 - b. Beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the production rates.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the total cumulative production rate for each calendar month.

3. The permittee shall maintain monthly records of the following information:
 - a. The operating hours for each month.
 - b. Beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the operating hours.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative operating hours for each calendar month.

IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month production rate limitation and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative production levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(1).
3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating hours limitation and, for the first 12 calendar months of operation following

Issued: To be entered upon final issuance

the issuance of this permit, all exceedances of the maximum allowable cumulative operating hours levels. These reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(1).

V. Testing Requirements

1. Emission Limitation: 11.02 tons PM/PM10 for any 12-month period.

Applicable compliance Method: Compliance with this limit is assumed provided that the unit is controlled by the baghouse and the restrictions in production and operating hours are not exceeded. The following equation shall be used to estimate monthly PM emissions:

$$E_t = E_s + E_f$$

Where,

$E_s = 1.85 \text{ lbs PM/hr} \times H$ (monthly hours of operation) $\times 1/2000$ (ton/pounds), stack emissions

$E_f = 1.5 \text{ lbs PM/tn iron}$ (uncontrolled PM emission factor) $\times 0.2$ (percent of emissions not captured) $\times T_i$ (tons iron produced monthly), fugitive emissions

Sum the monthly emissions over any 12 month period to show compliance with the rolling limit.

2. Emission Limitation: 0.339 ton Pb for any 12-month period.

Applicable compliance Method: Compliance with this limit is assumed provided that the unit is controlled by the baghouse and the restrictions in production and operating hours are not exceeded. The following equation shall be used to estimate monthly Pb emissions:

$$E_t = E_s + E_f$$

Where,

$E_s = 0.0086 \text{ lb Pb/hr} \times H$ (monthly hours of operation) $\times 1/2000$ (ton/pounds), stack emissions

$E_f = 0.1 \text{ lb Pb/tn iron}$ (uncontrolled Pb emission factor) $\times 0.2$ (percent of emissions not captured) $\times T_i$ (tons iron produced monthly), fugitive emissions

Sum the monthly emissions over any 12 month period to show compliance with the rolling limit.

2. Compliance with the visible emission limitation on the baghouse stack shall be determined by using U.S. EPA method 9, if required by the Ohio EPA.
3. Compliance with the visible emission limitation for the fugitive emissions identified above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40

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CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

VI. Miscellaneous Requirements

1. The requirements of this permit shall replace the requirements of PTI 02-720 entirely.

Issued: To be entered upon final issuance

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Electric induction furnace #2, rated at 9 TPH, vented to fabric filter baghouse (modification to increase melt rate)	OAC rule 3745-31-05(A)(3)	PM/PM10: 0.006 gr/dscf and 1.85 lbs/hr from stack, 11.02 tons/year (6.38 tons from stack and 4.64 tons fugitive) Pb: 0.0086 lb/hr from stack, 0.339 ton/yr (0.0296 ton from stack and 0.309 ton fugitive) Visible emissions shall not exceed 5% opacity as a six minute average from the stack See B.2.a

2. Additional Terms and Conditions

- 2.a Particulate matter emissions from units F018, F019, and F031 are captured and controlled by the 150,000 acfm BACT fabric filter baghouse. This baghouse also controls particulate emissions from units F003, F008,F029,P026 and P027.
- 2.b The PM and Pb emission limitations stated in Section B.I.1. are the combined emission limitations for units F018, F019 and F031.

Issued: To be entered upon final issuance

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

1. Emission Limitation: 0.006 gr/dscf and 1.85 pounds PM per hour from fabric filter stack

Applicable Compliance Method: Compliance shall be demonstrated by the emissions testing and procedures specified in section B.V.6 of these terms and conditions.

The hourly limit of 1.85 pounds per hour is based on a grain loading limit of 0.006 gr/dscf and the anticipated gas flow rate from emissions units F018,F019 and F031 of 36,000 SCFM.

2. Emission Limitation:0.0086 pound Pb per hour from stack

Applicable compliance Method: Compliance with this limit shall be demonstrated by emissions testing if required by the Ohio EPA.

3. Compliance with the visible emission limitation on the baghouse stack shall be determined by using U.S. EPA method 9, if required by the Ohio EPA.

4. Emission Limitation:11.02 tons PM/PM10 per year

Applicable compliance Method: Compliance with this limit shall be demonstrated by the Testing requirements in Section A.V.1 of these terms and conditions.

5. Emission Limitation: 0.339 ton Pb per year

Applicable compliance Method: Compliance with this limit shall be demonstrated by the Testing requirements in Section A.V.2. of these terms and conditions.

Emissions Unit ID: **F031**

6. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. The emission testing shall be conducted within 2 months after issuance of the permit.
 - b. The emission testing shall be conducted to demonstrate compliance with the mass emission limit for particulate matter.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1-5 of 40 CFR Part 60, Appendix A.
 - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
 - e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
 - f. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

VI. Miscellaneous Requirements

None