



Environmental
Protection Agency

Ted Strickland, Governor
Lee Fisher, Lt. Governor
Chris Korleski, Director

11/18/2010

Certified Mail

Jeff Bindas
V & M Star
2669 Martin Luther King Jr. Blvd.
Youngstown, OH 44510

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0250110625
Permit Number: P0107088
Permit Type: Administrative Modification
County: Mahoning

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

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of 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 permit. A public notice will appear in the Ohio EPA Weekly Review and the local newspaper, Youngstown-Vindicator. A copy of the public notice and the draft permit are enclosed. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Issued Air Pollution Control Permits" link. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall
Permit Review/Development Section
Ohio EPA, DAPC
122 South Front Street
Columbus, Ohio 43215

and Ohio EPA DAPC, Northeast District Office
2110 East Aurora Road
Twinsburg, OH 43087

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified in writing if a public hearing is scheduled. A decision on issuing a final permit-to-install will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Ohio EPA DAPC, Northeast District Office at (330)425-9171.

Sincerely,

Michael W. Ahern, Manager
Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA Region 5 - *Via E-Mail Notification*
Ohio EPA-NEDO; Pennsylvania; West Virginia



Permit Strategy Write-Up

1. Permitting Action Description:

V & M Star obtained a Prevention of Significant Deterioration (PSD) permit to install on April 10, 2009, permit number P0103995. This permitting action P0107088 is to update P0103995 based upon V & M Star's recent detailed design engineering analysis for the construction of their mill expansion as denoted in permitting action P0103995.

2. Source Description Changes:

The following identifies the nature of the design changes:

- The number and size of exempt natural gas fired ladle heater burners are changed;
The number and size of exempt miscellaneous small natural gas burners in the melt shop and caster area are changed;
The size and number of exempt new standby/emergency generators are changed;
Three small exempt cooling towers are added;
Roadways layouts are revised with additional roadways surfaces to be paved. An updated traffic study results in a reduction of predicted fugitive dust emissions;
The FQM piercing and mandrel mill scrubber design flow is increased to provide for improved PM capture and in-plant air quality;
The maximum firing capacities of the natural gas fired pipe austenitizing and tempering furnaces are increased;
The Abrasives Manufacturing Process is deleted from the project resulting in elimination of the permitted melter furnace and product handling sources and the exempt de minimis activities;
The Vacuum Tank Degasser maximum annual steel throughput is reduced;
Cooling Tower 7 and 8 design cooling water flow is reduced; and finally,
The equipment exhaust stack heights are increased for the natural gas fired furnaces, the FQM scrubber, and the MPM pipe mill scrubber.

See detailed changes in application number M0001015.

3. Permit Emission Changes:

Table with 7 columns: Emissions Basis, PM10, CO, NOx, SO2, VOC, Pb. Rows include 2010 design revisions, 2008 application & PTI, and Emissions change from permit.

4. Conclusion:

None of the above changes trigger the need to obtain a new PSD permit and therefore this permitting action is deemed to be an administrative change to permitting action P0103995.

5. Please provide additional notes or comments as necessary:

None

6. Total Permit Allowable Emissions Summary (for informational purposes only):

<u>Pollutant</u>	<u>Tons Per Year</u>
PM10	180.5
CO	3110.6
NOx	566.5
SO2	176.5
VOC	142.4
Pb	1.12

PUBLIC NOTICE PUBLIC HEARING
OHIO ENVIRONMENTAL PROTECTION AGENCY
ISSUANCE OF DRAFT PERMIT TO INSTALL
SUBJECT TO
PREVENTION OF SIGNIFICANT DETERIORATION REVIEW
TO V and M Star

Public notice is hereby given that the Ohio Environmental Protection Agency (EPA) has issued, on November , 2010, a draft action of Permit to Install (PTI) application number P0107088 to V and M Star, Youngstown, Ohio. This draft permit proposes to revise some of the limitations and descriptions associated with some of the operations listed in PTI P0103995, issued on April 10, 2009, based upon the company's recent detailed design engineering analysis of the operations listed in PTI P0103995 that are located at 2669 Martin Luther King, Jr. Boulevard, Youngstown, Ohio, 44510.

Air emissions will be reduced by this permitting action based upon the above mentioned analysis such that there will be no change in the PSD analysis documented in PTI P0103995 and the associated air dispersion analysis which is characterized and repeated from the previous public notice below for PTI P0103995. The proposed allowable criteria pollutant air emission rates at the facility are listed below, in tons per year for this permitting action.

Pollutant	Tons/yr
Particulate	180.5
PM10	180.5
NOx	545.8
CO	3110.6
VOC	139.4
SO2	176.5
Pb	1.12

This facility is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by U.S. EPA (40 CFR 52.21) and the Ohio EPA permit to install requirements (OAC 3745-31).

The U.S. EPA allows sources to consume no more than the maximum available ambient PSD increments for each PSD pollutant. The Ohio EPA allows PSD sources to consume no more than one half the available increment, with some exceptions. The PM10 and SO2 impacts of this expansion are above one half of the increment, but the areal extent is localized. This facility has demonstrated that the impacts from the expansion is less than the available increment. Based on this analysis, the project complies with both the federal and state increment requirements for PM10 and SO2.

There are no PSD increments for CO and Pb. For these pollutants, Ohio EPA only allows a source to have impacts up to one quarter of the National Ambient Air Quality Standards. Based on this analysis, the project complies with this requirement for CO and Pb.

Within 30 days from the date of this notice, any interested party may submit comments or request a public hearing.

Comments or request a public hearing are to be sent to Ed Perez, Ohio Environmental Protection Agency, Northeast District Office, Division of Air Pollution Control, 2110 East Aurora Road Twinsburg, Ohio 44087.

Further information concerning this application, which is available for public inspection, may be secured from the Ohio Environmental Protection Agency, Northeast District Office at the above address during normal business hours. Telephone number: (330) 425-9171.



DRAFT

**Division of Air Pollution Control
Permit-to-Install
for
V & M Star**

Facility ID: 0250110625
Permit Number: P0107088
Permit Type: Administrative Modification
Issued: 11/18/2010
Effective: To be entered upon final issuance



Division of Air Pollution Control
Permit-to-Install
for
V & M Star

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Authorization

Facility ID: 0250110625
Facility Description: Steel manufacturing facility
Application Number(s): M0001015
Permit Number: P0107088
Permit Description: Permit modification to PTI No. P0103995
Permit Type: Administrative Modification
Permit Fee: \$2,250.00 *DO NOT send payment at this time, subject to change before final issuance*
Issue Date: 11/18/2010
Effective Date: To be entered upon final issuance

This document constitutes issuance to:

V & M Star
2669 Martin Luther King Jr. Blvd.
Youngstown, OH 44510

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

Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Northeast District Office
2110 East Aurora Road
Twinsburg, OH 43087
(330)425-9171

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski
Director



Authorization (continued)

Permit Number: P0107088
Permit Description: Permit modification to PTI No. P0103995

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

Emissions Unit ID:	F001
Company Equipment ID:	Roadways & parking
Superseded Permit Number:	P0103995
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P014
Company Equipment ID:	FQM Pipemill
Superseded Permit Number:	P0103995
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P016
Company Equipment ID:	Pipe Aust Furnace #1
Superseded Permit Number:	P0103995
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P017
Company Equipment ID:	Pipe Temp Furnace #1
Superseded Permit Number:	P0103995
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P018
Company Equipment ID:	Pipe Aust Furnace #2
Superseded Permit Number:	P0103995
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P019
Company Equipment ID:	Pipe Temp Furnace #2
Superseded Permit Number:	P0103995
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P024
Company Equipment ID:	VTD Steam Condenser
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P025
Company Equipment ID:	Cooling Tower 7/8
Superseded Permit Number:	P0103995
General Permit Category and Type:	Not Applicable



A. Standard Terms and Conditions



1. Federally Enforceable Standard Terms and Conditions

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

2. Severability Clause

- a) A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.
- b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

3. General Requirements

- a) The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification.

- b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c) This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d) This permit does not convey any property rights of any sort, or any exclusive privilege.
- e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

4. Monitoring and Related Record Keeping and Reporting Requirements

- a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - (1) The date, place (as defined in the permit), and time of sampling or measurements.
 - (2) The date(s) analyses were performed.
 - (3) The company or entity that performed the analyses.
 - (4) The analytical techniques or methods used.
 - (5) The results of such analyses.
 - (6) The operating conditions existing at the time of sampling or measurement.
- b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Ohio EPA DAPC, Northeast District Office.

- (2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Ohio EPA DAPC, Northeast District Office. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.
 - (3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the Ohio EPA DAPC, Northeast District Office every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
 - (4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the Ohio EPA DAPC, Northeast District Office in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

6. Compliance Requirements

- a) The emissions unit(s) identified in this Permit shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.
- b) 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.
- c) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

- (1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
 - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - (4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- d) The permittee shall submit progress reports to the Ohio EPA DAPC, Northeast District Office concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
- (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - (2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

7. Best Available Technology

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

8. Air Pollution Nuisance

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

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Ohio EPA DAPC, Northeast District Office.

- 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 Ohio EPA DAPC, Northeast District Office. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

10. Applicability

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

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

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

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

No emissions unit certified by the authorized official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

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

12. Permit-To-Operate Application

The permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77. The permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if 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).

13. Construction Compliance Certification

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

- a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.



Effective Date: To be entered upon final issuance

- b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

14. Public Disclosure

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

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

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

16. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

17. Permit Transfers

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

18. Risk Management Plans

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

19. Title IV Provisions

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

B. Facility-Wide Terms and Conditions



1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

a) None.

2. The following emissions units (EU) are also increasing emissions as part of this project:

EU	BACT	Emissions
VTD boilers	AP-42 emission factors 0.10 lb/MMBtu	1.14 TPY of PM/PM10 12.60 TPY of CO 0.09 TPY of SO2 0.83 TPY of VOC. 15.30 TPY of NOx.
FQM mandrel furnace	AP-42 emission factors 0.12 lb/MMBtu	0.02 TPY of PM/PM10 0.25 TPY of CO 0.002 TPY of SO2 0.017 TPY of VOC. 0.37 TPY of NOx.
Standby/emergency generators which are the following: 2 FQM pipe mill each one = 2 MW 1 administration each = 150 kw 3 FQM pipe mill each one = 50kW 1 pond each = 50 kW	NSPS, 40 CFR Subpart III	0.10 TPY of PM/PM10 1.71 TPY of CO 2.99 TPY of NMHC + NOx 0.003 TPY of SO2 VOC emission included with NOx
Five (5) ladle preheaters, natural gas burners each ≤ 8 MMBtu/hr, which will be installed if the option to install a new EAF (P910) is selected	AP-42 emission factors	1.22 TPY PM/PM10 13.51 TPY of CO 16.09 TPY of NOx 0.10 TPY of SO2 0.88 TPY of VOC.
Misc. Natural Gas Burners each ≤ 10 MMBtu/hr which are the following units ladle & tundish dryers tundish preheaters Shroud preheaters Caster cutting torches	AP-42 emission factors	1.24 TPY PM/PM10 13.72 TPY of CO 16.34 TPY of NOx 0.10 TPY of SO2 0.90 TPY of VOC.



Effective Date: To be entered upon final issuance

Three (3) new small cooling towers: cooling tower 9 cooling tower backup (identical to cooling tower 9) cooling tower 10	0.005% drift performance	0.24 TPY PM/PM10
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In-house scrap torch cutting activities	AP-42 emission factors	0.02 TPY PM/PM10
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- The following emissions units contained in this permit are subject to MACT Subpart YYYYYY: Electric Arc Furnace (P905 or, if installed in the future, P910). The complete MACT requirements, including the MACT General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the appropriate Ohio EPA District office or local air agency.

C. Emissions Unit Terms and Conditions



1. F001, Roadways & parking

Operations, Property and/or Equipment Description:

Vehicle traffic and parking

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-10 through OAC rule 3745-31-20	<p>Fugitive particulate matter (PM) shall not exceed 38.3 tons/year.</p> <p>Fugitive particulate matter of 10 microns or less shall not exceed 7.7 tons/year.</p> <p>All PM/PM10 are considered filterable PM.</p> <p>No visible PM/PM10 except for one minute during any 60-minute period for paved roadways and parking area.</p> <p>No visible PM/PM10 except for 3 minutes during any 60-minute period for unpaved roadways and parking areas.</p> <p>Best available control measures that are sufficient to minimize or eliminate visible PM/PM10 of fugitive dust</p> <p>See b)(2)b. through b)(2)g.</p>
b.	OAC rule 3745-17-07(B)(4)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-10 through OAC rule 3745-31-20.
c.	OAC rule 3745-17-07(B)(5)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		rule 3745-31-10 through OAC rule 3745-31-20.
d.	OAC rule 3745-17-08(B)	See b)(2)b. through b)(2)g.
e.	OAC rule 3745-05(A)(3)	The requirements of this rule also include compliance with the requirements of OAC rules 3745-31-10 thru 20 for PM and PM10.

(2) Additional Terms and Conditions

- a. The requirement of this Permit to Install supersedes the requirements specified in the terms and conditions of EU ID No. F001 in the PSD permit No. P0103995 (issued on April 10, 2009).
- b. The permittee shall employ best available control measures on all paved roadways and parking areas, and all unpaved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's application, the permittee has committed to treat the paved roadways and parking areas by sweeping and watering/flushing at sufficient treatment frequencies to ensure compliance. In accordance with the permittee's application, the permittee has committed to treat the unpaved roadways and parking areas by application of chemical stabilization/dust suppressants and/or watering at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- c. The needed frequencies of implementation of the control measures shall be determined by the permittee's inspections pursuant to the monitoring section of this permit. Implementation of the control measures shall not be necessary for paved roadways and parking areas or unpaved roadways and parking areas that are covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use.
- d. The permittee shall promptly remove, in such a manner as to minimize or prevent resuspension, earth and/or other material from paved streets onto which such material has been deposited by trucking or earth moving equipment or erosion by water or other means.
- e. Any unpaved roadway or parking area that is subsequently paved may be controlled with the control measure(s) specified above for paved roadways and parking areas.
- f. Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered at all times if the control measure is necessary for the materials being transported.

- g. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the best available technology requirements of OAC rule 3745-31-10 through OAC rule 3745-31-20.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) Except as otherwise provided in this section, the permittee shall perform inspections of each of the roadway segments and parking areas in accordance with the following frequencies:

<u>paved roadways and parking areas</u>	<u>minimum inspection frequency</u>
P1 – Entry road & parking	weekly
P2 – Mill Bldg east rd & apron	weekly
P3 – Center road	weekly
P4 – Service road	weekly
P5 – Scalehouse road	weekly
P6 – Melt shop road – south	weekly
P7 – Melt shop road – north	weekly
P8 – North road	weekly
P9 – South road	weekly
P10 – FQM road – east	weekly
P11 – FQM road – south	weekly
P12 – FQM road – west	weekly
P13 – FQM road – north	weekly
P14 – FQM mill entry road	weekly
P15 – FQM employee entry road / parking	weekly
P16 – Tube City IMS – entry	weekly



Road / parking

P17 – Tube City IMS – bypass road weekly

unpaved roadways and parking areas minimum inspection frequency

U1 - G-Bay weekly

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

The permittee shall prepare a written inspection and monitoring plan and submit the plan to the Ohio EPA DAPC, Northeast District Office, for review and approval. Said plan may be periodically revised as appropriate based on observations and effectiveness of the dust control program.

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

- (4) The information required in d)(3)d. shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

e) Reporting Requirements

- (1) The permittee shall submit deviation reports that identify any of the following occurrences:
a. each week during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and
b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.

- (2) The deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

f) Testing Requirements

- (1) Emission Limitation:

No visible PM/PM10 from paved roadways and parking areas except for a period of time not to exceed one minute during any 60-minute observation period.

Applicable Compliance Method:

If required, compliance with the visible PM/PM10 limitation listed above shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources").

- (2) Emission Limitation:

No visible PM/PM10 from unpaved roadways and parking areas except for a period of time not to exceed 3 minutes during any 60-minute observation period.

Applicable Compliance Method:

If required, compliance with the visible PM/PM10 limitation listed above shall be determined in accordance with Test Method 22 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)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

- (3) Emission Limitation:

7.7 tons/year of fugitive PM10.

Applicable Compliance Method:

Compliance with fugitive PM10 limitation shall be determined by using the emission factor equations in Section 13.2.1, in Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume 1 (revised 11/06) for paved roadways, and the emission factor equations in Section 13.2.2, in Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume 1 (revised 11/06) for unpaved roadways.

- (4) Emission Limitation:

38.3 tons/year of fugitive particulate matter

Applicable Compliance Method:

Compliance with fugitive PM limitation shall be determined by using the emission factor equations in Section 13.2.1, in Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume 1 (revised 11/06) for paved roadways, and the emission factor equations in Section 13.2.2, in Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume 1 (revised 11/06) for unpaved roadways.

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- g) Miscellaneous Requirements
 - (1) None.



2. P014, FQM Pipemill

Operations, Property and/or Equipment Description:

FQM Pipemill with wet scrubber system

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-10 through OAC rule 3745-31-20	PM/PM10 emissions shall not exceed 0.004 gr/dscf, 6.2 lbs/hour and 27.16 tons/year based upon a rolling 12-month summation. All PM/PM10 are considered filterable PM. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1).
b.	OAC 3745-17-11	The emission limitation required by this applicable rule is less stringent than or equivalent to the emission limitation established pursuant to OAC rule 3745-31-10 through OAC rule 3745-31-20.
c.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.
d.	OAC rule 3745-31-05(A)(3)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-10 thru for 20 for PM/PM10.

- (2) Additional Terms and Conditions
- a. Based on the "Prevention of Significant Deterioration" (PSD) analysis conducted to ensure the application of "Best Available Control Technology" (BACT), it has been determined that the rod deck venturi scrubber, and acceptance of 0.004 grains/dscf scrubber outlet limitation constitute BACT for this emission unit. The emission limitations based on the BACT requirements are listed under OAC rule 3745-31-(10) thru (20) above.
 - b. The requirement of this Permit to Install supersedes the requirements specified in the terms and conditions of EU ID No. P014 in the PSD permit No. P0103995 (issued on April 10, 2009).
- c) Operational Restrictions
- (1) The emissions from this emissions unit shall be vented to a rod deck venturi scrubber at all times the emissions unit is in operation.
- d) Monitoring and/or Recordkeeping Requirements
- (1) In order to maintain compliance with the applicable emission limitations contained in this permit, the acceptable range or limit for the pressure drop across the scrubber, and the scrubber liquid flow rate shall be based upon the manufacturer's specifications until such time as any required emission testing is conducted and the appropriate range for each parameter is established to demonstrate compliance.
 - (2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop across the scrubber (in pounds per square inch, gauge, or inches water gauge), and the scrubber liquid flow rate (in gallons per minute) during operation of this emissions unit, including periods of startup and shutdown. The permittee shall record the pressure drop across the scrubber and the scrubber liquid's flow rate on a once per shift basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

Whenever the monitored value for any parameter deviates from the range(s) or minimum limit(s) specified in this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

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

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the control equipment parameters

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within the acceptable range(s), or at or above the minimum limit(s) specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- a. a description of the corrective action;
- b. the date the corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the pressure drop and flow rate readings immediately after the corrective action was implemented; and
- f. the name(s) of the personnel who performed the work.

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

These range(s) and/or limit(s) for the pressure drop and liquid flow rate are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA, Northeast District Office. The permittee may request revisions to the permitted range or limit for the pressure drop or liquid flow rate based upon information obtained during future emission tests that demonstrate compliance with the allowable emission rates for this emissions unit. In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a "minor permit modification".

- (3) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. An EPA Method 9 opacity analysis shall be required upon OEPA request, but is not required for the daily or weekly visible emissions checks. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

Notwithstanding the frequency of reporting requirements specified above, the permittee may reduce the frequency of visual observations for this emissions unit from daily to weekly if the following conditions are met:

- f. for any 3 consecutive calendar months (excluding scheduled maintenance-shut down) this emissions unit's visual observations indicated no visible emissions; and
- g. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to daily readings for this emissions unit if visible emissions are observed. The permittee may again reduce the frequency of visible emissions observations from daily to weekly after obtaining 3 consecutive calendar months (excluding scheduled maintenance-shut down) of observations with no visible emissions for this emissions unit.

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 daily 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.

e) Reporting Requirements

- (1) The permittee shall submit quarterly reports that identify the following information concerning the operation of the venturi scrubber during the operation of the controlled emissions unit(s):
 - a. each period of time when the pressure drop across the scrubber, and/or liquid flow rate were outside of the appropriate range or limit specified by the manufacturer and outside of the acceptable range following any required compliance demonstration;
 - b. an identification of each incident of deviation described in "a" (above) where a prompt investigation was not conducted;
 - c. an identification of each incident of deviation described in "a" where prompt corrective action, that would bring the pressure drop, and/or liquid flow rate, into compliance with the acceptable range or limit, was determined to be necessary and was not taken; and
 - d. an identification of each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s).

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

- (2) The permittee shall submit semiannual written reports that (a) identify all weeks during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate any visible particulate emissions. These reports shall be submitted to the Ohio EPA, Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

f) Testing Requirements

- (1) Emission Limitation:

PM/PM10 emissions shall not exceed 0.004 grains per dry standard cubic foot of exhaust gases.

Applicable Compliance Method:

Compliance shall be determined by emission testing as specified in f)(5) .

- (2) Emission Limitation:

PM/PM10 emissions shall not exceed 6.2 pounds per hour.

Applicable Compliance Method:

Compliance shall be determined by emission testing as specified in f)(5).

- (3) Emission Limitation:

PM/PM10 emissions shall not exceed 27.16 tons per year based upon a rolling 12-month summation.

Applicable Compliance Method:

The annual PM/PM10 emission limitation was developed by multiplying the short-term allowable PM/PM10 emission limitation (6.2 lbs/hour) by the maximum annual hours of operation (8760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

- (4) Emission Limitation:

20% opacity of visible emissions as a 6-minute average.

Applicable Compliance Method:

Compliance with the visible emission limitation 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)(1) of OAC rule 3745-17-03.

(5) 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 3 months after startup of this emissions unit.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for PM/PM10.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

PM - Method 5 of 40 CFR Part 60, Appendix A.

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 Ohio EPA Northeast District Office.

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 Northeast District Office. 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 refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA Northeast District Office 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 Ohio EPA Northeast District Office 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 Ohio EPA Northeast District Office.

g) Miscellaneous Requirements

(1) None.



3. P016, Pipe Aust Furnace #1

Operations, Property and/or Equipment Description:

Natural gas fired Pipe Austenitizing Furnace #1 rated at 63.1 MMBt/hr

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-10 through OAC rule 3745-31-20	<p>PM/PM10 emissions shall not exceed 0.36 lb/hour and 0.84 ton/year based upon a rolling 12-month summation.</p> <p>All PM/PM10 are considered filterable PM.</p> <p>NOx emissions shall not exceed 0.08 lb/MMBtu, 3.83 lbs/hour, and 8.98 tons/year based upon a rolling 12-month summation.</p> <p>CO emissions shall not exceed 3.95 lbs/hour and 9.24 tons/yr based upon a rolling 12-month summation.</p> <p>VOC emissions shall not exceed 0.26 lb/hour and 0.61 ton/year based upon a rolling 12-month summation.</p> <p>See b)(2)a.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1).</p>
b.	OAC 3745-17-11	See b)(2)b.
c.	OAC 3745-17-10	See b)(2)c.
e.	OAC rule 3745-05(A)(3)(a)(ii)	See b)(2)d.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
f.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.
g.	OAC rule 3745-18-06	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-10 thru 20 as listed in their PSD application of December 16, 2008.

(2) Additional Terms and Conditions

- a. Based on the "Prevention of Significant Deterioration" (PSD) analysis conducted to ensure the application of "Best Available Control Technology" (BACT), it has been determined that the use of natural gas as fuel, good combustion practices, low NOx burner technology, acceptance of a PE/PM10 limitation of 7.6 lb/MMscf, acceptance of CO limitation of 84 lb/MMscf, acceptance of VOC limitation of 5.5 lb/MMscf, and acceptance of NOx limitation of 0.08 lb/MMBtu constitute BACT for this emissions unit. The emission limitations are based on the BACT requirements listed under OAC rule 3745-31-(10) thru (20) above.
- b. The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight, as defined in OAC rule 3745-17-01(B)(17), is equal to zero.
- c. The burning of fuel in this unit is for the primary purpose of producing heat in which the products of combustion come into direct contact with materials being processed. It is, therefore, exempt from emission limitations and control requirements contained in OAC rule 3745-17-10.
- d. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the uncontrolled PE/PM10, CO, NOx, SO2, and VOC emissions from this air contaminant source since the potential to emit for PE/PM10, CO, NOx, SO2, and VOC is less than ten tons per year.
- e. The hourly emission limitations listed in b)(1) are based upon the potential to emit of this emissions unit and therefore no record keeping and reporting requirements of those limitations are necessary.
- f. The requirement of this Permit to Install supersedes the requirements specified in the terms and conditions of EU ID No. P016 in the PSD permit No. P0103995 (issued on April 10, 2009).

- c) Operational Restrictions
 - (1) The permittee shall use only natural gas as fuel for this emissions unit.
- d) Monitoring and/or Recordkeeping 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, quantity, and quality of fuel burned in this emissions unit.
 - (2) The permittee shall maintain monthly records of the following information:
 - a. the quantity of natural gas burned in this emissions unit in MMscf for each calendar month;
 - b. the monthly PM/PM10, VOC, NOx, and CO emissions; and,
 - c. the rolling, 12-month summation of the PM/PM10, VOC, NOx, and CO emissions.
- e) Reporting Requirements
 - (1) The permittee shall submit quarterly deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit.
 - (2) The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of:
 - a. the rolling, 12-month and PM/PM10, VOC, NOx, and CO emission limitations for this emissions unit in b)(1).
- f) Testing Requirements
 - (1) Emission Limitation:

20% opacity of visible emissions as a 6-minute average.

Applicable Compliance Method:

If required, compliance with the visible emission limitation 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)(1) of OAC rule 3745-17-03.
 - (2) Emission Limitation:

NOx emissions shall not exceed 0.08 lb/MMBtu.

Applicable Compliance Method:

If required by the Ohio EPA, compliance with the NO_x emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 7.

(3) Emission Limitation:

NO_x emissions shall not exceed 3.83 lbs/hour.

Applicable Compliance Method:

Compliance shall be based on the following calculation by using emission factors supplied by the manufacturer for natural gas combustion and the simultaneous capacity of the gas burners.

$$E(\text{NO}_x) = 47.9 \text{ mmBtu/hr} \times 0.08 \text{ lb NO}_x/\text{mmBtu} \text{ (mfg. emission factor)} = 3.83 \text{ lbs/hr.}$$

(4) Emission Limitation:

NO_x emissions shall not exceed 8.98 tons per year based upon a rolling 12-month summation.

Applicable Compliance Method:

To determine the annual NO_x emission rate from burning natural gas, the following equation shall be used:

$$E = (A)(B)(C) / D$$

where:

E = annual NO_x emissions, in tons per year.

A = emission factor supplied by the manufacturer (lb/MMBtu).

B = natural gas heat content, 1020 Btu/scf.

C = annual natural gas usage based upon the record keeping requirements specified in d)(2)a. of this permit, in MMscf/yr.

D = 2000 lbs/ton.

(5) Emission Limitation:

CO emissions shall not exceed 3.95 lbs/hour.

Applicable Compliance Method:

To determine the CO emission rate from burning natural gas, the following equation shall be used:

$$E = (A)(B)$$

where:

E = CO emission rate from burning natural gas, in lb/hr.

A = 84 lbs/MMscf, emission factor for CO from burning natural gas from AP-42, Section 1.4 Natural Gas Combustion, Table 1.4-2, 7/98.

B = 0.0470 MMscf/hr, the simultaneous natural gas used in this emissions unit in an hour.

(6) Emission Limitation:

CO emissions shall not exceed 9.24 tons per year based upon a rolling 12-month summation.

Applicable Compliance Method:

Compliance with the annual CO emission limitation shall be determined by multiplying the emission factor of 84 lbs/MMscf (from AP-42, Table 1.4-1, 7/98 version) by the annual natural gas fuel usage (MMscf), and dividing by 2,000 lbs/ton. The annual natural gas fuel usage should be based upon the record keeping requirements specified in d)(2)a. of this permit.

(7) Emission Limitation:

PM/PM10 emissions shall not exceed 0.36 lb per hour.

Applicable Compliance Method:

To determine the particulate emission rate from burning natural gas, the following equation shall be used:

$$E = (A)(B)$$

where:

E = particulate emission rate from burning natural gas, in lb/hr.

A = 7.6 lbs/MMscf, emission factor for total particulate material from burning natural gas from AP-42, Section 1.4 Natural Gas Combustion, Table 1.4-2, 7/98.

B = 0.0470 MMscf/hr, the simultaneous natural gas used in this emissions unit in an hour.

(8) Emission Limitation:

PM/PM10 emissions shall not exceed 0.84 ton per year based upon a rolling 12-month summation.

Applicable Compliance Method:

To determine the annual particulate emission rate for this emissions unit, the following equation shall be used:

$$E = (A)(B)/C$$

where:

E = annual PM/PM10 emissions.

A = annual natural gas usage based upon the record keeping requirements specified in d)(2)a. of this permit, MMscf/yr.

B = 7.6 lbs/MMscf, natural gas combustion AP-42 emission factor (Section 1.4, Table 1.4-2, version 7/98).

C = 2000 lbs/ton.

(9) Emission Limitation:

VOC emissions shall not exceed 0.26 lb per hour.

Applicable Compliance Method:

To determine the VOC emission rate from burning natural gas, the following equation shall be used:

$$E = (A)(B)$$

where:

E = VOC emission rate from burning natural gas, in lb/hr.

A = 5.5 lbs/MMscf, emission factor for VOC from burning natural gas from AP-42, Section 1.4 Natural Gas Combustion, Table 1.4-2, 7/98.

B = 0.0470 MMscf/hr, the simultaneous natural gas used in this emissions unit in an hour.

(10) Emission Limitation:

VOC emissions shall not exceed 0.61 ton per year based upon a rolling 12-month summation.

Applicable Compliance Method:

To determine the annual VOC emission rate for this emissions unit, the following equation shall be used:

$$E = (A)(B)/C$$



where:

E = annual VOC emissions.

A = annual natural gas usage based upon the record keeping requirements specified in d)(2)a. of this permit, MMscf/yr.

B = 5.5 lbs/MMscf, natural gas combustion AP-42 emission factor (Section 1.4, Table 1.4-2, version 7/98).

C = 2000 lbs/ton.

g) Miscellaneous Requirements

(1) None.



4. P017, Pipe Temp Furnace #1

Operations, Property and/or Equipment Description:

Natural gas fired Pipe Tempering Furnace #1 rated at 47.5 MMBtu/hr

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-10 through OAC rule 3745-31-20	<p>PM/PM10 emissions shall not exceed 0.27 lb/hour and 0.65 ton/year based upon a rolling 12-month summation.</p> <p>All PM/PM10 are considered filterable PM.</p> <p>NOx emissions shall not exceed 0.08 lb/MMBtu, 2.86 lbs/hour, and 6.94 tons/year based upon a rolling 12-month summation.</p> <p>CO emissions shall not exceed 2.95 lbs/hour and 7.14 tons/yr based upon a rolling 12-month summation.</p> <p>VOC emissions shall not exceed 0.19 lb/hour and 0.47 ton/year based upon a rolling 12-month summation.</p> <p>See b)(2)a.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1).</p>
b.	OAC 3745-17-11	See b)(2)b.
c.	OAC 3745-17-10	See b)(2)c.
e.	OAC rule 3745-05(A)(3)(a)(ii)	See b)(2)d.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
f.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.
g.	OAC rule 3745-18-06	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-10 thru 20 as listed in their PSD application of December 16, 2008.

(2) Additional Terms and Conditions

- a. Based on the "Prevention of Significant Deterioration" (PSD) analysis conducted to ensure the application of "Best Available Control Technology" (BACT), it has been determined that the use of natural gas as fuel, good combustion practices, low NOx burner technology, acceptance of a PE/PM10 limitation of 7.6 lb/MMscf, acceptance of CO limitation of 84 lb/MMscf, acceptance of VOC limitation of 5.5 lb/MMscf, and acceptance of NOx limitation of 0.08 lb/MMBtu constitute BACT for this emissions unit. The emission limitations are based on the BACT requirements listed under OAC rule 3745-31-(10) thru (20) above.
- b. The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight, as defined in OAC rule 3745-17-01(B)(17), is equal to zero.
- c. The burning of fuel in this unit is for the primary purpose of producing heat in which the products of combustion come into direct contact with materials being processed. It is, therefore, exempt from emission limitations and control requirements contained in OAC rule 3745-17-10.
- d. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the uncontrolled PE/PM10, CO, NOx, SO2, and VOC emissions from this air contaminant source since the potential to emit for PE/PM10, CO, NOx, SO2, and VOC is less than ten tons per year.
- e. The hourly emission limitations listed in b)(1) are based upon the potential to emit of this emissions unit and therefore no record keeping and reporting requirements of those limitations are necessary.
- f. The requirement of this Permit to Install supersedes the requirements specified in the terms and conditions of EU ID No. P017 in the PSD permit No. P0103995 (issued on April 10, 2009).

- c) Operational Restrictions
 - (1) The permittee shall use only natural gas as fuel for this emissions unit.
- d) Monitoring and/or Recordkeeping 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, quantity, and quality of fuel burned in this emissions unit.
 - (2) The permittee shall maintain monthly records of the following information:
 - a. the quantity of natural gas burned in this emissions unit in MMscf for each calendar month;
 - b. the monthly PM/PM10, VOC, NOx, and CO emissions; and,
 - c. the rolling, 12-month summation of the PM/PM10, VOC, NOx, and CO emissions.
- e) Reporting Requirements
 - (1) The permittee shall submit quarterly deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit.
 - (2) The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of:
 - a. the rolling, 12-month and PM/PM10, VOC, NOx, and CO emission limitations for this emissions unit in b)(1).
- f) Testing Requirements
 - (1) Emission Limitation:

20% opacity of visible emissions as a 6-minute average.

Applicable Compliance Method:

If required, compliance with the visible emission limitation 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)(1) of OAC rule 3745-17-03.
 - (2) Emission Limitation:

NOx emissions shall not exceed 0.08 lb/MMBtu.



Applicable Compliance Method:

If required by the Ohio EPA, compliance with the NOx emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 7.

(3) Emission Limitation:

NOx emissions shall not exceed 2.86 lbs/hour.

Applicable Compliance Method:

Compliance shall be based on the following calculation by using emission factors supplied by the manufacturer for natural gas combustion and the simultaneous capacity of the gas burners.

$$E(\text{NOx}) = 35.8 \text{ mmBtu/hr} \times 0.08 \text{ lb NOx/mmBtu (mfg. emission factor)} = 2.86 \text{ lbs/hr.}$$

(4) Emission Limitation:

NOx emissions shall not exceed 6.94 tons per year based upon a rolling 12-month summation.

Applicable Compliance Method:

To determine the annual NOx emission rate from burning natural gas, the following equation shall be used:

$$E = (A)(B)(C) / D$$

where:

E = annual NOx emissions, in tons per year.

A = emission factor supplied by the manufacturer (lb/MMBtu).

B = natural gas heat content, 1020 Btu/scf.

C = annual natural gas usage based upon the record keeping requirements specified in d)(2)a. of this permit, in MMscf/yr.

D = 2000 lbs/ton.

(5) Emission Limitation:

CO emissions shall not exceed 2.95 lbs/hour.

Applicable Compliance Method:

To determine the CO emission rate from burning natural gas, the following equation shall be used:

$$E = (A)(B)$$

where:

E = CO emission rate from burning natural gas, in lb/hr.

A = 84 lbs/MMscf, emission factor for CO from burning natural gas from AP-42, Section 1.4 Natural Gas Combustion, Table 1.4-2, 7/98.

B = 0.0351 MMscf/hr, the simultaneous natural gas used in this emissions unit in an hour.

(6) Emission Limitation:

CO emissions shall not exceed 7.14 tons per year based upon a rolling 12-month summation.

Applicable Compliance Method:

Compliance with the annual CO emission limitation shall be determined by multiplying the emission factor of 84 lbs/MMscf (from AP-42, Table 1.4-1, 7/98 version) by the annual natural gas fuel usage (MMscf), and dividing by 2,000 lbs/ton. The annual natural gas fuel usage should be based upon the record keeping requirements specified in d)(2)a. of this permit.

(7) Emission Limitation:

PM/PM10 emissions shall not exceed 0.27 lb per hour.

Applicable Compliance Method:

To determine the particulate emission rate from burning natural gas, the following equation shall be used:

$$E = (A)(B)$$

where:

E = particulate emission rate from burning natural gas, in lb/hr.

A = 7.6 lbs/MMscf, emission factor for total particulate material from burning natural gas from AP-42, Section 1.4 Natural Gas Combustion, Table 1.4-2, 7/98.

B = 0.0351 MMscf/hr, the simultaneous natural gas used in this emissions unit in an hour.

(8) Emission Limitation:

PM/PM10 emissions shall not exceed 0.65 tons per year based upon a rolling 12-month summation.



Applicable Compliance Method:

To determine the annual particulate emission rate for this emissions unit, the following equation shall be used:

$$E = (A)(B)/C$$

where:

E = annual PM/PM10 emissions.

A = annual natural gas usage based upon the record keeping requirements specified in d)(2)a. of this permit, MMscf/yr.

B = 7.6 lbs/MMscf, natural gas combustion AP-42 emission factor (Section 1.4, Table 1.4-2, version 7/98).

C = 2000 lbs/ton.

(9) Emission Limitation:

VOC emissions shall not exceed 0.19 lb per hour.

Applicable Compliance Method:

To determine the VOC emission rate from burning natural gas, the following equation shall be used:

$$E = (A)(B)$$

where:

E = VOC emission rate from burning natural gas, in lb/hr.

A = 5.5 lbs/MMscf, emission factor for VOC from burning natural gas from AP-42, Section 1.4 Natural Gas Combustion, Table 1.4-2, 7/98.

B = 0.0351 MMscf/hr, the simultaneous natural gas used in this emissions unit in an hour.

(10) Emission Limitation:

VOC emissions shall not exceed 0.47 ton per year based upon a rolling 12-month summation.

Applicable Compliance Method:

To determine the annual VOC emission rate for this emissions unit, the following equation shall be used:

$$E = (A)(B)/C$$



where:

E = annual VOC emissions.

A = annual natural gas usage based upon the record keeping requirements specified in d)(2)a. of this permit, MMscf/yr.

B = 5.5 lbs/MMscf, natural gas combustion AP-42 emission factor (Section 1.4, Table 1.4-2, version 7/98).

C = 2000 lbs/ton.

g) Miscellaneous Requirements

(1) None.



5. P018, Pipe Aust Furnace #2

Operations, Property and/or Equipment Description:

Pipe Austenitizing Furnace #2 rated at 63.1 MMBtu/hr

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-10 through OAC rule 3745-31-20	<p>PM/PM10 emissions shall not exceed 0.36 lb/hour and 0.84 ton/year based upon a rolling 12-month summation.</p> <p>All PM/PM10 are considered filterable PM.</p> <p>NOx emissions shall not exceed 0.08 lb/MMBtu, 3.83 lbs/hour, and 8.98 tons/year based upon a rolling 12-month summation.</p> <p>CO emissions shall not exceed 3.95 lbs/hour and 9.24 tons/yr based upon a rolling 12-month summation.</p> <p>VOC emissions shall not exceed 0.26 lb/hour and 0.61 ton/year based upon a rolling 12-month summation.</p> <p>See b)(2)a.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1).</p>
b.	OAC 3745-17-11	See b)(2)b.
c.	OAC 3745-17-10	See b)(2)c.
e.	OAC rule 3745-05(A)(3)(a)(ii)	See b)(2)d.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
f.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.
g.	OAC rule 3745-18-06	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-10 thru 20 as listed in their PSD application of December 16, 2008.

(2) Additional Terms and Conditions

- a. Based on the "Prevention of Significant Deterioration" (PSD) analysis conducted to ensure the application of "Best Available Control Technology" (BACT), it has been determined that the use of natural gas as fuel, good combustion practices, low NOx burner technology, acceptance of a PE/PM10 limitation of 7.6 lb/MMscf, acceptance of CO limitation of 84 lb/MMscf, acceptance of VOC limitation of 5.5 lb/MMscf, and acceptance of NOx limitation of 0.08 lb/MMBtu constitute BACT for this emissions unit. The emission limitations are based on the BACT requirements listed under OAC rule 3745-31-(10) thru (20) above.
- b. The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight, as defined in OAC rule 3745-17-01(B)(17), is equal to zero.
- c. The burning of fuel in this unit is for the primary purpose of producing heat in which the products of combustion come into direct contact with materials being processed. It is, therefore, exempt from emission limitations and control requirements contained in OAC rule 3745-17-10.
- d. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the uncontrolled PE/PM10, CO, NOx, SO2, and VOC emissions from this air contaminant source since the potential to emit for PE/PM10, CO, NOx, SO2, and VOC is less than ten tons per year.
- e. The hourly emission limitations listed in b)(1) are based upon the potential to emit of this emissions unit and therefore no record keeping and reporting requirements of those limitations are necessary.
- f. The requirement of this Permit to Install supersedes the requirements specified in the terms and conditions of EU ID No. P018 in the PSD permit No. P0103995 (issued on April 10, 2009).

- c) Operational Restrictions
 - (1) The permittee shall use only natural gas as fuel for this emissions unit.
- d) Monitoring and/or Recordkeeping 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, quantity, and quality of fuel burned in this emissions unit.
 - (2) The permittee shall maintain monthly records of the following information:
 - a. the quantity of natural gas burned in this emissions unit in MMscf for each calendar month;
 - b. the monthly PM/PM10, VOC, NOx, and CO emissions; and,
 - c. the rolling, 12-month summation of the PM/PM10, VOC, NOx, and CO emissions.
- e) Reporting Requirements
 - (1) The permittee shall submit quarterly deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit.
 - (2) The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of:
 - a. the rolling, 12-month and PM/PM10, VOC, NOx, and CO emission limitations for this emissions unit in b)(1).
- f) Testing Requirements
 - (1) Emission Limitation:

20% opacity of visible emissions as a 6-minute average.

Applicable Compliance Method:

If required, compliance with the visible emission limitation 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)(1) of OAC rule 3745-17-03.
 - (2) Emission Limitation:

NOx emissions shall not exceed 0.08 lb/MMBtu.

Effective Date: To be entered upon final issuance

Applicable Compliance Method:

If required by the Ohio EPA, compliance with the NOx emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 7.

(3) Emission Limitation:

NOx emissions shall not exceed 3.83 lbs/hour.

Applicable Compliance Method:

Compliance shall be based on the following calculation by using emission factors supplied by the manufacturer for natural gas combustion and the simultaneous capacity of the gas burners.

$$E(\text{NOx}) = 47.9 \text{ mmBtu/hr} \times 0.08 \text{ lb NOx/mmBtu (mfg. emission factor)} = 3.83 \text{ lbs/hr.}$$

(4) Emission Limitation:

NOx emissions shall not exceed 8.98 tons per year based upon a rolling 12-month summation.

Applicable Compliance Method:

To determine the annual NOx emission rate from burning natural gas, the following equation shall be used:

$$E = (A)(B)(C) / D$$

where:

E = annual NOx emissions, in tons per year.

A = emission factor supplied by the manufacturer (lb/MMBtu).

B = natural gas heat content, 1020 Btu/scf.

C = annual natural gas usage based upon the record keeping requirements specified in d)(2)a. of this permit, in MMscf/yr.

D = 2000 lbs/ton.

(5) Emission Limitation:

CO emissions shall not exceed 3.95 lbs/hour.

Applicable Compliance Method:

To determine the CO emission rate from burning natural gas, the following equation shall be used:

$$E = (A)(B)$$

where:

E = CO emission rate from burning natural gas, in lb/hr.

A = 84 lbs/MMscf, emission factor for CO from burning natural gas from AP-42, Section 1.4 Natural Gas Combustion, Table 1.4-2, 7/98.

B = 0.0470 MMscf/hr, the simultaneous natural gas used in this emissions unit in an hour.

(6) Emission Limitation:

CO emissions shall not exceed 9.24 tons per year based upon a rolling 12-month summation.

Applicable Compliance Method:

Compliance with the annual CO emission limitation shall be determined by multiplying the emission factor of 84 lbs/MMscf (from AP-42, Table 1.4-1, 7/98 version) by the annual natural gas fuel usage (MMscf), and dividing by 2,000 lbs/ton. The annual natural gas fuel usage should be based upon the record keeping requirements specified in d)(2)a. of this permit.

(7) Emission Limitation:

PM/PM10 emissions shall not exceed 0.36 lb per hour.

Applicable Compliance Method:

To determine the particulate emission rate from burning natural gas, the following equation shall be used:

$$E = (A)(B)$$

where:

E = particulate emission rate from burning natural gas, in lb/hr.

A = 7.6 lbs/MMscf, emission factor for total particulate material from burning natural gas from AP-42, Section 1.4 Natural Gas Combustion, Table 1.4-2, 7/98.

B = 0.0470 MMscf/hr, the simultaneous natural gas used in this emissions unit in an hour.

(8) Emission Limitation:

PM/PM10 emissions shall not exceed 0.84 tons per year based upon a rolling 12-month summation.



Applicable Compliance Method:

To determine the annual particulate emission rate for this emissions unit, the following equation shall be used:

$$E = (A)(B)/C$$

where:

E = annual PM/PM10 emissions.

A = annual natural gas usage based upon the record keeping requirements specified in d)(2)a. of this permit, MMscf/yr.

B = 7.6 lbs/MMscf, natural gas combustion AP-42 emission factor (Section 1.4, Table 1.4-2, version 7/98).

C = 2000 lbs/ton.

(9) Emission Limitation:

VOC emissions shall not exceed 0.26 lb per hour.

Applicable Compliance Method:

To determine the VOC emission rate from burning natural gas, the following equation shall be used:

$$E = (A)(B)$$

where:

E = VOC emission rate from burning natural gas, in lb/hr.

A = 5.5 lbs/MMscf, emission factor for VOC from burning natural gas from AP-42, Section 1.4 Natural Gas Combustion, Table 1.4-2, 7/98.

B = 0.0470 MMscf/hr, the simultaneous natural gas used in this emissions unit in an hour.

(10) Emission Limitation:

VOC emissions shall not exceed 0.61 ton per year based upon a rolling 12-month summation.

Applicable Compliance Method:

To determine the annual VOC emission rate for this emissions unit, the following equation shall be used:

$$E = (A)(B)/C$$



where:

E = annual VOC emissions.

A = annual natural gas usage based upon the record keeping requirements specified in d)(2)a. of this permit, MMscf/yr.

B = 5.5 lbs/MMscf, natural gas combustion AP-42 emission factor (Section 1.4, Table 1.4-2, version 7/98).

C = 2000 lbs/ton.

g) Miscellaneous Requirements

(1) None.



6. P019, Pipe Temp Furnace #2

Operations, Property and/or Equipment Description:

Pipe Tempering Furnace #2 rated at 47.5 MMBtu/hr

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-10 through OAC rule 3745-31-20	<p>PM/PM10 emissions shall not exceed 0.27 lb/hour and 0.65 ton/year based upon a rolling 12-month summation.</p> <p>All PM/PM10 are considered filterable PM.</p> <p>NOx emissions shall not exceed 0.08 lb/MMBtu, 2.86 lbs/hour, and 6.94 tons/year based upon a rolling 12-month summation.</p> <p>CO emissions shall not exceed 2.95 lbs/hour and 7.14 tons/yr based upon a rolling 12-month summation.</p> <p>VOC emissions shall not exceed 0.19 lb/hour and 0.47 ton/year based upon a rolling 12-month summation.</p> <p>See b)(2)a.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1).</p>
b.	OAC 3745-17-11	See b)(2)b.
c.	OAC 3745-17-10	See b)(2)c.
e.	OAC rule 3745-05(A)(3)(a)(ii)	See b)(2)d.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
f.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.
g.	OAC rule 3745-18-06	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-10 thru 20 as listed in their PSD application of December 16, 2008.

(2) Additional Terms and Conditions

- a. Based on the "Prevention of Significant Deterioration" (PSD) analysis conducted to ensure the application of "Best Available Control Technology" (BACT), it has been determined that the use of natural gas as fuel, good combustion practices, low NOx burner technology, acceptance of a PE/PM10 limitation of 7.6 lb/MMscf, acceptance of CO limitation of 84 lb/MMscf, acceptance of VOC limitation of 5.5 lb/MMscf, and acceptance of NOx limitation of 0.08 lb/MMBtu constitute BACT for this emissions unit. The emission limitations are based on the BACT requirements listed under OAC rule 3745-31-(10) thru (20) above.
- b. The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight, as defined in OAC rule 3745-17-01(B)(17), is equal to zero.
- c. The burning of fuel in this unit is for the primary purpose of producing heat in which the products of combustion come into direct contact with materials being processed. It is, therefore, exempt from emission limitations and control requirements contained in OAC rule 3745-17-10.
- d. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the uncontrolled PE/PM10, CO, NOx, SO2, and VOC emissions from this air contaminant source since the potential to emit for PE/PM10, CO, NOx, SO2, and VOC is less than ten tons per year.
- e. The hourly emission limitations listed in b)(1) are based upon the potential to emit of this emissions unit and therefore no record keeping and reporting requirements of those limitations are necessary.
- f. The requirement of this Permit to Install supersedes the requirements specified in the terms and conditions of EU ID No. P019 in the PSD permit No. P0103995 (issued on April 10, 2009).

- c) Operational Restrictions
 - (1) The permittee shall use only natural gas as fuel for this emissions unit.
- d) Monitoring and/or Recordkeeping 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, quantity, and quality of fuel burned in this emissions unit.
 - (2) The permittee shall maintain monthly records of the following information:
 - a. the quantity of natural gas burned in this emissions unit in MMscf for each calendar month;
 - b. the monthly PM/PM10, VOC, NOx, and CO emissions; and,
 - c. the rolling, 12-month summation of the PM/PM10, VOC, NOx, and CO emissions.
- e) Reporting Requirements
 - (1) The permittee shall submit quarterly deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit.
 - (2) The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of:
 - a. the rolling, 12-month and PM/PM10, VOC, NOx, and CO emission limitations for this emissions unit in b)(1).
- f) Testing Requirements
 - (1) Emission Limitation:

20% opacity of visible emissions as a 6-minute average

Applicable Compliance Method:

If required, compliance with the visible emission limitation 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)(1) of OAC rule 3745-17-03.
 - (2) Emission Limitation:

NOx emissions shall not exceed 0.08 lb/MMBtu.

Applicable Compliance Method:

If required by the Ohio EPA, compliance with the NOx emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 7.

(3) Emission Limitation:

NOx emissions shall not exceed 2.86 lbs/hour.

Applicable Compliance Method:

Compliance shall be based on the following calculation by using emission factors supplied by the manufacturer for natural gas combustion and the simultaneous capacity of the gas burners.

$$E(\text{NOx}) = 35.8 \text{ mmBtu/hr} \times 0.08 \text{ lb NOx/mmBtu (mfg. emission factor)} = 2.86 \text{ lbs/hr.}$$

(4) Emission Limitation:

NOx emissions shall not exceed 6.94 tons per year based upon a rolling 12-month summation.

Applicable Compliance Method:

To determine the annual NOx emission rate from burning natural gas, the following equation shall be used:

$$E = (A)(B)(C) / D$$

where:

E = annual NOx emissions, in tons per year.

A = emission factor supplied by the manufacturer (lb/MMBtu).

B = natural gas heat content, 1020 Btu/scf.

C = annual natural gas usage based upon the record keeping requirements specified in d)(2)a. of this permit, in MMscf/yr.

D = 2000 lbs/ton.

(5) Emission Limitation:

CO emissions shall not exceed 2.95 lbs/hour.

Applicable Compliance Method:

To determine the CO emission rate from burning natural gas, the following equation shall be used:

$$E = (A)(B)$$

where:

E = CO emission rate from burning natural gas, in lb/hr.

A = 84 lbs/MMscf, emission factor for CO from burning natural gas from AP-42, Section 1.4 Natural Gas Combustion, Table 1.4-2, 7/98.

B = 0.0351 MMscf/hr, the simultaneous natural gas used in this emissions unit in an hour.

(6) Emission Limitation:

CO emissions shall not exceed 7.14 tons per year based upon a rolling 12-month summation.

Applicable Compliance Method:

Compliance with the annual CO emission limitation shall be determined by multiplying the emission factor of 84 lbs/MMscf (from AP-42, Table 1.4-1, 7/98 version) by the annual natural gas fuel usage (MMscf), and dividing by 2,000 lbs/ton. The annual natural gas fuel usage should be based upon the record keeping requirements specified in d)(2)a. of this permit.

(7) Emission Limitation:

PM/PM10 emissions shall not exceed 0.27 lb per hour.

Applicable Compliance Method:

To determine the particulate emission rate from burning natural gas, the following equation shall be used:

$$E = (A)(B)$$

where:

E = particulate emission rate from burning natural gas, in lb/hr.

A = 7.6 lbs/MMscf, emission factor for total particulate material from burning natural gas from AP-42, Section 1.4 Natural Gas Combustion, Table 1.4-2, 7/98.

B = 0.0351 MMscf/hr, the simultaneous natural gas used in this emissions unit in an hour.

(8) Emission Limitation:

PM/PM10 emissions shall not exceed 0.65 ton per year based upon a rolling 12-month summation.

Applicable Compliance Method:

To determine the annual particulate emission rate for this emissions unit, the following equation shall be used:

$$E = (A)(B)/C$$

where:

E = annual PM/PM10 emissions.

A = annual natural gas usage based upon the record keeping requirements specified in d)(2)a. of this permit, MMscf/yr.

B = 7.6 lbs/MMscf, natural gas combustion AP-42 emission factor (Section 1.4, Table 1.4-2, version 7/98).

C = 2000 lbs/ton.

(9) Emission Limitation:

VOC emissions shall not exceed 0.19 lb per hour.

Applicable Compliance Method:

To determine the VOC emission rate from burning natural gas, the following equation shall be used:

$$E = (A)(B)$$

where:

E = VOC emission rate from burning natural gas, in lb/hr.

A = 5.5 lbs/MMscf, emission factor for VOC from burning natural gas from AP-42, Section 1.4 Natural Gas Combustion, Table 1.4-2, 7/98.

B = 0.0351 MMscf/hr, the simultaneous natural gas used in this emissions unit in an hour.

(10) Emission Limitation:

VOC emissions shall not exceed 0.47 ton per year based upon a rolling 12-month summation.

Applicable Compliance Method:

To determine the annual VOC emission rate for this emissions unit, the following equation shall be used:

$$E = (A)(B)/C$$



where:

E = annual VOC emissions.

A = annual natural gas usage based upon the record keeping requirements specified in d)(2)a. of this permit, MMscf/yr.

B = 5.5 lbs/MMscf, natural gas combustion AP-42 emission factor (Section 1.4, Table 1.4-2, version 7/98).

C = 2000 lbs/ton.

g) Miscellaneous Requirements

(1) None.



7. P024, VTD Steam Condenser

Operations, Property and/or Equipment Description:

Vacuum Tank Degasser (VTD)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-10 through OAC rule 3745-31-20	PM/PM10 emissions shall not exceed 0.002 lb per ton of liquid steel production, 0.34 lb/hour and 1.05 tons/year based upon a rolling 12-month summation. All PM/PM10 are considered filterable PM. CO emissions shall not exceed 0.20 lb per ton of liquid steel production, 34.4 lbs/hour and 105 tons/year based upon a rolling 12-month summation. See b)(2)a. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1) and OAC rule 3745-17-07(B)(1).
b.	OAC rule 3745-31-05(A)(3)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-10 thru for 20 for CO.
c.	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-10 thru 20.
e.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the



Table with 2 columns: Applicable Rules/Requirements, Applicable Emissions Limitations/Control Measures. Rows include OAC rule 3745-17-07(B)(1) and OAC rule 3745-31-05(E).

(2) Additional Terms and Conditions

a. Based on the "Prevention of Significant Determination" (PSD) analysis conducted to ensure the application of "Best Available Control Technology" (BACT), it has been determined that the use of vacuum system design, acceptance of a PM/PM10 limitation of 0.002 lb/ton of steel, and acceptance of a CO limitation of 0.2 lbs/ton of steel produced constitute BACT for this emission unit.

b. The permit has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08, respectively, by committing to comply with the best available technology requirements established in permit to install P0103995.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. On June 24, 2003, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

c. Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a three-minute average. For purposes of verifying compliance with this requirement, the visible particulate emissions shall be observed at any non-stack egress point from the building housing this emissions unit. These egress points shall include, but not be limited to, doorways, windows, and roof monitors.

d. Permit to install P0103995 for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment) as proposed by the permittee for the purposes of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3);

i. the annual liquid steel production of 1,400,000 tons per year.

ii. Annual VTD liquid steel production of 1,050,000 tons per year.

- e. The permittee shall investigate the ability to conduct stack testing on the egress point (steam ejector) in order to determine the CO and PM/PM10 emissions from this emissions unit. If stack testing on the egress point is technically infeasible, the permittee shall develop a parametric monitoring, recordkeeping, and reporting plan to confirm that CO and PM/PM10 emissions are within established limits.
 - f. The hourly emission limitations listed in b)(1) are based upon the potential to emit of this emissions unit and therefore no record keeping and reporting requirements of those limitations are necessary.
 - g. The requirement of this Permit to Install supersedes the requirements specified in the terms and conditions of EU ID No. P024 in the PSD permit No. P0103995 (issued on April 10, 2009).
- c) Operational Restrictions
- (1) The permittee shall restrict the annual VTD liquid steel production to 1,050,000 tons per year, based upon a rolling 12-month summation of the production rates.
- d) Monitoring and/or Recordkeeping Requirements
- (1) The permittee shall maintain monthly records of the following information:
 - a. the liquid steel production rate for each month;
 - b. the monthly PM/PM10 and CO emissions; and
 - c. the rolling, 12-month summation of the PM/PM10 and CO emissions.
 - (3) The permittee shall perform daily checks when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from any egress point (e.g., windows, doors, roof monitors, etc.) associated with this emissions unit. The presence or absence of any visible fugitive particulate emissions shall be noted in an operations log. An EPA Method 9 opacity analysis shall be required upon OEPA request, but is not required for the daily or weekly visible emissions checks. If visible fugitive particulate emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible fugitive particulate emission incident; and
 - e. any corrective actions taken to eliminate the visible fugitive particulate emissions.

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Notwithstanding the frequency of reporting requirements specified in e)(2), the permittee may reduce the frequency of visual observations for this emissions unit from daily to weekly if the following conditions are met:

- a. for any 3 consecutive calendar months (excluding scheduled maintenance-shut down) this emissions unit's visual observations indicated no visible emissions; and
- b. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to daily readings for this emissions unit if visible emissions are observed. The permittee may again reduce the frequency of visible emissions observations from daily to weekly after obtaining 3 consecutive calendar months (excluding scheduled maintenance-shut down) of observations with no visible emissions for this emissions unit.

- (4) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. An EPA Method 9 opacity analysis shall be required upon OEPA request, but is not required for the daily or weekly visible emissions checks. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

Notwithstanding the frequency of reporting requirements specified in e)(3), the permittee may reduce the frequency of visual observations for this emissions unit from daily to weekly if the following conditions are met:

- a. for any 3 consecutive calendar months (excluding scheduled maintenance-shut down) this emissions unit's visual observations indicated no visible emissions; and
- b. the permittee continues to comply with all the record keeping and monitoring requirements specified above.

The permittee shall revert to daily readings for this emissions unit if visible emissions are observed. The permittee may again reduce the frequency of visible emissions observations from daily to weekly after obtaining 3 consecutive calendar months (excluding scheduled maintenance-shut down) of observations with no visible emissions for this emissions unit.

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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 daily 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.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the PM/PM10 and CO emission limitations listed in b)(1) under OAC rule 3745-31-10 through OAC rule 3745-31-20.
- (2) The permittee shall submit semiannual written reports that (a) identify all weeks during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) 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 Ohio EPA, Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.
- (3) The permittee shall submit semiannual written reports that (a) identify all weeks during which any visible particulate emissions were observed from the vacuum degasser steam ejector stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate any visible particulate emissions. These reports shall be submitted to the Ohio EPA, Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

f) Testing Requirements

- (1) Emission Limitation:

PM/PM10 emissions shall not exceed 0.34 pound per hour.

Applicable Compliance Method:

To determine the hourly particulate emission rate for the vacuum tank degasser the following equation may be used:

$$E = (A)(B)(1-C)$$

where:

E = particulate emissions (lb/hr)

A = 0.2 pound of PM/PM10/ton of steel produced emission factor (emission factor provided by permittee in PTI No. P0103995 application).

B = maximum hourly production, 172 tons/hr.

C = control efficiency of capture system, 99%.

If required by the Ohio EPA, compliance with the particulate emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 5.

(2) Emission Limitations:

PE/PM10 emissions shall not exceed 1.05 tons per year.

PM/PM10 emissions shall not exceed 1.05 tons per year based upon a rolling 12-month summation.

Applicable Compliance Method:

To determine the annual particulate emissions rate for the vacuum tank degasser the following equation shall be used:

$$E = (A)(B)(1-C)/D$$

where:

A = annual liquid steel produced based upon the record keeping requirements specified in d)(1) above, in tons/year.

B = 0.2 pound of PM/PM10/ton of steel produced emission factor (emission factor provided by permittee in PTI No. P0103995 application).

C = control efficiency of capture system, 99%.

D = 2000 lbs/ton.

(3) Emission Limitation:

CO shall not exceed 34.4 pounds per hour.

Applicable Compliance Method:

To determine the hourly CO emission rate for the vacuum tank degasser the following equation may be used:

$$E = (A)(B)$$

$$E = (\text{tons of steel/hour}) (0.20 \text{ pound of CO/ton steel})$$

where:

E = CO emissions (lb/hr).

A = 0.2 pound of CO/ton of steel produced emission factor (emission factor provided by permittee in PTI No. P0103995 application).

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B = maximum hourly production, 172 tons/hr.

If required by the Ohio EPA, compliance with the CO emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 10.

(4) Emission Limitations:

CO emissions shall not exceed 105 tons per year.

CO emissions shall not exceed 105 tons per year based upon a rolling 12-month summation.

Applicable Compliance Method:

To determine the annual CO emissions rate for the vacuum tank degasser the following equation shall be used:

$$E = (A)(B)/C$$

$$E = (\text{tons of steel/year}) (0.2 \text{ pound of CO/ton steel}) (1 \text{ ton}/2000 \text{ pounds})$$

where:

E = CO emissions (tons/yr).

A = 0.2 pound of CO/ton of steel produced emission factor (emission factor provided by permittee in PTI No. P0103995 application).

B = annual liquid steel produced based upon the record keeping requirements specified in d)(1) above, in tons/year.

C = 2000 lbs/ton.

(5) Emission Limitation:

Visible particulate emissions from the vacuum tank degasser steam ejector stack shall not exhibit twenty (20) percent opacity or greater as a six-minute average.

Applicable Compliance Method:

Compliance with the visible emission limitation 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)(1) of OAC rule 3745-17-03.

(6) Emission Limitation

Visible particulate emissions of fugitive dust from the operation of the vacuum tank degasser shall not exhibit twenty (20) percent opacity or greater as a three-minute average.



Applicable Compliance Method:

Compliance with the visible emission limitation 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.

g) Miscellaneous Requirements

- (1) None.



8. P025, Cooling Tower 7/8

Operations, Property and/or Equipment Description:

Cooling Water Tower with contact and non-contact cells, Cooling Tower 7/8, FQM Contact Water

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-10 through OAC rule 3745-31-20	<p>PM/PM10 emissions shall not exceed 0.572 lb/hour and 2.51 tons/year based upon a rolling 12-month summation.</p> <p>The permittee shall install a drift eliminator with a maximum drift rate of 0.005% of circulating water flow rate, onto this emissions unit.</p> <p>All PM/PM10 are considered filterable PM.</p> <p>Visible particulate emissions shall not exceed 10% opacity as a 6-minute average. The presence of condensed water vapor shall not be deemed a violation for failure of stack emissions meeting this visible emission limitation.</p> <p>See b)(2)a.</p>
b.	OAC rule 3745-05(A)(3)(a)(ii)	See b)(2)b.
c.	OAC rule 3745-17-07(A)(1)	See b)(2)c.
d.	OAC rule 3745-17-11	See b)(2)c.

- (2) Additional Terms and Conditions
- a. Based on the "Prevention of Significant Deterioration" (PSD) analysis conducted to ensure the application of "Best Available Control Technology" (BACT), it has been determined that the use of high efficiency integral drift eliminators with drift performance of 0.005% of the circulating water flow rate constitute BACT for this emissions unit. The emission limitations are based on the BACT requirements listed under OAC rule 3745-31-(10) thru (20) above.
 - b. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the uncontrolled PE/PM10 emissions from this air contaminant source since the potential to emit for PE/PM10 is less than ten tons per year.
 - c. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-10 thru 20.
 - d. The provisions of 40 CFR Part 63, Subpart Q, apply to all new and existing industrial process cooling towers that are operated with chromium-based water treatment chemicals and are either major sources or are integral part of facilities that are major sources as defined in 40 CFR 63.401. Since chromium-based water treatment chemicals will not be used in this emissions unit, the provisions of this subpart do not apply to this emissions unit.
 - e. The requirement of this Permit to Install supersedes the requirements specified in the terms and conditions of EU ID No. P025 in the PSD permit No. P0103995 (issued on April 10, 2009).
- c) Operational Restrictions
- (1) The water flow through the cooling tower 7 and 8 shall not exceed 1,372,000 gallons per hour.
 - (2) The permittee shall not use chromium-based water treatment chemicals in this emissions unit.
- d) Monitoring and/or Recordkeeping Requirements
- (1) The permittee shall properly operate and maintain equipment to monitor the cooling tower water flow rate. The monitoring device(s) and any recorders shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.
 - (2) The permittee shall monitor and record the cooling tower water flow rate, in gallons per hour, at a minimum frequency of once per day.
 - (3) The permittee shall sample the cooling tower water at a minimum frequency of once per week and average the weekly values to demonstrate compliance with the monthly average total dissolved solids (TDS) limitation of 1,000 parts per million.
 - (4) Each cooling tower water sample shall be collected from the discharge side of the water delivery system. The sample shall be collected in a clean plastic bottle. The

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concentration of total dissolved solids in each sample shall be determined according to section 209(C), "Standard Methods for the Examination of Water and Wastewater," fifteenth edition, using a drying temperature between one hundred three and one hundred five degrees Celsius.

- (5) The permittee shall maintain records of the results of the total dissolved solids analysis for each cooling tower water sample, and of the calculated average concentration for each month.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify all days during which the total cooling tower water flow rate exceeded 1,372,000 gallons per hour.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify all months during which the monthly average concentration of total dissolved solids (TDS) in the cooling tower water exceeded 1,000 parts per million.

f) Testing Requirements

- (1) Emission Limitation:

PM/PM10 emissions shall not exceed 0.572 lb per hour.

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

$$E = (A)(B)(C) / 1X10E6 (D) / 100$$

where:

E= PM/PM10 hourly emission rate, in pounds.

A= 1,372,000 gal/hr, maximum cooling tower circulating water rate.

B= collected sample with the highest concentration of total dissolved solids (TDS) in circulating water (PPM by weight), based upon the record keeping requirements specified in d)(5) of this permit.

C= 0.005% drift loss of circulating water flow rate (emission factor provided by permittee in PTI No. P0103995 application).

D = 8.34 lbs/gal, density of water.

- (2) Emission Limitation:

PM/PM10 emissions shall not exceed 2.51 tons per rolling 12-month period.

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

$$E = (A)(B)(C)(D) / 100 (8760/2000)$$

where:

E= PM/PM10 hourly emission rate, in pounds.

A= 1,372,000 gal/hr, maximum cooling tower circulating water rate.

B= collected sample with the highest concentration of total dissolved solids (TDS) in circulating water (PPM by weight), based upon the record keeping requirements specified in d)(5) of this permit.

C= 0.005% drift loss of circulating water flow rate (emission factor provided by permittee in PTI No. P0103995 application).

D = 8.34 lbs/gal, density of water.

(3) Emission Limitation:

Visible particulate emissions from any stack shall not exceed 10% opacity as a six-minute average.

Applicable Compliance Method:

If required, compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60 ("Standards of Performance for New Stationary Sources"), Appendix A, U.S. EPA Reference Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

g) Miscellaneous Requirements

(1) None.