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

10/17/2014

Genevieve Damico *Via E-Mail Notification*
United States Environmental Protection Agency
Mail Code: AR-18J
77 West Jackson Blvd.
Chicago, IL 60604-3507

RE: PROPOSED AIR POLLUTION TITLE V PERMIT
Facility Name: Materion Brush Inc.
Facility ID: 0362000009
Permit Type: Minor Permit Modification
Permit Number: P0117537

Dear Ms. Damico:

A proposed OAC Chapter 3745-77 Title V permit for the referenced facility has been issued for review by U.S. EPA. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab. If U.S. EPA does not object to this proposed permit, the permit will be processed for issuance as a final action not less than 45 days from the date of this letter. Please contact me at (614) 644-2835 by the end of the 45 day review period if you wish to object to the proposed permit.

Sincerely,

Erica R. Engel-Ishida, Interim Manager
Permit Issuance and Data Management Section, DAPC

Cc: Ohio EPA DAPC, Northwest District Office

PROPOSED

Division of Air Pollution Control
Title V Permit
for
Materion Brush Inc.

Facility ID:	0362000009
Permit Number:	P0117537
Permit Type:	Minor Permit Modification
Issued:	10/17/2014
Effective:	To be entered upon final issuance
Expiration:	To be entered upon final issuance

Division of Air Pollution Control
Title V Permit
for
Materion Brush Inc.

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Authorization

Facility ID:	0362000009
Facility Description:	Copper Rolling and Drawing
Application Number(s):	A0051380
Permit Number:	P0117537
Permit Description:	Title V Minor Permit Modification to incorporate permits P0117539 and P0117540 for emissions units P079, P114 through P118 and P122.
Permit Type:	Minor Permit Modification
Issue Date:	10/17/2014
Effective Date:	To be entered upon final issuance
Expiration Date:	To be entered upon final issuance
Superseded Permit Number:	P0108280

This document constitutes issuance of an OAC Chapter 3745-77 Title V permit to:

Materion Brush Inc.
14710 W. Portage River South Road
1/4 mile east of SR 590
Harris, OH 43416-9502

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

Ohio EPA DAPC, Northwest District Office
347 North Dunbridge Road
Bowling Green, OH 43402
(419)352-8461

The above named entity is hereby granted a Title V permit pursuant to Chapter 3745-77 of the Ohio Administrative Code. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. You will be sent a notice approximately 18 months prior to the expiration date regarding the renewal of this permit. If you do not receive a notice, please contact the Ohio EPA DAPC, Northwest District Office. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, if a timely renewal application is submitted. A renewal application will be considered timely if it is submitted no earlier than 18 months and no later than 6 months prior to the expiration date.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Craig W. Butler
Director

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. 24., Reporting Requirements Related to Monitoring and Record Keeping Requirements of State-Only Enforceable Permit Terms and Conditions

(2) Standard Term and Condition A. 25., Records Retention Requirements for State-Only Enforceable Permit Terms and Conditions

(3) Standard Term and Condition A. 27., Scheduled Maintenance/Malfunction Reporting For State-Only Requirements

(4) Standard Term and Condition A. 29., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

(5) Standard Term and Condition A. 30.

(Authority for term: ORC 3704.036(A))

2. 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 (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit), 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.

(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))

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 all calibration and maintenance records and all original strip-chart recordingsfor continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))

c) The permittee shall submit required reports in the following manner:

(1) All reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations caused by malfunctions shall be submitted in the following manner:

Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the OAC rule 3745-77-07(A)(3)(c) deviation reporting requirements for malfunctions, written reports that identify each malfunction that occurred during each calendar quarter (including each malfunction reported only verbally in accordance with OAC rule 3745-15-06) shall be submitted by January 31, April 30, July 31, and October 31 of each year in accordance with Standard Term and Condition A.2.c)(2) below; and each report shall cover the previous calendar quarter. An exceedance of the visible emission limitations specified in OAC rule 3745-17-07(A)(1) that is caused by a malfunction is not a violation and does not need to be reported as a deviation if the owner or operator of the affected air contaminant source or air pollution control equipment complies with the requirements of OAC rule 3745-17-07(A)(3)(c).

In accordance with OAC rule 3745-15-06, a malfunction reportable under OAC rule 3745-15-06(B) is a deviation of the federally enforceable permit requirements. Even though verbal notifications and written reports are required for malfunctions pursuant to OAC rule 3745-15-06, the written reports required pursuant to this term must be submitted quarterly to satisfy the prompt reporting provision of OAC rule 3745-77-07(A)(3)(c).

In identifying each deviation caused by a malfunction, the permittee shall specify the emission limitation(s) (or control requirement(s)) for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. For a specific malfunction, if this information has been provided in a written report that was submitted in accordance with OAC rule 3745-15-06, the permittee may simply reference that written report to identify the deviation. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing on a quarterly basis.

Any submittedscheduled maintenancerequests, as referenced in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described above for malfunctions.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

(2) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit or, in some cases, in section B. Facility-Wide Terms and Conditions of this Title V permit), all reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations of the emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:

Written reports of (a) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures taken, shall be submitted promptly to the Ohio EPA DAPC, Northwest District Office. Except as provided below, the written reports shall be submitted by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

In identifying each deviation, the permittee shall specify the emission limitation(s), operational restriction(s), and/or control device operating parameter limitation(s) for which the deviation occurred, describe each deviation, and provide the estimated magnitude and duration of each deviation.

These written deviation reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations. Full compliance with OAC rule 3745-77-07(A)(3)(c) requires reporting of all other deviations of the federally enforceable requirements specified in the permit as required by such rule.

If an emissions unit has a deviation reporting requirement for a specific emission limitation, operational restriction, or control device operating parameter limitation that is not on a quarterly basis (e.g., within 30 days following the end of the calendar month, or within 30 or 45 days after the exceedance occurs), that deviation reporting requirement satisfies the reporting requirements specified in this Standard Term and Condition for that specific emission limitation, operational restriction, or control device parameter limitation. Following the provisions of that non-quarterly deviation reporting requirement will also satisfy (for the deviations so reported) the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations, and additional quarterly deviation reports for that specific emission limitation, operational restriction, or control device parameter limitation are not required pursuant to this Standard Term and Condition.

See A.29 below if no deviations occurred during the quarter.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

(3) All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) for other deviations of the federally enforceable permit requirements which are not reported in accordance with Standard Term and Condition A.2)c)(2) above shall be submitted in the following manner:

Unless otherwise specified by rule, written reports that identify deviations of the following federally enforceable requirements contained in this permit; Standard Terms and Conditions: A.3, A.4, A.5, A.7.e), A.8, A.13, A.15, A.19, A.20, A.21, and A.23 of this Title V permit, as well as any deviations from the requirements in section C. Emissions Unit Terms and Conditions of this Title V permit, and any monitoring, record keeping, and reporting requirements, which are not reported in accordance with Standard Term and Condition A.2.c)(2) above shall be submitted to the Ohio EPA DAPC, Northwest District Office by January 31 and July 31 of each year; and each report shall cover the previous six calendar months. Unless otherwise specified by rule, all other deviations from

federally enforceable requirements identified in this permit shall be submitted annually as part of the annual compliance certification, including deviations of federally enforceable requirements not specifically addressed by permit or rule for the insignificant activities or emissions levels (IEU) identified in section B. Facility-Wide Terms and Conditions of this Title V permit. Annual reporting of deviations is deemed adequate to meet the deviation reporting requirements for IEUs unless otherwise specified by permit or rule.

In identifying each deviation, the permittee shall specify the federally enforceable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation.

These semi-annual and annual written reports shall satisfy the reporting requirements of OAC rule 3745-77-07(A)(3)(c) for any deviations from the federally enforceable requirements contained in this permit that are not reported in accordance with Standard Term and Condition A.2.c)(2) above.

If no such deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no such deviations occurred during that period.

(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii) and OAC rule 3745-77-07(A)(13)(b))

(4) 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 (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete." Signature by the Responsible Official may be represented by entry of the personal identification number (PIN) by the Responsible Official as part of the electronic submission process or by the scanned attestation document signed by the Responsible Official that is attached to the electronically submitted written report.

(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))

(5) Consistent with A.2.c.1. above, reports of any required monitoring and/or record keeping information required to be submitted to Ohio EPA shall be submitted to Ohio EPA DAPC, Northwest District Office unless otherwise specified.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

3. Reporting of Any Exceedence of a Federally Enforceable Emission Limitation or Control Requirement Resulting From Scheduled Maintenance

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06(A)(3), any scheduled maintenance necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s). Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described for malfunctions in Standard Term and Condition A.2.c)(1) above.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

4. Risk Management Plans

If applicable, the permittee shall 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"); and, pursuant to 40 C.F.R. 68.215(a), the permittee shall submit either of the following:

a) a compliance plan for meeting the requirements of 40 C.F.R. Part 68 by the date specified in 40 C.F.R. 68.10(a) and OAC 3745-104-05(A); or

b) as part of the compliance certification submitted under 40 C.F.R. 70.6(c)(5), a certification statement that the source is in compliance with all requirements of 40 C.F.R. Part 68 and OAC Chapter 3745-104, including the registration and submission of the risk management plan.

(Authority for term: OAC rule 3745-77-07(A)(4))

5. 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.

(Authority for term: OAC rule 3745-77-07(A)(5))

6. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

(Authority for term: OAC rule 3745-77-07(A)(6))

7. General Requirements

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

b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permitexcept as provided pursuant to A.16 below.

c) This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with A.11 below. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

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

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

f) Except as otherwise indicated below, this Title V permit, or permit modification, is effective for five years from the original effective date specified in the permit. In the event that this facility becomes eligible for non-title V permits, this permit shall cease to be enforceable when:

(1) the permittee submits an approved facility-wide potential to emit analysis supporting a claim that the facility no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on the permanent shutdown and removal of one or more emissions units identified in this permit; or

(2) the permittee no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on obtaining restrictions on the facility-wide potential(s) to emit that are federally enforceable or legally and practically enforceable ; or

(3) a combination of (1) and (2) above.

The permittee shall continue to comply with all applicable OAC Chapter 3745-31 requirements for all regulated air contaminant sources once this permit ceases to be enforceable. The permittee shall comply with any residual requirements, such as quarterly deviation reports, semi-annual deviation reports, and annual compliance certifications covering the period during which this Title V permit was enforceable. All records relating to this permit must be maintained in accordance with law.

(Authority for term: OAC rule 3745-77-01(W), OAC rule 3745-77-07(A)(3)(b)(ii), OAC rule 3745-77(A)(7))

8. 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.

(Authority for term: OAC rule 3745-77-07(A)(8))

9. Marketable Permit Programs

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

(Authority for term: OAC rule 3745-77-07(A)(9))

10. Reasonably Anticipated Operating Scenarios

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these standard terms and conditions shall apply to all operating scenarios authorized in this permit.

(Authority for term: OAC rule 3745-77-07(A)(10))

11. Reopening for Cause

This Title V permit will be reopened prior to its expiration date under the following conditions:

a) Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.

b) This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.

c) The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.

d) The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

(Authority for term: OAC rules 3745-77-07(A)(12) and 3745-77-08(D))

12. Federal and State Enforceability

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

(Authority for term: OAC rule 3745-77-07(B))

13. Compliance Requirements

a) Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a Responsible

Officialthat, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

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

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

(2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.

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

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

c) The permittee shall submit progress reports to the Ohio EPA DAPC, Northwest 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.

d) Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the Ohio EPA DAPC, Northwest District Office) and the Administrator of the U.S. EPA in the following manner and with the following content:

(1) Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.

(2) Compliance certifications shall include the following:

a. Identification of each term or condition that is the basis of the certification. The identification may include a statement by the Responsible Official that every term and condition that is federally enforceable has been reviewed, and such terms and conditions with which there has been continuous compliance throughout the year are not separately identified.

b. The permittee's current compliance status.

c. Whether compliance was continuous or intermittentconsistent with A.13.d.2.a above.

d. The method(s) used for determining the compliance status of the source currently and over the required reporting period consistent with A.13.d.2.a above.

e. Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.

(3) Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

(Authority for term: OAC rules 3745-77-07(C)(1),(2),(4) and (5) and ORC section 3704.03(L))

14. Permit Shield

a) Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.

b) This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

(Authority for term: OAC rule 3745-77-07(F))

15. Operational Flexibility

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the Ohio EPA DAPC, Northwest District Office with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the Ohio EPA DAPC, Northwest District Office as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

(Authority for term: OAC rules 3745-77-07(H)(1) and (2))

16. Emergencies

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met.

This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.

(Authority for term: OAC rule 3745-77-07(G))

17. Off-Permit Changes

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

a) The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition.

b) The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA, except that no such notice shall be required for changes that qualify as insignificant emissions levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.

c) The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).

d) The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

e) The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit-to-install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

(Authority for term: OAC rule 3745-77-07(I))

18. Compliance Method Requirements

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Federal Register 8314, Feb. 24, 1997), in the context of any future proceeding.

(This term is provided for informational purposes only.)

19. Insignificant Activities or Emissions Levels

Each IEU that is subject to one or more applicable requirements shall comply with those applicable requirements.

(Authority for term: OAC rule 3745-77-07(A)(1))

20. Permit to Install Requirement

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

(Authority for term: OAC rule 3745-77-07(A)(1))

21. 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.

(Authority for term: OAC rule 3745-77-07(A)(1))

22. Permanent Shutdown of an Emissions Unit

The permittee may notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification from the Responsible 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 Responsible Official that the emissions unit was permanently shut down.

After the date on which an emissions unit is permanently shut down (i.e., that 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 and therefore ceases to meet the definition of an "emissions unit" as defined in OAC rule 3745-77-01(O)), rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the date of the certification and submission to Ohio EPA, to meet any Title V permit requirements applicable to that emissions unit, except for any residual requirements, such as the quarterly deviation reports, semi-annual deviation reports and annual compliance certification covering the period during which the emissions unit last operated. All records relating to the shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law.

Unless otherwise exempted, noemissions unit identified in this permit that has beencertified by the Responsible Official as being permanently shut down may resume operation without first applying for and obtaining a permit to install pursuant to OAC Chapter 3745-31.

(Authority for term: OAC rule 3745-77-01)

23. Title VI Provisions

If applicable, the permittee shall comply with the standards for recycling and reducing emissions of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

a) Persons operating appliances for maintenance, service, repair, or disposal must comply with the required practices specified in 40 CFR 82.156.

b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment specified in 40 CFR 82.158.

c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

(Authority for term: OAC rule 3745-77-01(H)(11)))

24. Reporting Requirements Related to Monitoring and Record Keeping Requirements Under State Law Only

The permittee shall submit required reports in the following manner:

a) Reports of any required monitoring and/or record keeping information shall be submitted to theOhio EPA DAPC, Northwest District Office.

b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Ohio EPA DAPC, Northwest District Office. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

25. Records Retention Requirements Under State Law Only

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.

26. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine

whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

(Authority for term: OAC rule 3745-77-07(C))

27. Scheduled Maintenance/Malfunction Reporting For State-Only Requirements

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the Ohio EPA DAPC, Northwest District Office in accordance with paragraph (B) of 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 emissions unit(s) that is (are) served by such control system(s).

28. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The Ohio EPA DAPC, Northwest District Office must be notified in writing of any transfer of this permit.

(Authority for term: OAC rule 3745-77-01(C))

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

If no emission limitation (or control requirement), operational restriction and/or control device parameter limitation 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 by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

The permittee is not required to submit a quarterly report which states that no deviations occurred during that quarter for the following situations:

a) where an emissions unit has deviation reporting requirements for a specific emission limitation, operational restriction, or control device parameter limitation that override the deviation reporting requirements specified in Standard Term and Condition A.2.c)(2); or

b) where an uncontrolled emissions unit has no monitoring, record keeping, or reporting requirements and the emissions unit's applicable emission limitations are established at the potential to emit; or

c) where the company's Responsible Official has certified that an emissions unit has been permanently shut down.

30. Submitting Documents Required by this Permit

All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event ofan alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the Ohio EPA DAPC, Northwest District Office, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the Responsible Official may be represented as provided through procedures established in Air Services.

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 ambient concentration of beryllium (Be) in the vicinity of the facility shall not exceed 0.01 microgram (ug)/cubic meter, averaged over a 30-day period, as specified in the National Emissions Standard for Hazardous Air Pollutants, 40 CFR 61.32 (b). The permittee shall maintain and operate all beryllium emitting emissions units subject to the beryllium NESHAP, including associated equipment for air pollution control, in a manner consistent with good air pollution control practice for minimizing emissions, and shall maintain compliance with the above standard.

   [Authority for term: OAC rule 3745-77-07(A)(13) and 40 CFR, Part 61, Subpart C]

3. The permittee shall operate an ambient monitoring network in the following manner:

   a) Stationary sources subject to 40 CFR 61.32(b) shall locate air sampling sites in accordance with a plan approved by the Director. Such sites shall be located in such a manner as is calculated to detect maximum concentrations of beryllium in the ambient air.

   b) All monitoring sites shall be operated continuously except for a reasonable time allowance for instrument maintenance and calibration, for changing filters, or for replacement of equipment needing major repair.

   c) Filters shall be analyzed and concentrations calculated within 30 days after filters are collected. Records of concentrations at all sampling sites and other data needed to determine such concentrations shall be retained at the source and made available for inspection by the Director for a minimum of 2 years.

   d) Concentrations measured at all sampling sites shall be reported to the Director every 30 days by a registered letter.

   e) The Director may at any time require changes in, or expansion of, the sampling network.

   [Authority for term: OAC rule 3745-77-07(A)(13) and 40 CFR, Part 61, Subpart C]

4. All sites and monitors shall be quality assured in accordance with 40 CFR 58, Appendix A (the requirements for lead shall be followed where possible). This will require quarterly audits of at least 25 percent of the monitoring site and collocated monitors in the following schedule (Table A-1):

1 – 5 sites	1 collocated monitor
6 – 20 sites	2 collocated monitors
>20 sites	3 collocated monitors

   [Authority for term: OAC rule 3745-77-07(A)(13) and 40 CFR, Part 61, Subpart C]

5. Pursuant to 40 CFR Part 64, the permittee has submitted, and the Ohio EPA has approved a compliance assurance monitoring (CAM) plan for emissions units P010, P049, P063, P064, P065, P066, P067, P077, P088, P111, and P128 at this facility. The permittee shall comply with the provisions of the plan during any operation of the aforementioned emissions units.

   [Authority for term: OAC rule 3745-77-07(A)(13) and 40 CFR, Part 64]

6. The primary beryllium production processes conducted at this facility make it subject to 40 CFR Part 63, Subpart GGGGGG, National Emission and Compliance Standards for Primary Beryllium Production Facilities. The permittee shall comply with all applicable requirements of 40 CFR Part 63, Subpart GGGGGG. In accordance with 40 CFR 63.11165, the standards and compliance requirements for Primary Beryllium Production Facilities is compliance with the requirements of 40 CFR 61.32 through 40 CFR 61.34 of the National Emission Standards for Beryllium.

   In accordance with 40 CFR 63.11166, the permittee shall comply with all of the requirements of the General Provisions in 40 CFR Part 61, Subpart A. The permittee shall also comply with the requirements of the General Provisions in 40 CFR Part 63, Subpart A, as follows: Section 63.1(a)(1) through (a)(10), and Section 63.1(b), except paragraph (b)(3), 63.1(c), and 63.1(e). 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.

   [Authority for term: OAC rule 3745-77-07(A)(13) and 40 CFR, Part 63, Subpart GGGGGG]

7. The following emissions unit located at this facility is subject to all applicable requirements as outlined in OAC rule 3745-31-03(A)(4)(b):

   a) P125 240 HP natural gas fired back-up generator (PBR #07654).

   [Authority for term: OAC rule 3745-77-07(A)(13)]

8. The following insignificant emissions units at this facility must comply with all applicable State and federal regulations, as well as any emissions limitations and/or control requirements contained within the identified permit-to-install for the emissions unit. The insignificant emissions units listed below are subject to one or more applicable requirement contained in a permit-to-install; or in the SIP-approved versions of OAC Chapters 3745-17, 3745-18, and 3745-21; and/or in 40 CFR, Part 61, Subpart C and 40 CFR Part 63, Subpart GGGGGG.

   a) B001 – 7.32 mmBtu/hr boiler;

   b) B008 – W. Administration bldg. boiler #1, <10 mmBtu/hr;

   c) B009 – W. Administration bldg. boiler #2, <10 mmBtu/hr;

   d) B010 – E. Administration bldg. boiler #1, <10 mmBtu/hr;

   e) B011 – E. Administration bldg. boiler #2, <10 mmBtu/hr;

   f) B012 – Plant Boiler #1, <10 mmBtu/hr;

   g) B013 – Plant Boiler #2, 9.4 mmBtu/hr;

h) B014 – Plant Boiler #3, 9.4 mmBtu/hr;

i) B015 – natural gas heater 6.5 mmBtu/hr, bldg. 55 (formerly Z020);

j) B016 – natural gas heater 6.5 mmBtu/hr, bldg. 55 (formerly Z021);

k) B017 – natural gas heater 6.5 mmBtu/hr, bldg. 55 (formerly Z022);

l) B018 – natural gas heater 6.5 mmBtu/hr, bldg. 56 (formerly Z023);

m) B019 – natural gas heater 6.5 mmBtu/hr, bldg. 56 (formerly Z024);

n) B020 – natural gas heater 6.5 mmBtu/hr, bldg. 56 (formerly Z025);

o) B021 – natural gas heater 6.5 mmBtu/hr, bldg. 56 (formerly Z026);

p) B022 – natural gas heater 6.5 mmBtu/hr, bldg. 56 (formerly Z027);

q) B023 – natural gas heater 6.5 mmBtu/hr, bldg. 56 (formerly Z028);

r) B024 – natural gas heater 6.5 mmBtu/hr, bldg. 56 (formerly Z029);

s) B025 – natural gas heater 6.5 mmBtu/hr, bldg. 56 (formerly Z030);

t) B026 – natural gas heater 5.2 mmBtu/hr, bldg. 26 (formerly Z031);

u) B027 – natural gas heater 5.0 mmBtu/hr, bldg. 42 (formerly Z032);

v) B028 – natural gas heater 5.0 mmBtu/hr, bldg. 42 (formerly Z033);

w) B029 – natural gas heater 4.7 mmBtu/hr, bldg. 14 (formerly Z034);

x) B030 – natural gas heater 4.2 mmBtu/hr, bldg. 09 (formerly Z035);

y) B031 – natural gas heater 4.0 mmBtu/hr, bldg. 14 (formerly Z036);

z) B032 – natural gas heater 4.0 mmBtu/hr, bldg. 16B (formerly Z037);

aa) B033 – maintenance waste oil heater/burner (formerly TMP 166662);

bb) F002 – solid waste/Be landfill (PTI #03-07273);

cc) P004 – ceramic spray dryer;

dd) P005 – control powder hood;

ee) P009 – heavy gauge weld & edge trimmer;

ff) P011 – cast shop auxiliary operations (PTI #03-8183);

gg) P012 – extrusion press;

hh) P014 – PMP brake shop;

ii) P016 – beryllium special products;

jj) P019 – vacuum hot press furnace operations;

kk) P023 – ball mill process;

ll) P029 – hot strip mill #1;

mm) P030 – heavy gauge car bottom hearth;

nn) P034 – RBT rod conditioning station;

oo) P035 – RBT abrasive cropping saw;

pp) P039 – alloy light gauge strip annealer;

qq) P045 – beryllium and copper recovery process;

rr) P047 – dross separator;

ss) P050 – NNS loading/unloading (PTI #03-3322);

tt) P052 – industrial waste water treatment plant (PTI #03-3647);

uu) P053 – light gauge slitter line (PTI #03-3924);

vv) P054 – Be/Cu dross mill (PTI #03-3961);

ww) P055 – NNS Be powder handling hood (PTI #03-4162);

xx) P057 – alloy equipment repair facility (PTI #03-5176);

yy) P058 – decontamination area (PTI #03-5176);

zz) P069 – alloy shot blaster (PTI #03-8367);

aaa) P070 – alloy plate saw #2 (PTI #03-8220);

bbb) P119 – Pebble Plant material handling system (PTI #03-17418);

ccc) P121 – Pebble Plant lab hoods (PTI #03-17418);

ddd) P132 – EDM machine (PTI #P0108829);

eee) P500 – ceramic wet screening (formerly Z040 and formerly part of P004);

fff) P501 – ceramic material handling (formerly Z041 and formerly part of P004);

ggg) P502 – south powder hood (formerly Z050);

hhh) P503 – billet preparation deburring (formerly Z090);

iii) P504 – bulk plate grinding (formerly Z091);

jjj) P505 – RBT wire tandem mill #1 (formerly Z096);

kkk) P506 – RBT wire tandem mill #2 (formerly Z097);

lll) P507 – RBT eitel press (formerly Z098);

mmm) P508 – whiting furnace rebuild, bldg. 1 (formerly Z102 and formerly part of P010);

nnn) P513 – PMP screening, loading, and blending (formerly Z230);

ooo) P514 – PMP attritioning (formerly Z232);

ppp) P515 – PMP impact grinding (formerly Z233);

qqq) P516 – whiting BeO pneumatic conveyor (formerly Z301);

rrr) P519 – alloy billet preparation (formerly Z900);

sss) P520 – RBT annealing/aging furnaces (formerly Z910);

ttt) P521 – alloy RBT machining (formerly Z920);

uuu) P522 – Z mill (formerly Z940);

vvv) P523 – scrap reclamation vacuum system (formerly Z956);

www) P524 – decontamination vacuum system (formerly Z957);

xxx) P526 – POR west oxide barreling product (formerly TMP163912);

yyy) P527 – POR east oxide barreling product (formerly TMP163913);

zzz) P528 – POR oxide mixing product (formerly TMP163914);

aaaa) P529 – IG #2 south (formerly TMP163915); and

bbbb) P530 – IG #2 north (formerly TMP163916).

[Authority for term: OAC rule 3745-77-07(A)(13)]

C. Emissions Unit Terms and Conditions

1. F001, Landfill Roadways and Parking Areas

Operations, Property and/or Equipment Description:

Landfill roadways and parking areas

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) [PTI #03-7036, issued 04-14-1993]	0.0081 tons/year of fugitive particulate matter of 10 microns or less (PM10) 0.018 tons/year of fugitive particulate emissions (PE) no visible PE except for 3 minutes during any 60-minute period, for any unpaved roadway no visible PE except for one minute during any 60-minute period, for any paved roadway best available control measures that are sufficient to minimize or eliminate visible PE of fugitive dust [See b)(2)e. through b)(2)j.]
b.	OAC rule 3745-17-08(B)	See b)(2)a., b)(2)b. and b)(2)c.
c.	OAC rule 3745-17-07(B)	See b)(2)a., b)(2)b. and b)(2)d.

(2) Additional Terms and Conditions

a. The paved roadways and parking areas that are covered by this permit are listed below:

i. Landfill paved roadways; and

ii. Landfill paved parking areas.

b. The unpaved roadways and parking areas that covered by this permit are listed below:

   i. Landfill unpaved roadways; and

   ii. Landfill unpaved parking areas.

c. This facility is not located within an Appendix A area, as identified in OAC rule 3745-17-08(B). Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08.

d. This emissions unit is exempt from the visible PE emissions limitation specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e).

e. The permittee shall employ best available control measures on all paved and 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 and unpaved roadways and parking areas by application of chemical stabilization/dust suppressants and/or watering at sufficient treatment frequencies to ensure compliance. The permittee has also committed to the use of sweeping (vacuum) and/or speed reduction (vehicular traffic shall not exceed 5 MPH) to ensure compliance for the paved roadways. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

f. 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 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.

g. 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.

h. Any unpaved roadway or parking area that is subsequently paved, will require a Permit to Install for paved roadways and parking areas.

i. 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.

j. 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 3745-31-05.

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:

paved and unpaved roadways and parking areas	minimum inspection frequency
all roads and parking areas	daily

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

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

a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;

b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;

c. the dates the control measures were implemented; and

d. on a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

The information required in d)(3)d. shall be 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 day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and

b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.

(2) 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) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:

a. Emission Limitations:

0.0081 tons/year of fugitive PM10

0.018 tons/year of fugitive PE

Applicable Compliance Method:

Compliance with fugitive PE and PM10 limitations shall be determined by using the emission factor equations in Sections 13.2.1 and 13.2.2, in Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume 1 (revised 12/03) for paved and unpaved roadways. Should further updates in AP-42 occur, the most current equations for unpaved roads shall be used.

b. Emission Limitation:

No visible PE 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 PE 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").

c. Emission Limitation:

No visible PE from paved roadways and parking areas except for a period of time not to exceed 1 minute during any 60-minute observation period.

Applicable Compliance Method:

If required, compliance with the visible PE 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").

g) Miscellaneous Requirements

(1) None.

2. L004, RBT Vapor Degreaser

Operations, Property and/or Equipment Description:

RBT Vapor Degreaser

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)(a) (PTI #P0104940, issued 07/09/2009)	Volatile Organic Compounds (VOC) emissions shall not exceed 11.08 tons per year. Work Practices and Control Design [See c)(1)] See b)(2)a.
b.	OAC rule 3745-21-09(O)	See b)(2)b. through b)(2)f.

(2) Additional Terms and Conditions

a. The BAT requirements for this emissions unit includes: freeboard ratio control, a refrigerated chiller, and an enclosed design.

b. The open top vapor degreaser shall be equipped with and shall employ a cover and safety switches as described below:

i. The cover shall be installed so that it can be opened and closed easily without disturbing the vapor zone.

ii. A condenser flow switch and thermostat (or other such device) shall shut off the sump heat if the condenser coolant is either not circulating or too warm.

iii. If using a spray application, a spray safety switch shall shut off the spray pump if the vapor level drops below any fixed spray nozzle.

iv. A vapor level control thermostat (or other such device) shall shut off the sump heat when the vapor level rises too high.

v. A water flow switch or water pressure switch (or other such device) shall shut off the sump heat if the water in a water-cooled condenser has no flow or no pressure, whichever is being monitored.

c. The open top vapor degreaser shall be equipped with a freeboard and a freeboard ratio greater than or equal to 0.75 shall be maintained. If the open top vapor degreaser opening is greater than 10 square feet, the cover must be powered or equipped with mechanical features whereby it can be readily closed when the degreaser is not in use.

d. Since the open top vapor degreaser opening is greater than 10 square feet, the cover shall be powered or equipped with mechanical features whereby it can be readily closed when the degreaser is not in use.

e. The open top vapor degreaser shall be installed with a refrigerated chiller that shall be operated to control the temperature of the solvent during cleaning operations.

f. The open top vapor degreaser shall be constructed with an enclosed design, i.e., the cover or door shall open only when the dry part is actually entering or exiting the degreaser.

c) Operational Restrictions

(1) The open top vapor degreaser shall be operated and maintained in accordance with the following practices to minimize solvent evaporation from the unit:

a. The cover shall be kept closed at all times except when processing workloads through the degreaser.

b. Solvent carry-out shall be minimized by:

i. racking parts so that solvent drains freely and is not trapped;

ii. moving parts in and out of the degreaser at less than 11 feet per minute;

iii. holding the parts in the vapor zone at least 30 seconds or until condensation ceases, whichever is longer;

iv. tipping out any pools of solvent on the cleaned parts before removal from the vapor zone; and

v. allowing parts to dry within the degreaser for at least 15 seconds or until visually dry, whichever is longer.

c. Porous and/or absorbent materials shall not be cleaned.

d. Workloads shall occupy no more than one-half of the degreaser's open-top area.

e. Solvent spraying shall only be conducted within the vapor level.

f. Solvent leaks shall be repaired immediately, or the degreased shall be shut down.

g. Solvent waste shall only be stored in covered containers.

h. The degreased shall be operated so that water cannot be visually detected in solvent exiting the water separator.

i. No ventilation fans shall be used near the degreaser opening.

j. When the cover is open, the open top vapor degreaser shall not be exposed to drafts greater than 131 feet per minute, as measured between 3 and 6 feet upwind and at the same elevation as the tank lip.

k. If a lip exhaust is used on the open top vapor degreaser, the ventilation rate shall not exceed 65 cubic feet per minute per square foot of degreaser open area, unless a higher rate is necessary to meet Occupational Safety and Health Administration requirements.

l. A permanent, conspicuous label, summarizing the operating procedures shall be posted on or near to the degreaser.

[OAC rule 3745-77-07(A)(1) and PTI #P0104940]

d) Monitoring and/or Recordkeeping Requirements

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

a. the types of solvents employed in the open top vapor degreaser, including the chemical name(s) and concentration;

b. a record of the freeboard ratio before and after each addition of make-up solvent and the date of the solvent addition;

c. any period of time in which the freeboard ratio is not maintained at 0.75 or greater;

d. all maintenance conducted on the refrigerated chiller, or the freeboard ratio control, including the date and activity;

e. records of all maintenance conducted on the enclosed design of the degreaser and the removal of any covers or doors, including the date, activity, and whether or not maintenance was conducted during cleaning operations or downtime; and

f. the temperature (or temperature range) at which each cleaning solvent is maintained.

These records shall be maintained for at least 5 years and shall be made available to the Director or his representative upon verbal or written request.

[OAC rule 3745-77-07(C)(1) and PTI #P0104940]

(2) The permittee shall maintain records of the following information, collected at the end of each year:

a. the total cleaning solvent added to the open top vapor degreaser or the amount purchased for use in the emissions unit during the year;

b. the total amount of solvent collected for disposal and/or recovery and shipped off-site during the year; and

c. the estimated annual VOC emissions from this emissions unit, calculated using the difference between the solvent used or purchased and the used solvent shipped offsite, adjusting the units to calculate the emissions in tons/year.

[OAC rule 3745-77-07(C)(1) and PTI #P0104940]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation reports documenting any period of time during which the freeboard was not maintained at a ratio of 0.75 or greater, and/or any period of time during which the open top vapor degreaser was not operated and maintained and/or its solvents handled in accordance with the requirements of this permit.

[OAC rule 3745-77-07(C)(1) and PTI #P0104940]

(2) The permittee shall submit quarterly deviation reports documenting any period of time during which the refrigerated chiller was not in operation during cleaning operations, and/or any period of time during which the open top vapor degreaser was not operated and maintained and/or its solvents handled in accordance with the requirements of this permit.

[OAC rule 3745-77-07(C)(1) and PTI #P0104940]

(3) The permittee shall submit quarterly deviation reports documenting any period of time during which the cover or door was open when parts were not actually entering or exiting the open top vapor degreaser; and/or any period of time during which the open top vapor degreaser was not operated and maintained and/or its solvents handled in accordance with the requirements of this permit.

[OAC rule 3745-77-07(C)(1) and PTI #P0104940]

(4) The permittee shall also submit annual reports that specify the total VOC emissions from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

[OAC rule 3745-77-07(C)(1) and PTI #P0104940]

f) Testing Requirements

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

a. Emission Limitation:

11.08 tons VOC/year

Applicable Compliance Method:

Compliance with the ton/yr emissions limitation shall be determined based upon the record keeping requirements contained in Section d)(2) of this permit.

[OAC rule 3745-77-07(C)(1) and PTI #P0104940]

(2) The permittee shall quantify VOC emissions through a material balance test, conducted for a sufficient period of time to compute an average emission rate. The following procedures shall be implemented in order to perform this material balance test and document the average VOC emissions from this emissions unit, as follows:

a. the degreaser tank shall be cleaned before testing begins;

b. records shall be maintained of the weight or volume of solvent used to initially fill the cleaning tank and the volume or weight of the make-up solvent added to the tank during the test period;

c. at the end of the test period (which can coincide with the normal solvent replacement cycle) the used solvent shall be pumped or drained out of the tank and the volume or weight measured using the same method applied in “b” above;

d. a record shall be maintained of the time (hours) passing between filling the tank with fresh solvent (start of test period) to the removal of the waste solvent, as well as, the number of parts or weight of the work load cleaned during the test period;

e. a sample of the used solvent shall be analyzed for the percent oil, metal chips, and other contaminants (the oil and solvent proportions can be estimated by weighing samples of used solvent before and after boiling off the solvent);

f. from the analysis of the used/waste solvent in “e”, the volume or weight of oils, dissolved from the cleaned parts or work load, shall be documented;

g. the total VOC emissions from the cleaning tank during the test period shall be calculated* from the volume or weight of solvent displaced by the oil, plus the total makeup solvent added to the tank to the same initial fill line, and this volume or weight multiplied by the solvent density (pounds per gallon) or VOC concentration (weight percent) of the solvent; or

h. if the final solvent line is below the initial solvent line in the tank when the waste solvent is pumped or drained out, the total VOC emissions from the cleaning tank during the test period shall equal the measured volume or weight of fresh solvent used to initially fill the tank, minus the total volume or weight of used solvent pumped/drained out, plus the volume or weight of solvent displaced by the oil [calculated in f)(2)e. above], plus the volume or weight of makeup solvent added to the tank during the test period, and this total volume or weight multiplied by the solvent density (pounds per gallon) or VOC concentration (weight percent) of the degreasing solvent; or

i. as an alternative to the procedures for estimating VOC emission from the cleaning tank in f)(2)g. or f)(2)h. above, the VOC emissions may be calculated as the difference between the total volume of solvent added to the cleaning tank during the test period (the amount used to initially fill the tank and the makeup solvent added) and (minus) the solvent contained in the used solvent pumped or drained out; and this difference in volume or weight multiplied by the solvent density (pounds per gallon) or VOC concentration (weight percent) of the degreasing solvent;

j. the average VOC emissions rate shall be calculated by dividing the total emissions calculated in f)(2)g.,)f(2)h., or f)(2)i. by the total hours of the test period (and/or divided by the total parts cleaned during the test period if an emissions per production rate is required) as recorded in f)(2)d.; and

k. if waste solvents pumped from the solvent cleaning tank are not immediately sealed to prevent evaporation and if a record is not maintained of the volume or amount sent offsite for recovery and/or disposal, such waste solvent losses shall be included with those calculated above in any required emissions report(s) if it cannot be demonstrated that this volume of material has been properly recovered or disposed of and/or has not been lost through evaporation to the atmosphere.

* If solvent measurements are recorded by volume the density of the solvent shall be used to convert gallons to pounds.

[OAC rule 3745-77-07(C)(1) and PTI #P0104940]

g) Miscellaneous Requirements

(1) None.

3. P006, Laundry Operations

Operations, Property and/or Equipment Description:

Laundry Operations – three natural gas-fired dryers with a total heat input of 3.08 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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI #03-16281, issued 03/10/2005)	0.01 lb particulate emissions (PE)/hr; 0.044 ton/yr 0.0000056 lb beryllium (Be)/hr, 0.000025 ton Be/yr Visible PE shall not exceed 5% opacity, as a 6-minute average. See b)(2)a.
b.	OAC rule 3745-17-11 (B)	See b)(2)b.
c.	OAC rule 3745-17-07 (A)	See b)(2)c.
d.	40 CFR, Part 61, Subpart C (40 CFR 61.30-34) [In accordance with 40 CFR 61.30, this emissions unit is located at a beryllium processing facility and has the potential to emit beryllium.]	See B.2., B.3., and B.4. – Facility-Wide Terms and Conditions

(2) Additional Terms and Conditions

a. Best available technology (BAT) control requirements for this emissions unit has been determined to be the use of a wire mesh screen with a 95% control efficiency for PE.

b. The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs/hr. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii),

Figure II of OAC rule 3745-17-11 does not apply. Also, Table I does not apply because the facility is located in Ottawa County.

c. This emissions unit is not subject to the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the 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 eliminate the abnormal visible emissions.

[OAC rule 3745-77-07(C)(1) and PTI #03-16281]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that:

a. identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and

b. describe any corrective actions taken to eliminate the abnormal visible particulate emissions.

These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

[OAC rule 3745-77-07(C)(1) and PTI #03-16281]

f) Testing Requirements

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

a. Emission Limitations:

0.01 lb PE/hr, 0.044 ton PE /yr

Applicable Compliance Method:

Compliance with the hourly PE limitation may be determined by multiplying the uncontrolled mass rate of PE, from the emissions unit, (0.2 lb PE/hr) by the wire mesh screen control factor of (1.0 - 0.95).*

The annual limitation was developed by multiplying the hourly limitation by 8760, and then dividing by 2,000. Therefore, provided compliance with the hourly PE limitation is maintained, compliance with the annual PE limitation shall also be demonstrated.

If required, the permittee shall demonstrate compliance with the hourly allowable PE limitation pursuant to Methods 1-5 of 40 CFR, Part 60, Appendix A.

* The wire mesh screen control efficiency is 95%.

[OAC rule 3745-77-07(C)(1) and PTI #03-16281]

b. Emission Limitation:

0.0000056 lb Be/hr, 0.000025 ton Be/yr

Applicable Compliance Method:

Compliance with the hourly Be limitation shall be determined by applying a maximum Be content of 0.056% to the controlled PE emission limitation of 0.01 lb/hr.

The annual limitation was developed by multiplying the hourly limitation by 8760, and then dividing by 2,000. Therefore, provided compliance with the hourly Be limitation is maintained, compliance with the annual Be limitation shall also be demonstrated.

If required, the permittee shall demonstrate compliance with the hourly allowable Be limitation pursuant to Methods 1-4, and 29 or 104 of 40 CFR, Part 60, Appendix A.

[OAC rule 3745-77-07(C)(1) and PTI #03-16281]

c. Emission Limitation:

Visible PE shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance in accordance with 40 CFR, Part 60, Appendix A, Method 9.

[OAC rule 3745-77-07(C)(1) and PTI #03-16281]

g) Miscellaneous Requirements

(1) None.

4. P010, Whiting Furnace

Operations, Property and/or Equipment Description:

Whiting Arc Furnace

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI #03-16097, issued 04/15/2008)	2.69 pounds sulfur dioxide (SO_2)/hour as an average, 11.8 tons SO_2/yr 1.62 pounds nitrogen oxides (NO_x)/hour as an average, 7.1 tons NO_x/yr 0.61 pound volatile organic compounds (VOC)/hour as an average, 2.67 tons VOC/yr 0.71 pound particulate matter less than 10 microns (PM10)/hour, 3.11 tons PM10/yr 0.0000326 pound beryllium (Be)/hour, 0.000143 ton Be/yr Visible particulate emissions (PE) shall not exceed 0% opacity as a 6-minute average, except during start-up and shutdown (from the stack). Visible fugitive PE shall not exceed 0% opacity, as a 3-minute average from any building opening. See b)(2)a., b)(2)b., b)(2)c., and b)(2)d.
b.	OAC rule 3745-31-10 through 31-20	86.5 pounds carbon monoxide (CO)/hour [as an average [See b)(2)d.], 133 pounds

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		CO/ton of alloy, 378.9 tons CO per rolling, 12-month period [See b)(2)e.]
c.	OAC rule 3745-17-07 (A)	See b)(2)f.
d.	OAC rule 3745-17-07 (B)	See b)(2)g.
e.	OAC rule 3745-17-08 (B)	See b)(2)h.
f.	OAC rule 3745-17-11 (B)	See b)(2)f.
g.	OAC rule 3745-18-06 (E)	See b)(2)f.
h.	40 CFR, Part 64 – Compliance Assurance Monitoring (CAM)	See d)(2) through d)(4), and e)(2).
i.	40 CFR, Part 61, Subpart C (40 CFR 61.30-34) [In accordance with 40 CFR 61.30, this emissions unit is located at a beryllium processing facility and has the potential to emit beryllium.]	See B.2., B.3., and B.4. – Facility-Wide Terms and Conditions

(2) Additional Terms and Conditions

a. The requirements of this rule also include compliance with the requirements of OAC rules 3745-31-10 through 3745-31-20.

b. All emissions of particulate matter are PM10.

c. The emission limitations of 2.69 lbs SO_2/hr, 1.62 lbs NOx/hr, 0.61 lb VOC/hr, 0.71 lb PM10/hr and 0.0000326 lb Be/hr were established for PTI purposes to reflect the potentials to emit for this emission unit. Therefore, no record keeping, deviation reporting or compliance method calculations are required to demonstrate compliance with these limitations.

d. The hourly emission limitation is based on the average over a five hour batch melting cycle.

e. The permittee shall employ Best Available Control Technology (BACT) for controlling CO emissions from this emissions unit. BACT has been determined to be the use of the 4th Hole Combustion Control System.

f. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).

g. This emissions unit is exempt from the visible emissions limitations specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e).

h. This facility is not located within an "Appendix A" area as identified in OAC rule 3745-17-08 (it is located in Ottawa County). Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. the total duration of any visible emission incident; and

c. any corrective actions taken to eliminate the visible emissions.

[OAC rule 3745-77-07(C)(1) and PTI #03-16097]

(2) 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. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. the total duration of any visible emission incident; and

c. any corrective actions taken to eliminate the visible emissions.

[OAC rule 3745-77-07(C)(1), PTI #03-16097, and 40 CFR Part 64]

(3) The CAM plan for this emissions unit has been developed for particulate emissions. The CAM performance indicator for the baghouse controlling this emissions unit is daily visible emissions checks. When the daily visible emission checks show operation outside the normal or usual manner of operation, the permittee shall take corrective actions to restore operation of the emissions unit and/or its control equipment to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions, and shall comply with the reporting requirements specified in Section e) below. The emissions unit and control equipment shall be operated in accordance with the approved CAM Plan or any approved revision of the Plan. The baghouse shall not be configured to have bypass capability.

[OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

(4) If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion

or exceedance, the permittee shall promptly notify the appropriate Ohio EPA District Office or local air agency, and if necessary, submit a proposed modification to the Title V permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, re-establishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

[OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that:

a. identify all days 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 eliminate the visible fugitive particulate emissions.

These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

[OAC rule 3745-77-07(C)(1) and PTI #03-16097]

(2) The permittee shall submit semi-annual written reports that:

a. identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and

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

These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

[OAC rule 3745-77-07(C)(1), PTI #03-16097, and 40 CFR Part 64]

f) Testing Requirements

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

a. The emissions testing shall be conducted within 6 months after issuance of this permit, and thereafter in accordance with Engineering Guide 16, which requires CO testing every 2.5 years, unless otherwise approved by the Ohio EPA, Northwest District Office.

b. The emission testing shall be conducted to demonstrate compliance with the following limits:

   i. 86.5 pounds CO/hour;

   ii. 133 pounds CO/ton of alloy;

   iii. 1.62 pounds NO_x/hour;

   iv. 0.71 pound PM10/hour; and

   v. 0.0000326 pound Be/hour.

c. The following test methods shall be employed to demonstrate compliance with the above emission limitations and verify emission factors:

   i. Methods 1 - 4 of 40 CFR Part 60, Appendix A;

   ii. for CO - Method 10 of 40 CFR Part 60, Appendix A;

   iii. for NO_x - Method 7 of 40 CFR Part 60, Appendix A;

   iv. for PM10 – Methods 201/201a and 202 of 40 CFR Part 51, Appendix M; and

   v. for Be – Method 29 or 104 of 40 CFR Part 60, Appendix A.

   Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

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

e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Division of Air Pollution Control. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the times and dates of the tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's air agency's refusal to accept the results of the emissions tests.

f. Personnel from the Ohio EPA District Office's air agency shall be permitted to witness the test, 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 unit and/or the performance of the control equipment. A comprehensive written report on

the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Division of Air Pollution Control within 30 days following completion of the tests.

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

[OAC rule 3745-77-07(C)(1) and PTI #03-16097]

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

a. Emission Limitations:

2.69 pounds SO_2/hour, (as an average), 11.8 tons SO_2/yr

0.61 pound VOC/hour, (as an average), 2.67 tons VOC/yr

Applicable Compliance Method:

The hourly mass emission limitations represent the potentials to emit and were based on recent performance testing. The annual emission limitations were developed by multiplying the respective hourly emission limitation by the maximum operating schedule of 8760 hours/year, and then dividing by 2000 lbs/ton. Therefore, if compliance is shown with the hourly limitations, compliance with the annual limitations shall also be demonstrated.

If required, the permittee shall use the following test methods to demonstrate compliance with the allowable mass emission rates: for SO_2, Methods 1 - 4, and 6 of 40 CFR Part 60, Appendix A, and for VOC, Methods 1 through 4 and Method 18, 25, 25a of 40 CFR, Part 60, Appendix A.

[OAC rule 3745-77-07(C)(1) and PTI #03-16097]

b. Emission Limitations:

86.5 pounds CO/hour, (as an average), 133 pounds CO/ton of alloy, 378.9 tons CO per rolling, 12-month period;

1.62 pounds NO_x/hour, (as an average), 7.1 tons NO_x/yr;

0.71 pound PM10/hour, 3.11 tons PM10/yr; and

0.0000326 pound Be/hour, 0.000143 ton Be/yr.

Applicable Compliance Method:

Compliance with the hourly CO, NO_x, PM10, and Be emissions limitations, and the 133 pounds CO/ton of alloy limitation, shall be demonstrated by the emissions testing requirements in section f)(1).

The annual emission limitations were developed by multiplying the respective hourly emission limitation by the maximum operating schedule of 8760 hours/year, and then dividing by 2000 lbs/ton. Therefore, if compliance is shown with the hourly limitations, compliance with the annual limitations shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #03-16097]

c. Emission Limitation:

Visible PE shall not exceed 0% opacity, as a 6-minute average, except during start-up and shutdown (from the stack).

Applicable Compliance Method:

If required, compliance with the visible emission limitation listed above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 2002, and the modifications listed in paragraphs (B)(4)(a) - (B)(4)(b) of OAC and rule 3745-17-03.

[OAC rule 3745-77-07(C)(1) and PTI #03-16097]

d. Emission Limitation:

Visible fugitive PE shall not exceed 0% opacity, as a 3-minute average from any building opening.

Applicable Compliance Method:

If required, compliance with the visible emission limitation listed above shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 2002, and the modifications listed in paragraphs (B)(4)(a) - (B)(4)(b) of OAC and rule 3745-17-03.

[OAC rule 3745-77-07(C)(1) and PTI #03-16097]

g) Miscellaneous Requirements

(1) None.

5. P011, Cast Shop Auxiliary Operations

Operations, Property and/or Equipment Description:

Cast Shop Auxiliary Operations

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) PTI #03-2135, issued 09/07/1985	See b)(2)a.
b.	OAC rule 3745-17-11(B)	See b)(2)b.
c.	OAC rule 3745-17-07(A)	See b)(2)c.
d.	40 CFR, Part 61, Subpart C (40 CFR 61.30-34) [In accordance with 40 CFR 61.30, this emissions unit is located at a beryllium processing facility and has the potential to emit beryllium.]	See B.2., B.3., and B.4. – Facility-Wide Terms and Conditions.

(2) Additional Terms and Conditions

a. There were no emissions limitations established pursuant to OAC rule 3745-31-05(A)(3).

b. The uncontrolled mass rate of particulate emissions (UMRE) from this emissions unit is less than 10 lbs/hr. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. Also, Table I does not apply because the facility is located in Ottawa County.

c. This emissions unit is exempt from the visible emissions limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.

d. In accordance with the Director's Final Findings and Orders dated 03/24/2008, the permittee has installed three (3) TRIBO.d^{2TM} continuous particulate emission

monitors downstream of three (3) secondary cartridge collectors located in the old cast shop, and an alarm transmission system at the permittee's facility. The permittee shall hereafter operate and maintain such monitors. The purpose of the TRIBO.d^{2TM} continuous particulate emission monitors shall be to early detect dust collector leaks or malfunctions. Process operators will be alarmed quickly of the non-routine conditions, which allows for timely investigation and troubleshooting.

The first TRIBO.d^{2TM} monitor has been installed downstream of the east secondary cartridge collector (C-32-1-2) associated with Alloy Induction Furnace #1 (emissions unit P064) and Alloy Induction Furnace #2 (emissions unit P065). The second TRIBO.d^{2TM} monitor has been installed downstream of the north secondary cartridge collector (C-32-2-2) associated with Alloy Induction Furnace #3 (emissions unit P066) and Alloy Induction Furnace #4 (emissions unit P067). The third TRIBO.d^{2TM} monitor has been installed downstream of the south secondary cartridge collector (C-32-4-3) associated with the Alloy Cast Shop Auxiliary Operations (emissions unit P011).

In addition to the local alarm at the graphic display recorder located in the old case shop, and an alarm signal has been installed that transmits a signal to the facility's Simplex centralized alarm monitoring system. The Simplex system provides audible alarm notification and text messaging to the central security control center, which is staffed 24 hours a day. The system has been set to generate a low-level alarm and a high-level alarm based on the emissions level relative to the baseline. The system (TRIBO.d^{2TM} monitor and the alarm transmission units) shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals.

The permittee has developed and shall maintain a written quality assurance (QA) plan to assess and document the continuing functioning and accuracy of the TRIBO.d^{2TM} monitor and the alarm transmission units. The permittee shall follow the recommendations in the U.S. EPA's document number EPA-454/R-98-015 (Fabric Filter Bag Leak Detection Guidance) in developing and maintaining the quality assurance plan for the TRIBO.d^{2TM} monitor.

Notwithstanding the reference to the Director's Final Findings and Orders dated 03/24/2008 contained in this permit term and condition, Materion may request and obtain a termination of the Director's Final Findings and Orders according to its terms.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall document all times the control devices serving this emissions unit were not employed when the emissions unit was in operation.

[OAC rule 3745-77-07(C)(1)]

(2) 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. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. the total duration of any visible emission incident; and

c. any corrective actions taken to eliminate the visible emissions.

[OAC rule 3745-77-07(C)(1)]

(3) The QA plan for the TRIBO.d^{2TM} continuous particulate emission monitoring system shall include the following elements:

a. Initial and periodic adjustment of the continuous particulate emission monitoring system including how the alarm set-point will be established;

b. Operation of the continuous particulate emission monitoring system including quality assurance procedures;

c. How the continuous particulate emission monitoring system will be maintained including a routine maintenance schedule and spare parts inventory list; and

d. How the continuous particulate emission monitoring system output shall be recorded and stored.

[OAC rule 3745-77-07(C)(1)]

(4) The initial adjustment of the TRIBO.d^{2TM} continuous particulate emission monitoring system, at a minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points and the alarm delay time (if applicable).

[OAC rule 3745-77-07(C)(1)]

(5) Following initial adjustmentof the TRIBO.d^{2TM} continuous particulate emission monitoring system, the owner or operator shall not adjust the averaging period, alarm set point, or alarm delay time without approval from the Ohio EPA NWDO, except as follows:

a. Once per quarter, the owner or operator may adjust the sensitivity of the continuous particulate emission monitoring system to account for seasonal effects including temperature and humidityaccording to the procedures identified in the site-specific QA plan.

b. If opacities greater than zero percent are observed over four consecutive 15-second observations during the daily opacity observations required and the alarm

on the continuous particulate emission monitoring system does not sound, the owner or operator shall lower the alarm set point on the continuous particulate emission monitoring system to a point where the alarm would have sounded during the period when the opacity observations were made.

[OAC rule 3745-77-07(C)(1)]

(6) When the TRIBO.d^{2TM} continuous particulate emission monitoring system alarm indicates operation outside the indicator range, the permittee shall take corrective actions to restore operation of the emissions unit and/or its control equipment to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions, and shall comply with the reporting requirements specified in Section e) below. The emissions unit and control equipment shall be operated in accordance with the approved QA Plan or any approved revision of the Plan. The baghouse shall not be configured to have bypass capability.

[OAC rule 3745-77-07(C)(1)]

(7) If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance, the permittee shall promptly notify the appropriate Ohio EPA District Office or local air agency, and if necessary, submit a proposed modification to the Title V permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, re-establishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

[OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

a. each period of time when the TRIBO.d^{2TM} continuous particulate emission monitoring system for the south secondary cartridge collector (C-32-4-3) associated with the Alloy Cast Shop Auxiliary Operations was outside of the acceptable range;

b. an identification of each incident of deviation described in e)(1)a. where a prompt investigation was not conducted;

c. an identification of each incident of deviation described in e)(1)a. where prompt corrective action was determined to be necessary and was not taken; and

d. an identification of each incident of deviation described in e)(1)a. where proper records were not maintained for the investigation and/or the corrective action.

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.

[OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and

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

These reports shall be submitted to the appropriate Ohio EPA district office or local field office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

6. P015, Graphite Machine Shop

Operations, Property and/or Equipment Description:

Graphite Machine Shop

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI #P0106981, issued 12/09/2010)	Particulate matter equal to or less than 10 microns in size (PM10) shall not exceed 0.00027 lb/hr and 0.0012 tons/yr Beryllium (Be) emissions shall not exceed 0.000014 lb/hr and 0.00006 ton/yr. Visible particulate emissions (PE) shall not exceed 0% opacity, as a six-minute average. See b)(2)a. and c)(1)
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	See b)(2)b.
c.	OAC rule 3745-31-05(A)(3), as effective 12/01/06	See b)(2)c.
d.	OAC rule 3745-17-11(B)	See b)(2)d.
e.	OAC rule 3745-17-07(A)	See b)(2)e.
f.	40 CFR, Part 61, Subpart C (40 CFR 61.30-34) [In accordance with 40 CFR 61.30, this emissions unit is located at a beryllium processing facility and has the potential to emit beryllium.]	See B.2., B.3., and B.4. – Facility-Wide Terms and Conditions

(2) Additional Terms and Conditions

a. This permit establishes the following federally enforceable emission limitations for the purpose of limiting the potential to emit (PTE) to avoid Prevention of Significant Deterioration (PSD) requirements. The federally enforceable emission limitations are based on the operational restriction contained in c)(1) which requires control equipment:

i. 0.00027 lb PM10/hr and 0.0012 tonPM10/yr;

ii. 0.000014 lb Be/hr and 0.00006 ton Be/yr; and

iii. Visible PE shall not exceed 0% opacity, as a six-minute average.

All emissions of particulate matter from the baghouse stack are PM_{10} and include Be.

b. The requirements of this rule are equivalent to the requirements established pursuant to OAC rule 3745-31-05(D); therefore, the permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit.

On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 Changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, the requirements of 3745-31-05(A)(3) as effective 12-1-06 will no longer apply.

It should be noted that the emission limitations and control requirements established pursuant to OAC rule 3745-31-05(D) will remain applicable after the above SIP revisions are approved by U.S. EPA.

c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3)(a), as effective December 1, 2006, do not apply to the PM_{10} emissions from this air contaminant source since the controlled potential to emit (PTE) is less than 10 tons per year taking into consideration federally enforceable requirements established under OAC rule 3745-31-05(D).

d. The uncontrolled mass rate of particulate emissions (UMRE) from this emissions unit is less than 10 lbs/hr. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. Also, Table I does not apply because the facility is located in Ottawa County.

e. This emissions unit is exempt from the visible emissions limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.

c) Operational Restrictions

(1) The following operational restriction has been included in this permit for the purpose of establishing federally enforceable requirements which limit PTE [see b)(2)a.]:

a. All particulate emissions from this emissions unit shall be vented to a primary cyclone (C-34-10-2) and secondary baghouse (C-34-10-3), in series, or primary filter (C-34-10-1), capable of achieving a maximum outlet concentration of 0.000004 grains/dscf of PM10.

[OAC rule 3745-77-07(A)(1) and PTI #P0106981]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log, as well as the date and time the daily check was performed. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. the total duration of any visible emission incident; and

c. any corrective actions taken to eliminate the visible emissions.

[OAC rule 3745-77-07(C)(1) and PTI #P0106981]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and

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

These reports shall be submitted to the appropriate Ohio EPA district office or local field office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[OAC rule 3745-77-07(C)(1) and PTI #P0106981]

f) Testing Requirements

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

a. Emission Limitation:

0.000004 gr PM10/dscf

Applicable Compliance Method:

The 0.000004 gr PM10/dscf emission limitation was established in accordance with the maximum outlet grain loading concentration for the baghouse. If required, the permittee shall demonstrate compliance with the gr PM10/dscf by testing in accordance with Methods 201/201A and 202 of 40 CFR, Part 51, Appendix M. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

[OAC rule 3745-77-07(C)(1) and PTI #P0106981]

b. Emission Limitations:

0.00027 lb PM10/hr and 0.0012 ton PM10/yr

Applicable Compliance Method:

The hourly limitation was established by multiplying the maximum baghouse outlet concentration of 0.000004 gr/dscf, the maximum volumetric air flow rate (8,000 acfm) contributed from this emissions unit to the baghouse, and using the following conversion factors in order to convert to pounds per hour: 1 lb/7000 grains, 60 minutes/hr.

The annual limitation was established by multiplying the maximum baghouse outlet concentration of 0.000004 gr/dscf, the maximum volumetric air flow rate (8,000 acfm) contributed from this emissions unit to the baghouse, and using the following conversion factors in order to convert to tons per year: 1 lb/7000 grains, 60 minutes/hour, 8760 hours/year and 1 ton/2000 lbs. Therefore, provided compliance is demonstrated with the 0.000004 gr PM10/dscf limitation, compliance with the annual limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0106981]

c. Emission Limitations:

0.000014 lb Be/hr and0.00006 ton Be/yr

Applicable Compliance Method:

Compliance with the hourly Be limitation may be determined by multiplying the maximum Be content of 5.0 %, by weight, by the controlled PM10 emission

limitation of 0.000004 gr/dscf, the baghouse's maximum volumetric air flow rate (8,000 acfm), 60 minutes/hour, and dividing by 7000 gr/lb. If required, the permittee shall demonstrate compliance with the hourly allowable Be limitation in accordance with Methods 1-4, and 29 or 104 of 40 CFR, Part 60, Appendix A.

The annual limitation was established by multiplying the hourly emission limitation by 8760 hrs/year, and then dividing by 2000 lbs/ton. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0106981]

d. Emission Limitation:

Visible PE shall not exceed 0% opacity, as a six-minute average from the stack serving this emissions unit.

Applicable Compliance Method:

Compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

[OAC rule 3745-77-07(C)(1) and PTI #P0106981]

g) Miscellaneous Requirements

(1) None.

7. P021, PMP Scrap Reclamation

Operations, Property and/or Equipment Description:

Powder Metal Products – Scrap Reclamation Operations

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 operations(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. 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 3745-17-08(B)	See b)(2)a.
b.	OAC rule 3745-17-07(B)	See b)(2)b.
c.	40 CFR, Part 61, Subpart C (40 CFR 61.30-34) [In accordance with 40 CFR 61.30, this emissions unit is located at a beryllium processing facility and has the potential to emit beryllium.]	See B.2., B.3., and B.4. – Facility-Wide Terms and Conditions

(2) Additional Terms and Conditions

a. This facility is not located within an Appendix A area, as identified in OAC rule 3745-17-08(B). Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08.

b. This emissions unit is exempt from the visible PE emissions limitation specified in OAC rule 3745-17-07(B), pursuant to OAC rule 3745-17-07(B)(11)(e).

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

8. P037, Be Oxide Furnace. #9

Operations, Property and/or Equipment Description:

Beryllium Oxide Furnace #9

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI #03-1948, issued 11-07-1984)	1.2 lbs particulate emissions (PE)/hr See b)(2)a.
b.	OAC rule 3745-17-11(B)	See b)(2)b.
c.	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a 6 minute average, except as provided by rule.
d.	OAC rule 3745-18-06(E)	Exempt [See b)(2)c.]
e.	40 CFR, Part 61, Subpart C (40 CFR 61.30-34) [In accordance with 40 CFR 61.30, this emissions unit is located at a beryllium processing facility and has the potential to emit beryllium.]	See B.2., B.3., and B.4. – Facility-Wide Terms and Conditions

(2) Additional Terms and Conditions

a. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).

b. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

c. The maximum process weight rate for this emissions unit is less than 1000 lbs/hr. Therefore, pursuant to OAC rule 3745-18-06(C), this emissions unit is exempt from OAC rule 3745-18-06(E).

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the process baghouse during operation of this emissions unit. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop, in inches of water, across the process baghouse on daily basis.

[OAC rule 3745-77-07(C)(1)]

(2) Whenever the monitored value for the baghouse pressure drop deviates from the range specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

[OAC rule 3745-77-07(C)(1)]

(3) In response to each required investigation to determine the cause of a baghouse pressure drop deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified below, 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 description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the pressure drop reading immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

[OAC rule 3745-77-07(C)(1)]

(4) The acceptable range for the pressure drop across the baghouse is 1 to 10 inches of water.

[OAC rule 3745-77-07(C)(1)]

(5) This baghouse pressure drop range is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the range based upon information obtained during future particulate emission tests that demonstrate compliance with the allowable particulate emission rate for this emissions unit. In addition, approved revisions to the ranges will not constitute a relaxation of the

monitoring requirements of this permit and may be incorporated into the Title V permit for the facility by means of a minor permit modification.

[OAC rule 3745-77-07(C)(1)]

(6) The permittee shall properly install, operate, and maintain equipment to monitor the following parameters daily, during operation of this emissions unit:

a. the pressure drop, in inches of water, across each scrubber; and

b. the water flow rate, in gallons per minute, across each scrubber.

[OAC rule 3745-77-07(C)(1)]

(7) The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record following on a daily basis:

a. the pressure drop, in inches of water, across each scrubber; and

b. the water flow rate across each scrubber.

[OAC rule 3745-77-07(C)(1)]

(8) Whenever a monitored value for any of the parameters specified in d)(7) above deviates from (falls below) the acceptable value specified in d)(10), the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

[OAC rule 3745-77-07(C)(1) and PTI #03-1948]

(9) In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable value specified below, 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 description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the pressure drop readings immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

[OAC rule 3745-77-07(C)(1)]

(10) The acceptable values for parameters specified in d)(7) are as follows for all times while the emissions unit is in operation:

a. the acceptable value for the pressure drop across each scrubber is a minimum of 1.5 inches of water; and

b. the acceptable value for the water flow rate of each scrubber is a minimum of 100 gallons per minute.

[OAC rule 3745-77-07(C)(1)]

(11) The values above are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the value(s) based upon information obtained during future emissions tests that demonstrate compliance with the allowable PE emissions rates for this emissions unit. In addition, approved revisions to the value(s) will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an a minor permit modification.

[OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit quarterly reports in accordance with the Standard Terms and Conditions of this permit that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

a. each period of time when the pressure drop across the baghouse field was outside of the acceptable range;

b. an identification of each incident of deviation described in e)(1)a. where a prompt investigation was not conducted;

c. an identification of each incident of deviation described in e)(1)a. where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and

d. an identification of each incident of deviation described in e)(1)a. where proper records were not maintained for the investigation and/or the corrective action.

[OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

a. each period of time when the pressure drop across the scrubber was less than the applicable limit contained in this permit;

b. each period of time when the scrubber water flow rate was less than the applicable limit contained in this permit;

c. an identification of each incident of deviation described in e)(2)a. and e)(2)b. above where a prompt investigation was not conducted;

d. an identification of each incident of deviation described in a. and b. where prompt corrective action, that would bring the pressure drop and/or the scrubber water flow rate into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. an identification of each incident of deviation described in e)(2)a. ande)(2)b. where proper records were not maintained for the investigation and/or the corrective action.

[OAC rule 3745-77-07(C)(1)]

(3) 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, starting with the quarter immediately following the installation of the monitoring equipment.

[OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. <u>Emission Limitation:</u>

1.2 lbs particulate emissions (PE)/hr

<u>Applicable Compliance Method:</u>

Compliance with the hourly emission limitation may be determined by multiplying 3.65 lbs/hr (the total uncontrolled mass rate of emissions) by the scrubber control factor of (1.0 – 0.90).*

If required, the permittee shall demonstrate compliance with the hourly allowable PE limitation pursuant to Methods 1 – 5 of 40 CFR Part 60, Appendix A.

*Emissions from this source are vented to both a scrubber (with a control efficiency of 90%), and a baghouse (with a control efficiency of 99%). For the compliance demonstration, the conservative control efficiency of 90% was utilized.

[OAC rule 3745-77-07(C)(1) and PTI #03-1948]

b. <u>Emission Limitation:</u>

Visible particulate emissions shall not exceed 20% opacity, as a 6 minute average, except as provided by rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance pursuant to the methods specified in OAC rule 3745-17-03(B)(1).

[OAC rule 3745-77-07(C)(1) and PTI #03-1948]

g) Miscellaneous Requirements

(1) None.

9. P038, Billet Prep. Billet Homogenization. Furnace

Operations, Property and/or Equipment Description:

Billet Prep./Billet Homogenization. Furnace

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI #03-1709, issued 03-20-1985)	See b)(2)a.
b.	OAC rule 3745-17-11(B)	See b)(2)b.
c.	OAC rule 3745-17-07(A)	See b)(2)c.
d.	OAC rule 3745-18-06(B)	39 lbs sulfur dioxide (SO2)/hr

(2) Additional Terms and Conditions

a. The requirements established pursuant to this rule are equivalent to the requirements of OAC rule 3745-18-06(E).

b. The uncontrolled mass rate of particulate emissions (UMRE) from this emissions unit is less than 10 lbs/hr. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. Also, Table I does not apply because the facility is located in Ottawa County.

c. This emissions unit is exempt from the visible emissions limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.

c) Operational Restrictions

(1) The permittee shall burn only natural gas in this emissions unit.

[OAC rule 3745-77-07(A)(1) and PTI #03-1709]

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 and quantity of fuel burned in this emissions unit.

[OAC rule 3745-77-07(C)(1) and PTI #03-1709]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[OAC rule 3745-77-07(C)(1) and PTI #03-1709]

f) Testing Requirements

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

a. <u>Emission Limitation:</u>

39 lbs SO2/hr

<u>Applicable Compliance Method:</u>

The emissions unit is assumed to be in compliance with the SO2 limitation above since the amount of SO2 generated in this emissions unit is negligible.

[OAC rule 3745-77-07(C)(1) and PTI #03-1709]

g) Miscellaneous Requirements

(1) None.

2. P048, Recycle Facility, (solvent extraction, solution prep, electrowinning) with four packed tower scrubbers

Operations, Property and/or Equipment Description:

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI #P0106977, issued 12/09/2010)	Particulate matter equal to or less than 10 microns in size (PM10) shall not exceed 0.34 lb/hr and 1.47 tons/yr Beryllium (Be) emissions shall not exceed 0.00002 lb/hr and 0.000088 ton/yr. Visible particulate emissions (PE) shall not exceed 5% opacity, as a six-minute average. See b)(2)a. and c)(1)
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	See b)(2)b.
c.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06	See b)(2)c.
d.	OAC rule 3745-17-11(B)	See b)(2)d.
e.	OAC rule 3745-17-07(A)	See b)(2)e.
f.	40 CFR, Part 61, Subpart C (40 CFR 61.30-34) [In accordance with 40 CFR 61.30, this emissions unit is located at a beryllium processing facility and has the potential to emit beryllium.]	See B.2., B.3., and B.4. – Facility-Wide Terms and Conditions

(2) Additional Terms and Conditions

a. This permit establishes the following federally enforceable emission limitations for the purpose of limiting potential to emit (PTE) to avoid Prevention of Significant Deterioration (PSD) requirements. The federally enforceable emission limitations are based on the operational restriction contained in c)(1) which requires control equipment:

i. 0.34 lb PM10/hr and 1.47 tonPM10/yr;

ii. 0.00002 lb Be/hr and 0.000088 ton Be/yr; and

iii. Visible particulate emissions shall not exceed 5% opacity, as a six-minute average.

All emissions of particulate matter from the scrubber stack are PM_{10} and include Be.

b. The requirements of this rule are equivalent to the requirements established pursuant to OAC rule 3745-31-05(D); therefore, the permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit.

On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 Changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, the requirements of 3745-31-05(A)(3) as effective 12-1-06 will no longer apply.

It should be noted that the emission limitations and control requirements established pursuant to OAC rule 3745-31-05(D) will remain applicable after the above SIP revisions are approved by U.S. EPA.

c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3)(a), as effective December 1, 2006, do not apply to the PM_{10} emissions from this air contaminant source since the controlled potential to emit (PTE) is less than 10 tons per year taking into consideration federally enforceable requirements established under OAC rule 3745-31-05(D).

d. The uncontrolled mass rate of particulate emissions (UMRE) from this emissions unit is less than 10 lbs/hr. Therefore, pursuant to OAC rule 3745-17-

11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. Also, Table I does not apply because the facility is located in Ottawa County.

e. This emissions unit is exempt from the visible emissions limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.

c) Operational Restrictions

(1) The following operational restriction has been included in this permit for the purpose of establishing federally enforceable requirements which limit PTE [see b)(2)a.]:

a. All PE emissions from this emissions unit shall be vented to a wet scrubber achieving a 80 % control efficiency for PM10 and Be and an associated 5% opacity, as a six-minute average.

[OAC rule 3745-77-07(A)(1) and PTI #P0106977]

d) Monitoring and/or Recordkeeping Requirements

(1) In order to maintain compliance with the applicable emission limitations contained in this permit, the acceptable scrubber liquid flow rate and range for the pressure drop across each scrubber that must be maintained in order to demonstrate compliance, shall be as follows:

Control Equipment	Equipment ID	Minimum pressure drop in inches water	Minimum water flow rate (gpm)
Xerxes 736-Sp	C-46-2-1	1	145
Xerxes 735-P	C-46-3-1	1	100
Wet Plant ARCO	C-9-1-32	3	70
Xerxes 734-P	C-9-1-4	1	60

[OAC rule 3745-77-07(C)(1) and PTI #P0106977]

(2) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop across each scrubber (in inches of water) 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 each scrubber and each scrubber's liquid flow rate on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

[OAC rule 3745-77-07(C)(1) and PTI #P0106977]

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

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

[OAC rule 3745-77-07(C)(1) and PTI #P0106977]

(4) 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 parameterswithin 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/or 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.

[OAC rule 3745-77-07(C)(1) and PTI #P0106977]

(5) 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 appropriate Ohio EPA District Office or local air agency. 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 particulate emission rate for this/these emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the

monitoring requirements of this permit and may be incorporated into this permit by means of ana minor permit modification.

[OAC rule 3745-77-07(C)(1) and PTI #P0106977]

e) Reporting Requirements

(1) The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

a. each period of time (start time and date, and end time and date)when the pressure drop across each scrubber and/or the liquid flow rate was/were outside of the appropriate range or deviations from the parameters in d)(1) above or exceeded the applicable limit contained in this permit;

b. any period of time (start time and date, and end time and date)when the emissions unit(s) was/were in operation and the process emissions were not vented to the scrubber;

c. each incident of deviation described in e)(1)a. or e)(1)b. where a prompt investigation was not conducted;

d. each incident of deviation described in e)(1)a. or e)(1)b. where prompt corrective action, that would bring the pressure drop and/or liquid flow rate into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. each incident of deviation described in e)(1)a. or e)(1)b. where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

[OAC rule 3745-77-07(C)(1) and PTI #P0106977]

f) Testing Requirements

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

a. <u>Emission Limitations</u>:

0.34 lb of PM10/hr, 1.47 ton PM10 /yr

<u>Applicable Compliance Method</u>:

The hourly PM10 emission limitation was established by multiplying the actual emission rate of 0.28 lbs PM10/hr, established during the most recent stack test which showed compliance (10/07/2004), by 120%. If required, compliance with the PM10 limitation shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 51, Appendix M, Methods 201/201A and

202. Alternative U.S.EPA-approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office (NWDO).

The ton/year limitation was established by multiplying the pounds per hour limitation by 8760 hours per year, and applying a conversion factor of 1 ton/2000 lbs. Therefore, provided compliance is shown with the hourly limitation, compliance with the annual limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0106977]

b. Emission Limitations:

0.00002 lb Be/hr, 0.000088 ton Be/yr

Applicable Compliance Method:

The hourly Be emission limitation was established by multiplying the actual emission rate of 1.67E-05 lbs PM10/hr, established during the most recent stack test which showed compliance (10/07/2004), by 120%. If required, compliance with the Be limitation shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 – 4, and 29 or 104. Alternative U.S.EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

The ton/year limitation was established by multiplying the pounds per hour limitation by 8760 hours per year, and applying a conversion factor of 1 ton/2000 lbs. Therefore, provided compliance is shown with the hourly, compliance with the annual limitation shall be assumed.

[OAC rule 3745-77-07(C)(1) and PTI #P0106977]

d. Emission Limitation:

Visible PE shall not exceed 5% opacity, as a six-minute average from the stack serving this emissions unit.

Applicable Compliance Method:

If required, compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

[OAC rule 3745-77-07(C)(1) and PTI #P0106977]

g) Miscellaneous Requirements

(1) None.

10. P051, NNS Iron & Copper Leaching with packed tower scrubber

Operations, Property and/or Equipment Description:

NNS Iron & Copper Leaching with packed tower scrubber

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 operations(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. 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.	ORC 3704.03(T)	See b)(2)a.
b.	OAC rule 3745-31-05(D) (PTI #P0106978, issued 12/09/2010)	Particulate matter equal to or less than 10 microns in size (PM10) shall not exceed 0.20 lb/hr and 0.88 ton/yr. Beryllium (Be) emissions shall not exceed 0.00006 lb/hr and 0.00026 ton/yr. Visible particulate emissions (PE) shall not exceed 5% opacity, as a six-minute average. Nitrogen oxides (NOx) emissions shall not exceed 9.1 pounds/hour (lbs/hr) and 39.9 tons per year (tons/yr). See b)(2)b., c)(1), and c)(2)
c.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	See b)(2)c.
d.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06	See b)(2)d.
e.	OAC rule 3745-17-11(B)	See b)(2)e.
f.	40 CFR, Part 61, Subpart C (40 CFR 61.30-34) [In accordance with 40 CFR 61.30, this emissions unit is located at a beryllium processing facility and has	See B.2., B.3., and B.4. – Facility-Wide Terms and Conditions.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	the potential to emit beryllium.]	

(2) Additional Terms and Conditions

a. The Best Available Technology (BAT) requirements under ORC 3704.03(T) have been determined to be compliance with the 39.9 tons NOx per year limitation established under OAC rule 3745-31-05(D).

b. This permit establishes the following federally enforceable emission limitations for the purpose of limiting potential to emit (PTE) to avoid Prevention of Significant Deterioration (PSD) requirements. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1) and c)(2):

i. 0.20 lb PM10/hr and 0.88 tonPM10/yr;

ii. 0.00006 lb Be/hr and 0.00026 ton Be/yr;

iii. Visible particulate emissions shall not exceed 5% opacity, as a six-minute average; and

iv. 9.1 lbs NOx/hr and 39.9 tons NOx/yr.

All emissions of particulate matter from the scrubber stack are PM_{10} and include Be.

c. The requirements of this rule are equivalent to the requirements established pursuant to OAC rule 3745-31-05(D); therefore, the permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit.

On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 Changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, the requirements of 3745-31-05(A)(3) as effective 12-1-06 will no longer apply.

It should be noted that the emission limitations and control requirements established pursuant to OAC rule 3745-31-05(D) will remain applicable after the above SIP revisions are approved by U.S. EPA.

d. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3)(a), as effective December 1, 2006, do not apply to the PM_{10} emissions from this air contaminant source since the controlled potential to emit (PTE) is less than 10 tons per year taking into consideration federally enforceable requirements established under OAC rule 3745-31-05(D).

e. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule OAC rule 3745-31-05(D).

c) Operational Restrictions

(1) The following operational restriction has been included in this permit for the purpose of establishing federally enforceable requirements which limit the PTE for PM10 and Be [see b)(2)b.]:

a. This emissions unit shall be vented to a wet scrubber achieving a 95 % control efficiency and an associated 5% opacity, as a six-minute average.

[OAC rule 3745-77-07(A)(1) and PTI #P0106978]

(2) The following operational restriction has been included in this permit for the purpose of establishing federally enforceable requirements which limit the PTE for NOx [see b)(2)b.]:

a. This emissions unit shall employ the following procedures for operation of the nitric acid bath:

i. Start each batch with a nitric acid solution no greater than 220 grams per liter (g/l);

ii. Make the appropriate urea additions, at the rate of 0.3 lbs urea per lb of steel etched; and

iii. Maintain the temperature of the acid bath at less than 140 degrees Fahrenheit during the etching cycle.

[OAC rule 3745-77-07(A)(1) and PTI #P0106978]

d) Monitoring and/or Recordkeeping Requirements

(1) In order to maintain compliance with the applicable emission limitations contained in this permit, the acceptable scrubber liquid flow rate and range for the pressure drop across the scrubber that must be maintained in order to demonstrate compliance shall not be less than 1 gallon per minute and shall be between 1 to 5 inchesof water, respectively.

The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop across the scrubber (in pounds per square inch, 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 daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

[OAC rule 3745-77-07(C)(1) and PTI #P0106978]

(2) In order to maintain compliance with the applicable NOx emissions limitation contained in this permit, the permittee must start each batch with a nitric acid solution no greater than 220 grams per liter (g/l), and make the appropriate urea additions, at the rate of 0.3 pounds (lbs) urea per pound (lb) of steel etched. The permittee must also maintain the temperature of the acid bath at less than 140 degrees Fahrenheit during the etching cycle.

The permittee shall record the concentration of the nitric acid solution at the start of each batch, and shall record the rate of urea additions in lbs of urea per lb of steel etched.

The permittee shall properly install, operate, and maintain equipment to monitor the temperature of the acid bath during the etching cycle. The permittee shall record the temperature of the acid bath during each etching cycle. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

[OAC rule 3745-77-07(C)(1) and PTI #P0106978]

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

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

[OAC rule 3745-77-07(C)(1) and PTI #P0106978]

(4) 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 or concentration/temperature parameters, within the acceptable range(s), or at or above the minimum limit(s), or at or below the maximum 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 concentration, temperature, pressure drop and/or 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.

[OAC rule 3745-77-07(C)(1) and PTI #P0106978]

(5) These ranges and/or limits for the nitric acid bath starting concentration, urea additions, temperature of the nitric acid bath, scrubber pressure drop and liquid flow rate across the scrubber, are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted range or limit for the concentration, temperature, pressure drop or liquid flow rate based upon information obtained during future emission tests that demonstrate compliance with the allowable particulate emission rate for this/these emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

[OAC rule 3745-77-07(C)(1) and PTI #P0106978]

e) Reporting Requirements

(1) The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

a. each period of time (start time and date, and end time and date)when the pressure drop across the scrubber and/or the liquid flow rate was/were outside of the appropriate range or deviations from the parameters in d)(1) above or exceeded the applicable limit contained in this permit;

b. any period of time (start time and date, and end time and date)when the emissions unit(s) was/were in operation and the process emissions were not vented to the scrubber;

c. each incident of deviation described in e)(1)a. or e)(1)b. where a prompt investigation was not conducted;

d. each incident of deviation described in e)(1)a. or e)(1)b. where prompt corrective action, that would bring the pressure drop and/or liquid flow rate into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. each incident of deviation described in e)(1)a. or e)(1)b. where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

[OAC rule 3745-77-07(C)(1) and PTI #P0106978]

(2) The permittee shall submit quarterly reports that identify the following information concerning the maintenance and operation of the nitric acid bath etching process which occurs during the operation of this emissions unit:

a. each time when the nitric acid solution was not started and maintained in accordance with the parameters in d)(2) above;

b. each period of time (start time and date, and end time and date)when the temperature of the acid bath exceeded the applicable limit contained in d)(2) above;

c. each incident of deviation described in e)(2)a. or e)(2)b. where a prompt investigation was not conducted;

d. each incident of deviation described in e)(2)a. or e)(2)b. where prompt corrective action, that would bring the nitric acid solution concentration and/or temperature into compliance with an acceptable concentration or temperature, was determined to be necessary and was not taken; and

e. each incident of deviation described in e)(2)a. or e)(2)b. where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

[OAC rule 3745-77-07(C)(1) and PTI #P0106978]

f) Testing Requirements

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

a. The emissions testing shall be conducted within 6 months prior to the expiration of this permit, unless otherwise approved by the Ohio EPA, Northwest District Office.

b. The emissions testing shall be conducted to demonstrate compliance with the following limits:

i. the mass emission limitations of 9.1 lbs NOx/hr, 0.00006 lb Be/hr, and 0.20 lb PM10/hr.

c. The following test methods shall be employed to demonstrate compliance with the above emission limitations and verify emission factors:

i. Methods 1 - 4 of 40 CFR Part 60, Appendix A;

ii. for NOx – Method 7 of 40 CFR Part 60, Appendix A;

iii. for Be - Method 29 or 104 of 40 CFR Part 60, Appendix A;

iv. for PM10 - Method 201 and 201a of 40 CFR Part 51, Appendix M.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

d. The tests shall be conducted while this emissions unit is operating at its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Division of Air Pollution Control. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Division of Air Pollution Control. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the times and dates of the tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's air agency's refusal to accept the results of the emissions tests.

e. Personnel from the Ohio EPA District Office's air agency shall be permitted to witness the test, 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 unit and/or the performance of the control equipment. A comprehensive written report on the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Division of Air Pollution Control within 30 days following completion of the tests.

[OAC rule 3745-77-07(C)(1) and PTI #P0106978]

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

a. <u>Emission Limitations</u>:

9.1 lbs NOx/hr, 39.9 tons NOx/yr

<u>Applicable Compliance Method</u>:

Compliance with the lb/hr emissions limitations shall be demonstrated by emissions testing requirements in f)(1) above.

The ton/year limitation was established by multiplying the pounds per hour limitation by 8760 hours per year, and applying a conversion factor of 1 ton/2000

lbs. Therefore, provided compliance is shown with the hourly, compliance with the annual limitation shall be assumed.

[OAC rule 3745-77-07(C)(1) and PTI #P0106978]

b. Emission Limitations:

0.20 lb of PM10/hr, 0.88 ton PM10 /yr

Applicable Compliance Method:

Compliance with the lb/hr emissions limitations shall be demonstrated by emissions testing requirements in f)(1) above.

The ton/year limitation was established by multiplying the pounds per hour limitation by 8760 hours per year, and applying a conversion factor of 1 ton/2000 lbs. Therefore, provided compliance is shown with the hourly, compliance with the annual limitation shall be assumed.

[OAC rule 3745-77-07(C)(1) and PTI #P0106978]

c. Emission Limitations:

0.00006 lb Be/hr, 0.00026 ton Be/yr

Applicable Compliance Method:

Compliance with the lb/hr emissions limitations shall be demonstrated by emissions testing requirements in f)(1) above.

The ton/year limitation was established by multiplying the pounds per hour limitation by 8760 hours per year, and applying a conversion factor of 1 ton/2000 lbs. Therefore, provided compliance is shown with the hourly, compliance with the annual limitation shall be assumed.

[OAC rule 3745-77-07(C)(1) and PTI #P0106978]

d. Emission Limitation:

Visible PE shall not exceed 5% opacity, as a six-minute average from the stack serving this emissions unit.

Applicable Compliance Method:

If required, compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

[OAC rule 3745-77-07(C)(1) and PTI #P0106978]

g) Miscellaneous Requirements

(1) None.

11. P064, Alloy Induction Furnace #1

Operations, Property and/or Equipment Description:

Alloy Induction Furnace #1

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. 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 3745-17-11(B)	14.8 lbs particulate emissions (PE)/hr
b.	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
c.	40 CFR, Part 64 – Compliance Assurance Monitoring (CAM)	See b)(2)a., d)(1) through d)(7), and e)(1).
d.	40 CFR, Part 61, Subpart C (40 CFR 61.30-34) [In accordance with 40 CFR 61.30, this emissions unit is located at a beryllium processing facility and has the potential to emit beryllium.]	See B.2., B.3., and B.4. – Facility-Wide Terms and Conditions.

(2) Additional Terms and Conditions

a. In accordance with the Director's Final Findings and Orders dated 03/24/2008, the permittee has installed three (3) TRIBO.d^{2TM} continuous particulate emission monitors downstream of three (3) secondary cartridge collectors located in the old cast shop, and an alarm transmission system at the permittee's facility. The permittee shall hereafter operate and maintain such monitors. The purpose of the TRIBO.d^{2TM} continuous particulate emission monitors shall be to early detect dust collector leaks or malfunctions. Process operators will be alarmed quickly of the non-routine conditions, which allows for timely investigation and troubleshooting.

The first TRIBO.d^{2TM} monitor has been installed downstream of the east secondary cartridge collector (C-32-1-2) associated with Alloy Induction Furnace

#1 (emissions unit P064) and Alloy Induction Furnace #2 (emissions unit P065). The second TRIBO.d^{2TM} monitor has been installed downstream of the north secondary cartridge collector (C-32-2-2) associated with Alloy Induction Furnace #3 (emissions unit P066) and Alloy Induction Furnace #4 (emissions unit P067). The third TRIBO.d^{2TM} monitor has been installed downstream of the south secondary cartridge collector (C-32-4-3) associated with the Alloy Cast Shop Auxiliary Operations (emissions unit P011).

In addition to the local alarm at the graphic display recorder located in the old case shop, and an alarm signal has been installed that transmits a signal to the facility's Simplex centralized alarm monitoring system. The Simplex system provides audible alarm notification and text messaging to the central security control center, which is staffed 24 hours a day. The system has been set to generate a low-level alarm and a high-level alarm based on the emissions level relative to the baseline. The system (TRIBO.d^{2TM} monitor and the alarm transmission units) shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals.

The permittee has developed and shall maintain a written quality assurance (QA) plan to assess and document the continuing functioning and accuracy of the TRIBO.d^{2TM} monitor and the alarm transmission units. The permittee shall follow the recommendations in the U.S. EPA's document number EPA-454/R-98-015 (Fabric Filter Bag Leak Detection Guidance) in developing and maintaining the quality assurance plan for the TRIBO.d^{2TM} monitor.

Notwithstanding the reference to the Director's Final Findings and Orders dated 03/24/2008 contained in this permit term and condition, Materion may request and obtain a termination of the Director's Final Findings and Orders according to its terms.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall document all times the control devices serving this emissions unit were not employed when the emissions unit was in operation.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(2) 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. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. the total duration of any visible emission incident; and

c. any corrective actions taken to eliminate the visible emissions.

[OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

(3) The QA plan for the TRIBO.d^{2TM} continuous particulate emission monitoring system includes the following elements:

a. Initial and periodic adjustment of the continuous particulate emission monitoring system including how the alarm set-point will be established;

b. Operation of the continuous particulate emission monitoring system including quality assurance procedures;

c. How the continuous particulate emission monitoring system will be maintained including a routine maintenance schedule and spare parts inventory list; and

d. How the continuous particulate emission monitoring system output shall be recorded and stored.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(4) The initial adjustment of the system shall, at a minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points and the alarm delay time (if applicable).

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(5) Following initial adjustment, the owner or operator shall not adjust the averaging period, alarm set point, or alarm delay time without approval from the Ohio EPA NWDO, except as follows:

a. Once per quarter, the owner or operator may adjust the sensitivity of the continuous particulate emission monitoring system to account for seasonal effects including temperature and humidity according to the procedures identified in the site-specific QA plan.

b. If opacities greater than zero percent are observed over four consecutive 15-second observations during the daily opacity observations required and the alarm on the continuous particulate emission monitoring system does not sound, the owner or operator shall lower the alarm set point on the continuous particulate emission monitoring system to a point where the alarm would have sounded during the period when the opacity observations were made.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(6) The CAM plan for this emissions unit has been developed for particulate emissions. The CAM performance indicator for the baghouse controlling this emissions unit is the TRIBO.d^{2TM} continuous particulate emission monitoring system. When the TRIBO.d^{2TM} continuous particulate emission monitoring system alarm indicates operation outside the

indicator range, the permittee shall take corrective actions to restore operation of the emissions unit and/or its control equipment to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions, and shall comply with the reporting requirements specified in Section e) below. The emissions unit and control equipment shall be operated in accordance with the QA Plan and the approved CAM Plan or any approved revisions of these Plans. The baghouse shall not be configured to have bypass capability.

[OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

(7) If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance, the permittee shall promptly notify the appropriate Ohio EPA District Office or local air agency, and if necessary, submit a proposed modification to the Title V permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, re-establishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

[OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

e) Reporting Requirements

(1) The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

a. each period of time when the TRIBO.d^{2TM} continuous particulate emission monitoring system for either baghouse (C-32-1-1 or C-32-1-2) was outside of the acceptable range;

b. an identification of each incident of deviation described in e)(1)a. where a prompt investigation was not conducted;

c. an identification of each incident of deviation described in e)(1)a. where prompt corrective action was determined to be necessary and was not taken; and

d. an identification of each incident of deviation described in e)(1)a. where proper records were not maintained for the investigation and/or the corrective action.

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.

[OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

(2) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and

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

These reports shall be submitted to the appropriate Ohio EPA district office or local field office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. Emission Limitation:

14.8 lbs PE/hr

Applicable Compliance Method:

Compliance with the hourly allowable PE limitation may be determined by multiplying 98.2 lbs/hr (the uncontrolled mass rate of emissions from P064) by the baghouse control factor of (1.0-0.99).*

If required, the permittee shall demonstrate compliance with the hourly allowable PE limitation pursuant to OAC rule 3745-17-03(B)(10).

*The baghouse control efficiency is assumed to be 99%.

[OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance pursuant to the methods and procedures specified in OAC rule 3745-17-03(B)(1).

[OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

12. P076, Walking Reheat Furnace

Operations, Property and/or Equipment Description:

Walking Reheat Furnace

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI #03-17251, issued 07/03/2007)	Nitrogen oxides (NOx) shall not exceed 1.68 pounds/hour and 7.36 tons per year (TPY). Carbon monoxide (CO) shall not exceed 1.15 pounds/hour and 5.04 TPY. Volatile organic compounds (VOC) shall not exceed 0.075 pound/hour and 0.32 TPY. Particulate matter less than 10 microns (PM10) shall not exceed 0.026 pound/hour and 0.114 TPY Sulfur dioxide (SO2) shall not exceed 0.008 pound/hour and 0.035 tons per year TPY See b)(2)a. and b)(2)c.
b.	OAC rule 3745-18-06(E)	See b)(2)b.
c.	OAC rule 3745-17-11(B)	See b)(2)b.
d.	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

(2) Additional Terms and Conditions

a. Emissions from this emissions unit are attributed solely to natural gas combustion.

b. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).

c. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).

c) Operational Restrictions

(1) The permittee shall burn only natural gas in this emissions unit.

[OAC rule 3745-77-07(A)(1) and PTI #03-17251]

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 and quantity of fuel burned in this emissions unit.

[OAC rule 3745-77-07(C)(1) and PTI #03-17251]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[OAC rule 3745-77-07(C)(1) and PTI #03-17251]

f) Testing Requirements

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

a. <u>Emission Limitations:</u>

1.68 pounds NOx/hour and 7.36 TPY

<u>Applicable Compliance Method:</u>

Compliance with the hourly emission limitation shall be determined by multiplying the established emission factor of 0.12 pounds NO_x/mmBtu* and a maximum heat input of 13.968 mmBtu/hour. The annual limitation was established by multiplying the hourly emission rate by 8760 hrs/year and divided by 2000 lbs/ton. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

* The 0.12 lb NOx/mmBtu was determined to be BAT in PTI # 03-9105, issued on August 7, 1996, and this emission factor was used to establish the lb/hr limitation.

If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1 - 4, and 7 of 40 CFR Part 60, Appendix A.

[OAC rule 3745-77-07(C)(1) and PTI #03-17251]

b. Emission Limitations:

1.15 pounds CO/hour and 5.04 TPY

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined by multiplying an emission factor of 84 pounds CO/mm scf derived from AP-42, Table 1.4-1 (revised 7/98) and the maximum natural gas consumption rate of 13,700 cu. ft./hr. The annual limitation was established by multiplying the hourly emission rate by 8760 hrs/year and divided by 2000 lbs/ton. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1 - 4, and 10 of 40 CFR Part 60, Appendix A.

[OAC rule 3745-77-07(C)(1) and PTI #03-17251]

c. Emission Limitations:

0.075 pound VOC/hour and 0.32 TPY

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined by multiplying an emission factor of 5.5 pounds OC/mm scf derived from AP-42, Table 1.4-2 (revised 7/98) and the maximum natural gas consumption rate of 13,700 cu. ft./hr. The annual limitation was established by multiplying the hourly emission rate by 8760 hrs/year and divided by 2000 lbs/ton. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1 - 4, and 18, 25, or 25A, as appropriate, of 40 CFR Part 60, Appendix A.

[OAC rule 3745-77-07(C)(1) and PTI #03-17251]

d. Emission Limitations:

0.026 pound PM10/hour and 0.114 TPY

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined by multiplying an emission factor of 1.9 pounds PM-10/mm scf derived from AP-42, Table 1.4-2 (revised 7/98) and the maximum natural gas consumption rate of 13,700 cu. ft./hr. The annual limitation was established by multiplying the hourly emission rate by 8760 hrs/year and divided by 2000 lbs/ton. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

If required, the permittee shall demonstrate compliance by testing in accordance with Methods 201/201A and 202 of 40 CFR, Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

[OAC rule 3745-77-07(C)(1) and PTI #03-17251]

e. Emission Limitations:

0.008 pound SO2/hour and 0.035 TPY

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined by multiplying an emission factor of 0.6 pounds SO2/mm scf derived from AP-42, Table 1.4-2 (revised 7/98) and the maximum natural gas consumption rate of 13,700 cu. ft./hr. The annual limitation was established by multiplying the hourly emission rate by 8760 hrs/year and divided by 2000 lbs/ton. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1 - 4, and 6 of 40 CFR Part 60, Appendix A.

[OAC rule 3745-77-07(C)(1) and PTI #03-17251]

f. Emission Limitation:

Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance pursuant to the methods and procedures specified in OAC rule 3745-17-03(B)(1).

[OAC rule 3745-77-07(C)(1) and PTI #03-17251]

g) Miscellaneous Requirements

(1) None.

13. P079, Aqueous Strip Cleaner

Operations, Property and/or Equipment Description:

Aqueous Strip Cleaner

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI #P0117539, issued 09/18/2014)	Volatile organic compounds (VOC) shall not exceed 0.33 lb/hr and 1.45 tons per year (TPY) from solvent cleaning operations. See b)(2)a. and b)(2)b.

(2) Additional Terms and Conditions

a. The hourly VOC emission limitation represents the potential to emit for this emissions unit. Therefore, no additional monitoring, record keeping, or compliance method calculations are necessary to ensure compliance with this emission limitation.

b. Best Available Technology (BAT) control requirements for this emissions unit has been determined to be the use of a Venturi scrubber followed by a mist eliminator. The scrubber shall meet a minimum control efficiency of 99% for VOC emissions.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber, and the water flow rate while the emissions unit is in operation and employing VOC cleaning solvent. The monitoring devices and

any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

[OAC rule 3745-77-07(C)(1) and PTI #P0117539]

(2) The permittee shall collect and record the following information each day that VOC-based cleaning solvent is employed in the emissions unit:

a. the static pressure drop across the scrubber, in inches of water, on a once-per-shift basis;

b. the scrubber water flow rate, in gallons per minute (gpm), on a once-per-shift basis; and

c. the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

[OAC rule 3745-77-07(C)(1) and PTI #P0117539]

(3) Whenever the monitored values for the pressure drop, and water flow rate deviate from the value/ranges specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

[OAC rule 3745-77-07(C)(1) and PTI #P0117539]

(4) In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable value/ranges specified below, 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 description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the pressure drop and/or scrubber water flow rate immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

[OAC rule 3745-77-07(C)(1) and PTI #P0117539]

(5) The following represent acceptable operating parameters for the scrubber:

a. The pressure drop across the Venturi scrubber shall be maintained between the range of 0.5 and 2.0 inches of water, at all times while the emissions unit is in operation and employing VOC based cleaning solvent, or as established during the most recent performance test that demonstrated the emissions unit was in compliance.

b. The Venturi scrubber water flow rate shall be maintained at a value of not less than 10 gpm, at all times while the emission units are in operation and employing VOC based cleaning solvent, or as established during the most recent performance test that demonstrated the emission units were in compliance.

[OAC rule 3745-77-07(C)(1) and PTI #P0117539]

(6) These value/ranges are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the value/ranges based upon information obtained during future emission tests that demonstrate compliance with the allowable emission rates specified in the permit for this emissions unit. In addition, approved revisions to the value/ranges will not constitute a relaxation of the monitoring requirements requiring a modification of this permit but may be incorporated into the facility's Title V permit by means of a minor permit modification.

[OAC rule 3745-77-07(C)(1) and PTI #P0117539]

(7) The permittee shall collect and record the following information each month for each cleaning solvent employed in emissions unit P079:

a. the name and identification of each cleaning solvent employed;

b. the number of gallons of each cleaning solvent employed;

c. the volatile organic compound content of each cleaning solvent, as employed, in pounds per gallon;

d. the total controlled volatile organic compound emission rate for all coatings, in lbs per month, calculated using the overall control efficiency; and

e. the annual year-to-date volatile organic compound emissions from all cleaning solvent [sum of d)(7)d. for each month to date from January to December].

[OAC rule 3745-77-07(C)(1) and PTI #P0117539]

e) Reporting Requirements

(1) The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment (scrubber) during the operation of this emissions unit, while employing VOC based cleaning solvent:

a. each period of time when the pressure drop across the scrubber was outside of the acceptable range;

b. each period of time when the scrubber water flow rate deviated from the acceptable value;

c. an identification of each incident of deviation described in e)(1)a. and/or e)(1)b. where prompt corrective action, that would bring the pressure drop and/or water

flow rate into compliance with the acceptable range/value, was determined to be necessary and was not taken; and

d. an identification of each incident of deviation described in e)(1)a. and/or e)(1)b. where proper records were not maintained for the investigation and/or the corrective action.

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.

[OAC rule 3745-77-07(C)(1) and PTI #P0117539]

(2) The permittee shall also submit annual reports that specify the total VOC emissions from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

[OAC rule 3745-77-07(C)(1) and PTI #P0117539]

f) Testing Requirements

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

a. <u>Emission Limitations:</u>

0.33 lb VOC/hr and 1.45 ton VOC/yr from solvent cleaning operations

<u>Applicable Compliance Method:</u>

The hourly emission limitation represents the potential to emit* for this emissions unit. Therefore, no additional monitoring, record keeping, or compliance method calculations are necessary to ensure compliance with this emission limitation.

* The potential to emit for this emissions unit is based on the use of cleaning solvent cleaning (make-up solvent) with a maximum VOC content of 0.843 pounds per gallon and a maximum usage rate of 33 gallons per hour, and a control efficiency of 99 % for the scrubber.

Compliance with the annual emission limitation shall be demonstrated through the record keeping requirements specified in section d)(7).

[OAC rule 3745-77-07(C)(1) and PTI #P0117539]

g) Miscellaneous Requirements

(1) None.

14. P091, Roller Hearth Annealing Furnace

Operations, Property and/or Equipment Description:

Roller Hearth Annealing Furnace

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 operations(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. 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 3745-17-11(B)	See b)(2)a.
b.	OAC rule 3745-17-07(A)	See b)(2)b.
c.	OAC rule 3745-18-06(E)	58.6 lbs sulfur dioxide (SO2)/hr

(2) Additional Terms and Conditions

a. The uncontrolled mass rate of particulate emissions (UMRE) from this emissions unit is less than 10 lbs/hr. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. Also, Table I does not apply because the facility is located in Ottawa County.

b. This emissions unit is exempt from the visible emissions limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.

c) Operational Restrictions

(1) The permittee shall burn only natural gas in this emissions unit.

[OAC rule 3745-77-07(A)(1)]

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 and quantity of fuel burned in this emissions unit.

[OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. Emission Limitation:

58.6 lbs SO2/hr

Applicable Compliance Method:

This emissions unit is assumed to be in compliance with the SO2 limitation above since the amount of SO2 generated is negligible.

[OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

15. P093, Alloy Calciner

Operations, Property and/or Equipment Description:

Alloy Calciner

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI #03-00899, issued 07/28/1980)	Compliance with the terms and conditions of this permit.
b.	OAC rule 3745-17-11(B)	See b)(2)a.
c.	OAC rule 3745-17-07(A)	See b)(2)b.
d.	OAC rule 3745-18-06(E)	See b)(2)c.
e.	40 CFR, Part 61, Subpart C (40 CFR 61.30-34) [In accordance with 40 CFR 61.30, this emissions unit is located at a beryllium processing facility and has the potential to emit beryllium.]	See B.2., B.3., and B.4. – Facility-Wide Terms and Conditions.

(2) Additional Terms and Conditions

a. The uncontrolled mass rate of particulate emissions (UMRE) from this emissions unit is less than 10 lbs/hr. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. Also, Table I does not apply because the facility is located in Ottawa County.

b. This emissions unit is exempt from the visible emissions limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.

c. The maximum process weight rate for this emissions unit is less than 1000 lbs/hr. Therefore, pursuant to OAC rule 3745-18-06(C), this emissions unit is exempt from OAC rule 3745-18-06(E).

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

16. P107, Investment Vacuum Casting

Operations, Property and/or Equipment Description:

Vacuum Induced Investment Casting

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI #P0106910, issued 11/17/2010)	Particulate matter equal to or less than 10 microns in size (PM10) shall not exceed 0.13 lb/hr and 0.57 ton PM10/yr. Beryllium (Be) emissions shall not exceed 0.0013 lb/hr and 0.0057 ton/yr. Visible particulate emissions (PE) shall not exceed 0% opacity, as a six-minute average. See b)(2)a. and c)(1)
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	See b)(2)b.
c.	OAC rule 3745-31-05(A)(3)), as effective 12/01/06	See b)(2)c.
d.	OAC rule 3745-17-11(B)	See b)(2)d.
e.	OAC rule 3745-17-07(A)	See b)(2)d.
f.	40 CFR, Part 61, Subpart C (40 CFR 61.30-34) [In accordance with 40 CFR 61.30, this emissions unit is located at a beryllium processing facility and has the potential to emit beryllium.]	See B.2., B.3., and B.4. – Facility-Wide Terms and Conditions.

(2) Additional Terms and Conditions

a. This permit establishes the following federally enforceable emission limitations for the purpose of limiting potential to emit (PTE) to avoid Prevention of Significant Deterioration (PSD) requirements. The federally enforceable emission limitations are based on the operational restriction contained in c)(1) which require control equipment:

i. 0.13 lb PM10/hr and 0.57 ton PM10/yr;

ii. 0.0013 lb Be/hr and 0.0057 ton Be/yr; and

iii. Visible particulate emissions shall not exceed 0% opacity, as a six-minute average.

All emissions of particulate matter from the baghouse stack are PM_{10} and include Be.

b. The requirements of this rule are equivalent to the requirements established pursuant to OAC rule 3745-31-05(D); therefore, the permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit.

On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 Changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, the requirements of 3745-31-05(A)(3) as effective 12-1-06 will no longer apply.

It should be noted that the emission limitations and control requirements established pursuant to OAC rule 3745-31-05(D) will remain applicable after the above SIP revisions are approved by U.S. EPA.

c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3)(a), as effective December 1, 2006, do not apply to the PM_{10} emissions from this air contaminant source since the controlled potential to emit (PTE) is less than 10 tons per year taking into consideration federally enforceable requirements established under OAC rule 3745-31-05(D).

d. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D).

c) Operational Restrictions

(1) The following operational restriction has been included in this permit for the purpose of establishing federally enforceable requirements which limit PTE [see b)(2)a.]:

a. All PE from this emissions unit shall be vented to a primary baghouse (C-10-1-1) and secondary baghouse (C-10-1-4) capable of achieving a maximum outlet concentration of 0.005 grains/dscf of PM10.

[OAC rule 3745-77-07(A)(1) and PTI #P0106910]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log, as well as the date and time the daily check was performed. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. the total duration of any visible emission incident; and

c. any corrective actions taken to eliminate the visible emissions.

[OAC rule 3745-77-07(C)(1) and PTI # P0106910]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and

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

These reports shall be submitted to the appropriate Ohio EPA district office or local field office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[OAC rule 3745-77-07(C)(1) and PTI #P0106910]

f) Testing Requirements

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

a. Emission Limitation:
0.005 gr PM10/dscf

Applicable Compliance Method:
The 0.005 gr PM10/dscf emission limitation was established in accordance with the maximum outlet grain loading concentration for the baghouse. If required, the permittee shall demonstrate compliance with the gr PM10/dscf by testing in accordance with Methods 201/201A and 202 of 40 CFR, Part 51, Appendix M. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

[OAC rule 3745-77-07(C)(1) and PTI #P0106910]

b. Emission Limitations:
0.13 lb PM10/hr and 0.57 ton PM10/yr

Applicable Compliance Method:
The hourly limitation was established by multiplying the maximum baghouse outlet concentration of 0.005 gr/dscf, the maximum volumetric air flow rate (3,000 acfm) contributed from this emissions unit to the baghouse, and using the following conversion factors in order to convert to pounds per hour: 1 lb/7000 grains, 60 minutes/hr.

The annual limitation was established by multiplying the maximum baghouse outlet concentration of 0.005 gr/dscf, the maximum volumetric air flow rate (3,000 acfm) contributed from this emissions unit to the baghouse, and using the following conversion factors in order to convert to tons per year: 1 lb/7000 grains, 60 minutes/hour, 8760 hours/year and 1 ton/2000 lbs. Therefore, provided compliance is demonstrated with the 0.005 gr PM10/dscf limitation, compliance with the annual limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0106910]

c. Emission Limitations:
0.0013 lb Be/hr and 0.0057 ton Be/yr

Applicable Compliance Method:
Compliance with the hourly Be limitation may be determined by multiplying the maximum Be content of 1.0 %, by weight, by the controlled PM10 emission limitation of 0.005 gr/dscf, the baghouse's maximum volumetric air flow rate (3,000 acfm), 60 minutes/hour, and dividing by 7000 gr/lb. If required, the permittee shall demonstrate compliance with the hourly allowable Be limitation in accordance with Methods 1-4, and 29 or 104 of 40 CFR, Part 60, Appendix A.

The annual limitation was established by multiplying the hourly emission limitation by 8760 hrs/year, and then dividing by 2000 lbs/ton. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0106910]

d. Emission Limitations:

Visible PE shall not exceed 0% opacity, as a six-minute average from the stack serving this emissions unit.

Applicable Compliance Method:

If required, compliance with the visible PE limitation shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

[OAC rule 3745-77-07(C)(1) and PTI #P0106910]

g) Miscellaneous Requirements

(1) None.

17. P109, 52 H.P. portable vacuum unit

Operations, Property and/or Equipment Description:

52 H.P. propane-fired vacuum unit

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05 (A)(3) (PTI #03-16379, issued 05-31-2007)	<u>Engine emissions</u>: 0.097 pound nitrogen oxides (NOx)/hour and 0.42 ton NOx/year 0.013 pound carbon monoxide (CO)/hour and 0.057 ton CO/year 0.0035 pound volatile organic compounds (VOC)/hour and 0.015 ton VOC/year 0.01 pound sulfur dioxide (SO2)/hour and 0.044 ton SO2/year 0.0028 pound particulate matter less than 10 microns (PM10)/hour and 0.012 ton PM10/year Visible particulate emissions shall not exceed 10% opacity as a 6-minute average, except during start-up and shutdown See b)(2)a. <u>Vacuum unit emissions</u>: 0.02 gr PM10/dry standard cubic feet (dscf), and 0.83 ton PM10/year 0.0076 lb beryllium (Be)/hr and 0.033 ton

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Be/year Visible particulate emissions shall not exceed 0% opacity, as a 6-minute average. See b)(2)a.
b.	OAC rule 3745-17-11(B)	Engine emissions: See b)(2)b. Vacuum unit emissions: See b)(2)c.
c.	OAC rule 3745-17-07(A)	Engine emissions: See b)(2)b. Vacuum unit emissions: See b)(2)d.
d.	OAC rule 3745-18-06(G)	Engine emissions: See b)(2)e. Vacuum unit emissions: Not applicable.
e.	40 CFR, Part 61, Subpart C (40 CFR 61.30-34) [In accordance with 40 CFR 61.30, this emissions unit is located at a beryllium processing facility and the vacuum unit has the potential to emit beryllium.]	Engine emissions: Not applicable. Vacuum unit emissions: See B.2., B.3., and B.4. – Facility-Wide Terms and Conditions.

(2) Additional Terms and Conditions

a. Best available technology (BAT) control requirements for this emissions unit has been determined to be the use of a cartridge filter with a maximum outlet concentration of 0.02 gr PM10/dscf. All emissions of particulate matter are PM10.

b. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).

c. The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs/hr. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. Also, Table I does not apply because the facility is located in Ottawa County.

d. This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07 (A) pursuant to OAC rule 3745-17-07(A)(3)(h) because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.

e. This emissions unit is exempt from the requirements of OAC rule 3745-18-06 pursuant to OAC rule 3745-18-06 (B).

c) Operational Restrictions

(1) The permittee shall combust only propane in this emissions unit.

[OAC rule 3745-77-07(A)(1) and PTI #03-16379]

d) Monitoring and/or Recordkeeping Requirements

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

[OAC rule 3745-77-07(C)(1) and PTI #03-16379]

(2) 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 egress point serving the vacuum unit for this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

c. any corrective actions taken to eliminate the visible emissions.

[OAC rule 3745-77-07(C)(1) and PTI #03-16379]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than propane was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[OAC rule 3745-77-07(C)(1) and PTI #03-16379]

(2) The permittee shall submit semiannual written reports that:

a. identify all days during which any visible particulate emissions were observed from the egress point serving the vacuum unit for this emissions unit; and

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

These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

[OAC rule 3745-77-07(C)(1) and PTI #03-16379]

f) Testing Requirements

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

a. Emission Limitations:

0.097 pounds NOx/hour and 0.42 ton NOx/year (engine emissions)

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined by multiplying an emission factor of 14 lbs NOx/1000 gal derived from AP-42, Table 1.5-1 (revised 10/96) and a maximum hourly fuel input of 6.96 gal/hour. The annual limitation was established by multiplying the hourly emission rate by 8760 hrs/year and divided by 2000 lbs/ton. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1 - 4, and 7 of 40 CFR Part 60, Appendix A.

[OAC rule 3745-77-07(C)(1) and PTI #03-16379]

b. Emission Limitations:

0.013 pound CO/hour and 0.057 tons CO/year (engine emissions)

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined by multiplying an emission factor of 1.9 lb CO/1000 gal derived from AP-42, Table 1.5-1 (revised 10/96) and a maximum hourly fuel input of 6.96 gal/hour. The annual limitation was established by multiplying the hourly emission rate by 8760 hrs/year and divided by 2000 lbs/ton. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1 - 4, and 10 of 40 CFR Part 60, Appendix A.

[OAC rule 3745-77-07(C)(1) and PTI #03-16379]

c. Emission Limitations:

0.0035 pounds VOC/hour and 0.015 ton VOC/year (engine emissions)

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined by multiplying an emission factor of 0.5 lb VOC/1000 gal derived from AP-42, Table 1.5-1 (revised 10/96) and a maximum hourly fuel input of 6.96 gal/hour. The annual limitation was established by multiplying the hourly emission rate by 8760 hrs/year and divided by 2000 lbs/ton. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1 - 4, and 18, 25 and/or 25A, as applicable, of 40 CFR Part 60, Appendix A.

[OAC rule 3745-77-07(C)(1) and PTI #03-16379]

d. Emission Limitations:

0.0028 pound PM10/hour and 0.012 ton PM10/year (engine emissions)

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined by multiplying an emission factor of 0.4 lb/1000 gal derived from AP-42, Table 1.5-1 (revised 10/96) and a maximum hourly fuel input of 6.96 gal/hour. The annual limitation was established by multiplying the hourly emission rate by 8760 hrs/year and divided by 2000 lbs/ton. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

If required, the permittee shall demonstrate compliance by testing in accordance with Methods 201/201A and 202 of 40 CFR, Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

[OAC rule 3745-77-07(C)(1) and PTI #03-16379]

e. Emission Limitations:

0.01 pound SO_2/hour and 0.044 ton SO_2/year (engine emissions)

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined by multiplying an emission factor of 1.5 lb/1000 gal derived from AP-42, Table 1.5-1 (revised 10/96) and a maximum hourly fuel input of 6.96 gal/hour. The annual limitation was established by multiplying the hourly emission rate by 8760 hrs/year and

divided by 2000 lbs/ton. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1 - 4, and 6 of 40 CFR Part 60, Appendix A.

[OAC rule 3745-77-07(C)(1) and PTI #03-16379]

f. Emission Limitations:

0.02 gr PM10 /dscf, 0.83 ton PM10 /year (vacuum emissions)

Applicable Compliance Method:

The 0.02 gr PM10/dscf limitation was established in accordance with the manufacturer's guaranteed maximum outlet concentration for the cartridge filter. The annual limitation was established by multiplying the hourly emission rate of 0.19 lb/hr by 8760 hrs/year and divided by 2000 lbs/ton. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

If required, the permittee shall demonstrate compliance by testing in accordance with Methods 201/201A and 202 of 40 CFR, Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

[OAC rule 3745-77-07(C)(1) and PTI #03-16379]

g. Emission Limitations:

0.0076 lb Be/hr, 0.033 ton Be/year (vacuum emissions)

Applicable Compliance Method:

Compliance with the hourly Be limitation shall be determined by multiplying the maximum Be content of 4.0 % by the controlled PM10 emission limitation of 0.02 gr/dscf, the cartridge filter's maximum volumetric air flow rate (1,110 acfm), 60 minutes/hour, and dividing by 7000 gr/lb. The annual limitation was established by multiplying the hourly emission rate by 8760 hrs/year and divided by 2000 lbs/ton. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

If required, the permittee shall demonstrate compliance with the hourly allowable Be limitation pursuant to Methods 1-4, and 29 or 104 of 40 CFR, Part 60, Appendix A.

[OAC rule 3745-77-07(C)(1) and PTI #03-16379]

h. Emission Limitation:

Visible PE shall not exceed 10% opacity, as a 6-minute average, except during start-up and shutdown (engine emissions)

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance in accordance with Method 9 of 40 CFR Part 60, Appendix A.

[OAC rule 3745-77-07(C)(1) and PTI #03-16379]

i. Emission Limitation:

Visible particulate emissions shall not exceed 0% opacity, as a 6-minute average (vacuum emissions)

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance in accordance with Method 9 of 40 CFR Part 60, Appendix A.

[OAC rule 3745-77-07(C)(1) and PTI #03-16379]

g) Miscellaneous Requirements

(1) None.

18. P110, 102 H.P portable vacuum unit

Operations, Property and/or Equipment Description:

102 H.P. diesel-fired vacuum unit

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05 (A)(3) (PTI #03-16379, issued 05-31-2007)	<u>Engine emissions</u>: 6.22 pounds nitrogen oxides (NOx)/hour 1.34 pounds carbon monoxide (CO)/hour 0.49 pound volatile organic compounds (VOC)/hour 0.41 pound sulfur dioxide (SO2)/hour 0.44 pound particulate matter less than 10 microns (PM10)/hour Visible particulate emissions shall not exceed 10% opacity as a 6-minute average, except during start-up and shutdown See b)(2)a. and b)(2)b. <u>Vacuum unit emissions</u>: 0.02 gr PM10/dry standard cubic feet (dscf) 0.011 lb beryllium(Be)/hr Visible PE shall not exceed 0% opacity, as a 6-minute average.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		See b)(2)b. and b)(2)c.
b.	OAC rule 3745-31-05(D)	Engine emissions: 0.13 tons CO/rolling 12-month period 0.62 ton NOx/rolling 12-month period 0.05 ton VOC/rolling 12-month period 0.04 ton SO2/rolling 12-month period 0.04 ton PM10/rolling 12-month period See b)(2)d. Vacuum unit emissions: 0.03 ton PM10/rolling 12-month period 0.0011 ton Be/rolling 12-month period See b)(2)d.
c.	OAC rule 3745-17-11(B)	Engine emissions: See b)(2)e. Vacuum unit emissions: See b)(2)f.
d.	OAC rule 3745-17-07(A)	Engine emissions: See b)(2)e. Vacuum unit emissions: See b)(2)g.
e.	OAC rule 3745-18-06(G)	Engine emissions: See b)(2)h. Vacuum unit emissions: Not applicable.
f.	40 CFR, Part 61, Subpart C (40 CFR 61.30-34) [In accordance with 40 CFR 61.30, this emissions unit is located at a beryllium processing facility and the vacuum unit has the potential to emit beryllium.]	Engine emissions: Not applicable. Vacuum unit emissions: See B.2., B.3., and B.4. – Facility-Wide Terms and Conditions.

(2) Additional Terms and Conditions

a. The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).

b. All emissions of particulate matter are PM10.

c. Best available technology (BAT) control requirements for this emissions unit has been determined to be the use of a cartridge filter with a maximum outlet concentration of 0.02 gr PM10/dscf.

d. The emissions of CO and NOx from this emissions unit shall not exceed 0.13 ton CO per rolling 12-month period and 0.62 ton NOx per rolling 12-month period. The emission limitations are based on an annual hours of operation restriction [See c)(2)].

The 0.13 ton CO per rolling 12-month period and the 0.62 ton NOx per rolling 12-month period are federally enforceable limitations established for purposes of limiting potential to emit to avoid Prevention of Significant Deterioration (PSD) applicability.

The annual hours of operation restriction also effectively restricts emissions of PM10, SO2, VOC, and Be.

e. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).

f. The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs/hr. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. Also, Table I does not apply because the facility is located in Ottawa County.

g. This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07 (A) pursuant to OAC rule 3745-17-07(A)(3)(h) because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.

h. This emissions unit is exempt from the requirements of OAC rule 3745-18-06 pursuant to OAC rule 3745-18-06 (B).

c) Operational Restrictions

(1) The permittee shall combust only fuel oil number 2 in this emissions unit. The oil combusted in this emissions unit shall only be fuel oil number 2, as defined by the American Society for Testing and Materials in ASTM D396-78, 89, 90, 92, 96, or 98, "Standard Specification for Fuel Oils". The sulfur content of the distillate oil shall contain no more than 0.5 weight percent sulfur.

[OAC rule 3745-77-07(A)(1) and PTI #03-16379]

(2) The maximum annual hours of operation for emissions unit P110 shall not exceed 200 hours per year, based upon a rolling 12-month summation of the operating hours.

[OAC rule 3745-77-07(A)(1) and PTI #03-16379]

d) Monitoring and/or Recordkeeping Requirements

(1) For each day during which the permittee burns a fuel other than fuel oil number 2, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

[OAC rule 3745-77-07(C)(1) and PTI #03-16379]

(2) The permittee shall maintain monthly records of the following information for this emissions unit:

a. the hours of operation;

b. the 12-month summation of the hours of operation;

c. the calculated monthly emissions rate for CO using the following equation:

CO emissions in tons = (hours of operation) x (potential hourly CO emissions) x (1 ton/2000 lbs) = [d)(2)a.] x [1.34 lbs CO/hr] x [1 ton/2000 lbs];

d. the calculated monthly emissions rate for NOx using the following equation:

NOx emissions in tons = (hours of operation) x (potential hourly NOx emissions) x (1 ton/2000 lbs) = [d)(2)a.] x [6.22 lbs NOx/hr] x [1 ton/2000 lbs];

e. the rolling, 12-month summation of the emission rate for CO, in tons; and

f. the rolling, 12-month summation of the emission rate for NOx, in tons.

[OAC rule 3745-77-07(C)(1) and PTI #03-16379]

(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 egress point serving the vacuum unit for this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

c. any corrective actions taken to eliminate the visible emissions.

[OAC rule 3745-77-07(C)(1) and PTI #03-16379]

(4) The permittee shall use records of fuel supplier certification to demonstrate compliance with the operational restriction in section b)(1). Records of fuel supplier certification shall include the following information:

a. The name of the oil supplier; and

b. A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in b)(1) above.

[OAC rule 3745-77-07(C)(1) and PTI #03-16379]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports, in accordance with the Standard Terms and Conditions of this permit, which identify any exceedances of the sulfur content fuel restriction specified in Section c)(1).

[OAC rule 3745-77-07(C)(1) and PTI #03-16379]

(2) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than fuel oil number 2 was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[OAC rule 3745-77-07(C)(1) and PTI #03-16379]

(3) The permittee shall submit deviation (excursion) reports which identify all exceedances of the following:

a. the rolling 12-month period limitation on hours of operation;

b. the rolling 12-month emission limitation for CO; and

c. the rolling 12-month emission limitation for NOx.

These reports shall be submitted in accordance with the reporting requirements specified in Standard Terms and Conditions of this permit.

[OAC rule 3745-77-07(C)(1) and PTI #03-16379]

(4) The permittee shall submit semiannual written reports that:

a. identify all days during which any visible particulate emissions were observed from the egress point serving the vacuum unit for this emissions unit; and

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

These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

[OAC rule 3745-77-07(C)(1) and PTI #03-16379]

f) Testing Requirements

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

a. Emission Limitations:

6.22 pounds NOx/hour and 0.62 ton NOx/rolling 12-month period (engine emissions)

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined by multiplying an emission factor of 4.41 pounds NO_x/mmBtu derived from AP-42, Table 3.3-1 (revised 10/96) and a maximum heat input of 1.41 mmBtu/hour. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1 - 4, and 7 of 40 CFR Part 60, Appendix A.

Compliance with the annual emission limitation shall be determined by the monitoring and record keeping in section d)(2)f.

[OAC rule 3745-77-07(C)(1) and PTI #03-16379]

b. Emission Limitations:

1.34 pounds CO/hour and 0.13 tons CO/rolling 12-month period (engine emissions)

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined by multiplying an emission factor of 0.95 pound CO/mmBtu derived from AP-42, Table 3.3-1 (revised 10/96) and a maximum heat input of 1.41 mmBtu/hour. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1 - 4, and 10 of 40 CFR Part 60, Appendix A.

Compliance with the annual emission limitation shall be determined by the monitoring and record keeping in section d)(2)e.

[OAC rule 3745-77-07(C)(1) and PTI #03-16379]

c. Emission Limitations:

0.49 pounds VOC/hour and 0.05 ton VOC/rolling 12-month period (engine emissions)

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined by multiplying an emission factor of 0.35 pound VOC/mmBtu derived from AP-42, Table 3.3-1

(revised 10/96) and a maximum heat input of 1.41 mmBtu/hour. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1 - 4, and 18, 25 and/or 25A, as applicable, of 40 CFR Part 60, Appendix A.

The annual emission limitation was established by multiplying the hourly limitation by the maximum hours of operation restriction of 200 hours/rolling 12-month period, and then dividing by 2000 pounds/ton. Therefore provided compliance is shown with the hourly emission limitation and the annual hours of operation restriction, compliance with the annual limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #03-16379]

d. Emission Limitations:

0.44 pound PM10/hour and 0.04 ton PM10/rolling 12-month period (engine emissions)

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined by multiplying an emission factor of 0.31 pound PM10/mmBtu derived from AP-42, Table 3.3-1 (revised 10/96) and a maximum heat input of 1.41 mmBtu/hour. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 201/201A and 202 of 40 CFR, Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

The annual emission limitation was established by multiplying the hourly limitation by the maximum hours of operation restriction of 200 hours/rolling 12-month period, and then dividing by 2000 pounds/ton. Therefore provided compliance is shown with the hourly emission limitation and the annual hours of operation restriction, compliance with the annual limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #03-16379]

e. Emission Limitations:

0.41 pound SO2/hour and 0.04 ton SO2/rolling 12-month period (engine emissions)

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined by multiplying an emission factor of 0.29 pound SO2/mmBtu derived from AP-42, Table 3.3-1 (revised 10/96) and a maximum heat input of 1.41 mmBtu/hour. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1 - 4, and 6 of 40 CFR Part 60, Appendix A.

The annual emission limitation was established by multiplying the hourly limitation by the maximum hours of operation restriction of 200 hours/rolling 12-

month period, and then dividing by 2000 pounds/ton. Therefore provided compliance is shown with the hourly emission limitation and the annual hours of operation restriction, compliance with the annual limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #03-16379]

f. Emission Limitations:

0.02 gr PM10 /dscf, 0.03 ton PM10 /rolling 12-month period (vacuum emissions)

Applicable Compliance Method:

The 0.02 gr PM10/dscf limitation was established in accordance with the manufacturer's guaranteed maximum outlet concentration for the cartridge filter. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 201/201A and 202 of 40 CFR, Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

The annual emission limitation was established by multiplying the maximum cartridge filter outlet concentration of 0.02 gr/dscf, the cartridge filter's maximum volumetric air flow rate (1,600 acfm), 60 minutes/hour, lb/7000 gr, a maximum hours of operation restriction of 200 hours/rolling 12-month period, and dividing by 2000 lbs/ton. Therefore provided compliance is shown with the maximum outlet concentration and the annual hours of operation restriction, compliance with the annual limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #03-16379]

g. Emission Limitations:

0.011 lb Be/hr, 0.0011 ton Be/rolling 12-month period (vacuum emissions)

Applicable Compliance Method:

Compliance with the hourly Be limitation shall be determined by multiplying the maximum Be content of 4.0 % by the controlled PM10 emission limitation of 0.02 gr/dscf, the cartridge filter's maximum volumetric air flow rate (1,600 acfm), 60 minutes/hour, and dividing by 7000 gr/lb. If required, the permittee shall demonstrate compliance with the hourly allowable Be limitation pursuant to Methods 1-4, and 29 or 104 of 40 CFR, Part 60, Appendix A.

The annual emission limitation was established by multiplying the hourly limitation by the maximum hours of operation restriction of 200 hours/rolling 12-month period, and then dividing by 2000 pounds/ton. Therefore provided compliance is shown with the hourly emission limitation and the annual hours of operation restriction, compliance with the annual limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #03-16379]

h. Emission Limitation:

Visible PE shall not exceed 10% opacity, as a 6-minute average, except during start-up and shutdown (engine emissions).

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance in accordance with Method 9 of 40 CFR Part 60, Appendix A.

[OAC rule 3745-77-07(C)(1) and PTI #03-16379]

i. Emission Limitation:

Visible PE shall not exceed 0% opacity, as a 6-minute average (vacuum emissions).

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance in accordance with Method 9 of 40 CFR Part 60, Appendix A.

[OAC rule 3745-77-07(C)(1) and PTI #03-16379]

g) Miscellaneous Requirements

(1) None.

19. P111, South Beryllium R&D Lab

Operations, Property and/or Equipment Description:

South Beryllium Research and Development Laboratory

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI #P0106911, issued 11/17/2010)	Particulate matter equal to or less than 10 microns in size (PM10) shall not exceed 0.47 lb/hr and 2.06 tons/year. Beryllium (Be) emissions shall not exceed 0.0047 lb/hr and 0.021 ton/yr. Visible particulate emissions (PE) shall not exceed 0% opacity, as a six-minute average. See b)(2)a. and c)(1)
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	See b)(2)b.
c.	OAC rule 3745-31-05(A)(3), as effective 12/01/06	See b)(2)c.
d.	OAC rule 3745-17-11(B)	See b)(2)d.
e.	OAC rule 3745-17-07(A)	See b)(2)d.
f.	40 CFR, Part 64 – Compliance Assurance Monitoring (CAM)	See d)(1) through d)(3), and e)(1).
g.	40 CFR, Part 61, Subpart C (40 CFR 61.30-34) [In accordance with 40 CFR 61.30, this emissions unit is located at a beryllium processing facility and has the potential to emit beryllium.]	See B.2., B.3., and B.4. – Facility-Wide Terms and Conditions.

(2) Additional Terms and Conditions

a. This permit establishes the following federally enforceable emission limitations for the purpose of limiting potential to emit (PTE) to avoid Prevention of Significant Deterioration (PSD) requirements. The federally enforceable emission limitations are based on the operational restriction contained in c)(1) which require control equipment:

i. 0.47 lb PM10/hr and 2.06 tons PM10/year;

ii. 0.0047 lb Be/hr and 0.021 ton Be/yr; and

iii. Visible particulate emissions shall not exceed 0% opacity, as a six-minute average.

All emissions of particulate matter from the baghouse stack are PM10 and include Be.

b. The requirements of this rule are equivalent to the requirements established pursuant to OAC rule 3745-31-05(D); therefore, the permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit.

On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 Changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, the requirements of 3745-31-05(A)(3) as effective 12-1-06 will no longer apply.

It should be noted that the emission limitations and control requirements established pursuant to OAC rule 3745-31-05(D) will remain applicable after the above SIP revisions are approved by U.S. EPA.

c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3)(a), as effective December 1, 2006, do not apply to the PM_{10} emissions from this air contaminant source since the controlled potential to emit (PTE) is less than 10 tons per year taking into consideration federally enforceable requirements established under OAC rule 3745-31-05(D).

d. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D).

c) Operational Restrictions

(1) The following operational restriction has been included in this permit for the purpose of establishing federally enforceable requirements which limit PTE [see b)(2)a.]:

a. All PE from this emissions unit shall be vented to a primary baghouse (C-10-1-1) and a secondary baghouse (C-10-1-4) capable of achieving a maximum outlet concentration of 0.005 grains/dscf of PM10.

[OAC rule 3745-77-07(C)(1) and PTI #P0106911]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log, as well as the date and time the daily check was performed. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. the total duration of any visible emission incident; and

c. any corrective actions taken to eliminate the visible emissions.

[OAC rule 3745-77-07(C)(1), PTI #P0106911, and 40 CFR Part 64]

(2) The CAM plan for this emissions unit has been developed for particulate emissions. The CAM performance indicator for the baghouse controlling this emissions unit is daily visible emissions checks. When the daily visible emissions checks show operation outside the normal or usual manner of operation, the permittee shall take corrective actions to restore operation of the emissions unit and/or its control equipment to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions, and shall comply with the reporting requirements specified in Section e) below. The emissions unit and control equipment shall be operated in accordance with the approved CAM Plan or any approved revision of the Plan. The baghouse shall not be configured to have bypass capability.

[OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

(3) If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance, the permittee shall promptly notify the appropriate Ohio EPA District Office or local air agency, and if necessary, submit a proposed modification to the Title V permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, re-establishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

[OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

e) Reporting Requirements

The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and

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

These reports shall be submitted to the appropriate Ohio EPA district office or local field office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[OAC rule 3745-77-07(C)(1), PTI #P0106911, and 40 CFR Part 64]

f) Testing Requirements

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

a. Emission Limitations:
0.005 gr PM10/dscf,

Applicable Compliance Method:
The 0.005 gr PM10/dscf emission limitation was established in accordance with the maximum outlet grain loading concentration for the baghouse. If required, the permittee shall demonstrate compliance with the gr PM10/dscf by testing in accordance with Methods 201/201A and 202 of 40 CFR, Part 51, Appendix M. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

[OAC rule 3745-77-07(C)(1) and PTI #P0106911]

b. Emission Limitations:
0.47 lb PM10/hr and 2.06 tons PM10 /yr

Applicable Compliance Method:
The hourly limitation was established by multiplying the maximum baghouse outlet concentration of 0.005 gr/dscf,the maximum volumetric air flow rate (11,000 acfm) contributed from this emissions unit to the baghouse, and using the following conversion factors in order to convert to pounds per hour: 1 lb/7000 grains, 60 minutes/hour.

The annual limitation was established by multiplying the maximum baghouse outlet concentration of 0.005 gr/dscf, the maximum volumetric air flow rate (11,000 acfm) contributed from this emissions unit to the baghouse, and using the following conversion factors in order to convert to tons per year: 1 lb/7000

grains, 60 minutes/hour, 8760 hours/year and 1 ton/2000 lbs. Therefore, provided compliance is demonstrated with the 0.005 gr PM10/dscf limitation, compliance with the annual limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0106911]

c. Emission Limitations:
0.0047 lb Be/hr and 0.021 ton Be/yr

Applicable Compliance Method:
Compliance with the hourly Be limitation may be determined by multiplying the maximum Be content of 1.0 %, by weight, by the controlled PM10 emission limitation of 0.005 gr/dscf, the baghouse's maximum volumetric air flow rate (11,000 acfm), 60 minutes/hour, and dividing by 7000 gr/lb. If required, the permittee shall demonstrate compliance with the hourly allowable Be limitation in accordance with Methods 1-4, and 29 or 104 of 40 CFR, Part 60, Appendix A.

The annual limitation was established by multiplying the hourly emission limitation by 8760 hrs/year, and then dividing by 2000 lbs/ton. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0106911]

d. Emission Limitations:

Visible PE shall not exceed 0% opacity, as a six-minute average from the stack serving this emissions unit.

Applicable Compliance Method:

Compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

[OAC rule 3745-77-07(C)(1) and PTI #P0106911]

g) Miscellaneous Requirements

(1) None.

20. P112, Plate Aging Furnace

Operations, Property and/or Equipment Description:

Bulk Products Plate Aging Furnace

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI #P0106912, issued 11/17/2010)	Particulate matter equal to or less than 10 microns in size (PM10) shall not exceed 0.051 lb PM10/hr and 0.22 ton PM10/year. Beryllium (Be) emissions shall not exceed 0.003 lb/hr and 0.013 ton/yr. Visible particulate emissions (PE) shall not exceed 0% opacity, as a six-minute average. See b)(2)a. and c)(1)
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	See b)(2)b.
c.	OAC rule 3745-31-05(A)(3) as effective 12/01/06	See b)(2)c.
d.	OAC rule 3745-17-11(B)	See b)(2)d.
e.	OAC rule 3745-17-07(A)	See b)(2)d.
f.	40 CFR, Part 61, Subpart C (40 CFR 61.30-34) [In accordance with 40 CFR 61.30, this emissions unit is located at a beryllium processing facility and has the potential to emit beryllium.]	See B.2., B.3., and B.4. – Facility-Wide Terms and Conditions.

(2) Additional Terms and Conditions

a. This permit establishes the following federally enforceable emission limitations for the purpose of limiting potential to emit (PTE) to avoid Prevention of Significant Deterioration (PSD) requirements. The federally enforceable emission limitations are based on the operational restriction contained in c)(1) which require control equipment:

i. 0.051lb PM10/hr and 0.22 ton PM10/year

ii. 0.003 lb Be/hr and 0.013 ton Be/yr; and

iii. Visible particulate emissions shall not exceed 0% opacity, as a six-minute average.

All emissions of particulate matter from the baghouse stack are PM10 and include Be.

b. The requirements of this rule are equivalent to the requirements established pursuant to OAC rule 3745-31-05(D); therefore, the permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit.

On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 Changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, the requirements of 3745-31-05(A)(3) as effective 12-1-06 will no longer apply.

It should be noted that the emission limitations and control requirements established pursuant to OAC rule 3745-31-05(D) will remain applicable after the above SIP revisions are approved by U.S. EPA.

c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3)(a), as effective December 1, 2006, do not apply to the PM_{10} emissions from this air contaminant source since the controlled potential to emit (PTE) is less than 10 tons per year taking into consideration federally enforceable requirements established under OAC rule 3745-31-05(D).

d. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D).

c) Operational Restrictions

(1) The following operational restriction has been included in this permit for the purpose of establishing federally enforceable requirements which limit PTE [see b)(2)a.]:

a. All PE from this emissions unit shall be vented to a baghouse (C-2-1-1) capable of achieving a maximum outlet concentration of 0.004 grains/dscf of PM10 and a 5% maximum Be content in the particulates.

[OAC rule 3745-77-07(C)(1) and PTI #P0106912]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log, as well as the date and time the daily check was performed. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. the total duration of any visible emission incident; and

c. any corrective actions taken to eliminate the visible emissions.

[OAC rule 3745-77-07(C)(1) and PTI #P0106912]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and

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

These reports shall be submitted to the appropriate Ohio EPA district office or local field office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[OAC rule 3745-77-07(C)(1) and PTI #P0106912]

f) Testing Requirements

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

a. Emission Limitations:
0.004 gr PM10/dscf

Applicable Compliance Method:
The 0.004 gr PM10/dscf emission limitation was established in accordance with the maximum outlet grain loading concentration for the cartridge filter. If required, the permittee shall demonstrate compliance with the gr PM10/dscf by testing in accordance with Methods 201/201A and 202 of 40 CFR, Part 51, Appendix M. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

[OAC rule 3745-77-07(C)(1) and PTI #P0106912]

b. Emission Limitations:
0.051 lb PM10/hrand 0.22 ton PM10 /yr

Applicable Compliance Method:
The hourly limitation was established by multiplying the maximum cartridge filter outlet concentration of 0.004 gr/dscf, the maximum volumetric air flow rate (1,500 acfm) contributed from this emissions unit to the cartridge filter, and using the following conversion factors in order to convert to pounds per hour 1 lb/7000 grains, 60 minutes/hour.

The annual limitation was established by multiplying the maximum cartridge filter outlet concentration of 0.004 gr/dscf, the maximum volumetric air flow rate (1,500 acfm) contributed from this emissions unit to the cartridge filter, and using the following conversion factors in order to convert to tons per year: 1 lb/7000 grains, 60 minutes/hour, 8760 hours/year and 1 ton/2000 lbs. Therefore, provided compliance is demonstrated with the 0.004 gr PM10/dscf limitation, compliance with the hourly and annual limitations shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0106912]

c. Emission Limitations:
0.003 lb Be/hr and 0.013 ton Be/yr

Applicable Compliance Method:
Compliance with the hourly Be limitation may be determined by multiplying the maximum Be content of 5 %, by weight, by the controlled PM10 emission limitation of 0.004 gr/dscf, the cartridge filter's maximum volumetric air flow rate (1,500 acfm), 60 minutes/hour, and dividing by 7000 gr/lb. If required, the permittee shall demonstrate compliance with the hourly allowable Be limitation in accordance with Methods 1-4, and 29 or 104 of 40 CFR, Part 60, Appendix A.

The annual limitation was established by multiplying the hourly emission limitation by 8760 hrs/year, and then dividing by 2000 lbs/ton. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0106912]

d. Emission Limitations:
Visible PE shall not exceed 0% opacity, as a six-minute average from the stack serving this emissions unit.

Applicable Compliance Method:
Compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

[OAC rule 3745-77-07(C)(1) and PTI #P0106912]

g) Miscellaneous Requirements

(1) None.

21. P123, Beryllium Parts Surface Treatment R & D Laboratory

Operations, Property and/or Equipment Description:

Beryllium Parts Surface Treatment R & D Laboratory

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) d)(4) and g)(1).

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI #P0106908, issued 11/29/2010)	Particulate matter equal to or less than 10 microns in size (PM10) shall not exceed 0.046 lb/hr and 0.20 ton/yr. Beryllium (Be) emissions shall not exceed 0.00000017 lb/hr and 0.00000075 ton/yr. Visible particulate emissions (PE) shall not exceed 5% opacity, as a six-minute average. 9.9 tons volatile organic compounds (VOC) per rolling, 365-day period See b)(2)a., b)(2)b., and c)(1)
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	See b)(2)c.
c	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 12/01/06	See b)(2)d.
e.	OAC rule 3745-17-11(B)	See b)(2)e.
f.	OAC rule 3745-17-11(C)	See b)(2)f.
g.	OAC rule 3745-17-07(A)	See b)(2)g.
h.	OAC rule 3745-21-09(U)(2)(e)(iii)	See b)(2)h. and b)(2)l.
i.	OAC rule 3745-21-09(O)(6)(a)	Exempt, see b)(2)i.
j.	40 CFR 61.32(b) [In accordance with 40 CFR 61.30, this emissions unit is located at a	See term 2 of section B. – FACILITY-WIDE TERMS AND CONDITIONS.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	beryllium processing facility and has the potential to emit beryllium.]	
k.	40 CFR 63.340(d)	Exempt, see b)(2)j.
l.	40 CFR 63.11505(d)(2)	Exempt, see b)(2)k. and b)(2)m.
m.	ORC 3704.03(F) OAC rule 3745-114-01	See d)(4) and g)(1)

(2) Additional Terms and Conditions

a. This permit establishes a federally enforceable limitation of 9.9 ton of VOC per rolling, 365-day period for the purposes of establishing the potential to emit (PTE).

This permit also establishes the following federally enforceable emission limitations for the purpose of limiting potential to emit (PTE) to avoid Prevention of Significant Deterioration (PSD) requirements. The federally enforceable emission limitations are based on the operational restriction contained in c)(1) which requires control equipment:

i. 0.046 lb PM10/hr and 0.20 ton PM10/yr;

ii. 0.00000017 lb Be/hr and 0.00000075 ton Be/yr; and

iii. Visible particulate emissions (PE) shall not exceed 5% opacity, as a six-minute average.

All emissions of particulate matter from the wet scrubber stack are PM10 and include Be.

b. The emissions of VOC from this emissions unit shall not exceed 9.9 tons per year, based upon a rolling, 365-day summation of the daily emissions.

c. The requirements of this rule are equivalent to the requirements established pursuant to OAC rule 3745-31-05(D); therefore, the permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit.

On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 Changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, the requirements of 3745-31-05(A)(3) as effective 12-1-06 will no longer apply.

It should be noted that the emission limitations and control requirements established pursuant to OAC rule 3745-31-05(D) will remain applicable after the above SIP revisions are approved by U.S. EPA.

d. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3)(a), as effective December 1, 2006, do not apply to the PM_{10} emissions from this air contaminant source since the controlled potential to emit (PTE) is less than 10 tons per year taking into consideration federally enforceable requirements established under OAC rule 3745-31-05(D).

Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3)(a), as effective December 1, 2006, do not apply to the VOC emissions from this air contaminant source since the restricted potential to emit (PTE) is less than 10 tons per year taking into consideration federally enforceable requirements established under OAC rule 3745-31-05(D).

e. The uncontrolled mass rate of particulate emissions from P123 is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(ii), this emissions unit is exempt from the requirements of OAC rule 3745-17-11(B)(2).

f. On February 1, 2008, OAC rule 3745-17-11 was revised to include paragraph (C), pertaining to control requirements for particulate emissions from surface coating processes. These control requirements and the associated operational restrictions, monitoring, record keeping, and reporting requirements contained in this permit shall become federally enforceable on the date the U.S. EPA approves paragraph (C) of OAC rule 3745-17-11 as a revision to the Ohio State Implementation Plan.

g. This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A) pursuant to OAC rule 3745-17-07(A)(3)(h) because OAC rule 3745-17-11 is not applicable.

h. This emissions unit is exempt from the requirements of OAC rule 3745-21-09(U) pursuant to OAC rule 3745-21-09(U)(2)(e)(iii).

i. Pursuant to OAC rule 3745-21-09(O)(6)(a), solvent cleaning operations for Research and Development (R&D) purposes are exempt from the requirements of this rule.

j. Pursuant to 40 CFR 63.340(d), chromium anodizing operations for R&D purposes are exempt from NESHAP Subpart N.

k. Pursuant to 40 CFR 63.11505(d)(2), sodium dichromate sealing operations for R&D purposes is exempt from NESHAP Subpart WWWWWW.

l. The permittee shall not employ more than ten gallons of coating per day for the miscellaneous metal parts and products coating operations. The daily usage

limitation for the coating line shall not include coatings applied to parts or products which are not metal.

m. The emissions from the following processes associated with this emissions unit: Caustic Treatment, Chemical Film Coating, Chromic Acid Anodizing, Chromate Sealing, and Other Surface Treatments, shall be vented to a wet scrubber at all times when any of the processes are in operation.

c) Operational Restrictions

(1) The following operational restrictions have been included in this permit for the purpose of establishing federally enforceable requirements which limit PTE [see b)(2)a.]:

a. This emissions unit shall be vented to a wet scrubber system with a control efficiency of 90% for PM10 and Be; and

b. The use of dry filtration achieving a 95% control efficiency for PM10.

[OAC rule 3745-77-07(A)(1) and PTI #P0106908]

(2) The permittee shall operate and maintain the dry particulate filter system for the surface coating operations in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s) with any modifications deemed necessary by the permittee. The dry particulate filter shall be employed during all periods of coating application to control particulate emissions.

[OAC rule 3745-77-07(A)(1) and PTI #P0106908]

(3) The permittee shall expeditiously repair the dry particulate filter or otherwise return it to normal operations, as recommended by the manufacturer with any modifications deemed necessary by the permittee, whenever it is determined that the control device is not operating in accordance with these requirements.

[OAC rule 3745-77-07(A)(1) and PTI #P0106908]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall collect and record the following information each day for the coating line:

a. the name and identification number of each coating employed;

b. the volume, in gallons, of each coating employed; and

c. the total volume, in gallons, of all of the coatings employed.

[OAC rule 3745-77-07(C)(1) and PTI #P0106908]

(2) The permittee shall collect and record the following information on a daily basis for the cleanup materials applied in this emissions unit:

a. the number of gallons of each coating applied and solvent degreaser employed;

b. the maximum VOC content for each coating appliedand solvent degreaser employed, in pounds per gallon;

c. the total VOC emissions from all coatings appliedand solvent degreaser employed, i.e., the summation of the products of d)(2)a. times d)(2)b. for all the coatings appliedand solvent degreaser employed;

d. the name and identification of each cleanup material employed;

e. the VOC content of each cleanup material, in pounds per gallon;

f. the number of gallons of each cleanup material employed;

g. the total VOC emission rate from all cleanup materials, i.e., the summation of the products of d)(2)e. times d)(2)f. for all cleanup materials employed; and

h. the total VOC emissions from all coatings, degreaser and cleanup materials employed, in pounds or tons, the sum of d)(2)c. and d)(2)g.

[OAC rule 3745-77-07(C)(1) and PTI #P0106908]

(3) In order to demonstrate compliance with the 365-day, rolling VOC emission limitation, the permittee shall collect and record the following information each day for this emissions unit:

a. the 365-day summation, in tons, of the daily VOC emission rates, [i.e., the summation of d)(2)h.].

[OAC rule 3745-77-07(C)(1) and PTI #P0106908]

(4) In order to ensure compliance with the “Toxic Air Contaminant Statute”, each time the permittee makes a chemical change for a degreaser, coating material or clean-up material, the permittee must evaluate if the change results in an increase of over 1.0 ton per year for any toxic contaminant. If the 1.0 ton per year threshold is exceeded, please see g)(1).

[OAC rule 3745-77-07(C)(1) and PTI #P0106908]

(5) 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 performance testing is conducted and the appropriate range for each parameter is established to demonstrate compliance.

[OAC rule 3745-77-07(C)(1) and PTI #P0106908]

(6) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop across the scrubber (in pounds per square inch, gauge) and the scrubber liquid flow rate (in gallons per minute) during operation of this/these

emissions unit(s), 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 daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee. 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 performance testing is conducted and the appropriate range for each parameter is established to demonstrate compliance.

[OAC rule 3745-77-07(C)(1) and PTI #P0106908]

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

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

[OAC rule 3745-77-07(C)(1) and PTI #P0106908]

(8) 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 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.

[OAC rule 3745-77-07(C)(1) and PTI #P0106908]

(9) 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 appropriate Ohio EPA District Office or local air agency. 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 performance tests that demonstrate compliance with the allowable particulate emission rate for this/these emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

[OAC rule 3745-77-07(C)(1) and PTI #P0106908]

(10) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the dry particulate filter, along with documentation of any modifications deemed necessary by the permittee. These documents shall be maintained at the facility and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.

[OAC rule 3745-77-07(C)(1) and PTI #P0106908]

(11) The permittee shall conduct periodic inspections of the dry particulate filter to determine whether it is operating in accordance with the manufacturer’s recommendations, instructions, or operating manuals with any modifications deemed necessary by the permittee or operator. These inspections shall be performed at a frequency that shall be based upon the recommendation of the manufacturer and the permittee shall maintain a copy of the manufacturer’s recommended inspection frequency and it shall be made available to the Ohio EPA upon request.

[OAC rule 3745-77-07(C)(1) and PTI #P0106908]

(12) In addition to the recommended periodic inspections, not less than once each calendar year the permittee shall conduct a comprehensive inspection of the dry particulate filter while the emissions unit is shut down and perform any needed maintenance and repair to ensure that it is operated in accordance with the manufacturer's recommendations.

[OAC rule 3745-77-07(C)(1) and PTI #P0106908]

(13) The permittee shall document each inspection (periodic and annual) of the dry particulate filter system and shall maintain the following information:

a. the date of the inspection;

b. a description of each/any problem identified and the date it was corrected;

c. a description of any maintenance and repairs performed; and

d. the name of the person who performed the inspection.

These records shall be maintained at the facility for not less than five years from the date the inspection and any necessary maintenance or repairs were completed and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.

[OAC rule 3745-77-07(C)(1) and PTI #P0106908]

(14) The permittee shall maintain records that document any time periods when the dry particulate filter was not in service when the emissions unit(s) was/were in operation, as well as, a record of all operations during which the dry particulate filter was not operated according to the manufacturer's recommendations with any documented modifications made by the permittee. These records shall be maintained for a period of not less than five years and shall be made available to the Ohio EPA upon request.

[OAC rule 3745-77-07(C)(1) and PTI #P0106908]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify:

a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the Potential to Emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:

i. all exceedances of the 9.9. tons VOC per rolling, 365-day period for this emissions unit.

b. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and

c. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted (postmarked) each year by the thirty-first of January (covering October to December), the thirtieth of April (covering January to March), the thirty-first of July (covering April to June), and the thirty-first of October (covering July to September), unless an alternative schedule has been established and approved by the director (the appropriate district office or local air agency).

[OAC rule 3745-77-07(C)(1) and PTI #P0106908]

(2) The permittee shall submit quarterly deviation reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

a. each period of time (start time and date, and end time and date)when the pressure drop across the scrubber and/or the liquid flow rate was outside of the appropriate range or limit specified by the manufacturer and outside of the acceptable range following any required compliance demonstration;

b. any period of time (start time and date, and end time and date)when the emissions unit(s) was/were in operation and the process emissions were not vented to the scrubber;

c. each incident of deviation described in e)(2)a. or e)(2)b. where a prompt investigation was not conducted;

d. each incident of deviation described in e)(2)a. or e)(2)b. where prompt corrective action, that would bring the pressure drop and/or liquid flow rate into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. each incident of deviation described in e)(2)a. or e)(2)b. where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

[OAC rule 3745-77-07(C)(1) and PTI #P0106908]

(3) The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any daily record showing that the coating line employs more than the applicable maximum daily coating usage limit. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 45 days after the exceedance occurs.

[OAC rule 3745-77-07(C)(1) and PTI #P0106908]

(4) The permittee shall submit quarterly deviation (excursion) reports that identify the following:

a. any daily record showing that the dry particulate filter system was not in service or not operated according to manufacturer's recommendations (with any documented modifications made by the permittee) when the emissions unit(s) was/were in operation.

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

[OAC rule 3745-77-07(C)(1) and PTI #P0106908]

f) Testing Requirements

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

a. Emission Limitations:

0.046 lb PM10/hr, 0.20 tpy PM10

Applicable Compliance Method:

The hourly PM10 emission limitation was established by multiplying the company supplied emission factor by 90% control efficiency of the wet scrubber or by 95% control efficiency of dry filtration. The annual limitation was established by multiplying the hourly limitation by 8760 hours/year, and then dividing by 2000 lbs/ton.

If required, compliance with the PM10 limitation shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 51, Appendix M, Methods 201/201A. Alternative U.S.EPA-approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office (NWDO).

[OAC rule 3745-77-07(C)(1) and PTI #P0106908]

b. Emission Limitations:

0.00000017 lb Be/hr, 0.00000075 tpy Be

Applicable Compliance Method:

The hourly Be emission limitation was established by multiplying the company supplied emission factor by 90% control efficiency of the wet scrubber. The annual limitation was established by multiplying the hourly limitation by 8760 hours/year, and then dividing by 2000 lbs/ton.

If required, compliance with the Be limitation shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 – 4, and 29 or 104. Alternative U.S.EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

[OAC rule 3745-77-07(C)(1) and PTI #P0106908]

c. Emission Limitations:

9.9. tons VOC per rolling, 365-day period

Applicable Compliance Method:

The permittee shall demonstrate compliance with this emission limitation in accordance with the record keeping specified in d)(3).

[OAC rule 3745-77-07(C)(1) and PTI #P0106908]

d. Emission Limitations:

Coating usage in this emissions unit shall not exceed 10 gallons per day.

Applicable Compliance Method:

Compliance with the daily limit shall be based upon the record keeping specified in d)(1)c.

[OAC rule 3745-77-07(C)(1) and PTI #P0106908]

e. Emission Limitations:

Visible PE shall not exceed 5% opacity, as a six-minute average, from the stacks serving this emissions unit.

Applicable Compliance Method:

If required, compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

[OAC rule 3745-77-07(C)(1) and PTI #P0106908]

g) Miscellaneous Requirements

(1) Modeling to demonstrate compliance with, the “Toxic Air Contaminant Statute”, ORC 3704.03(F)(4)(b), was not necessary because the emissions unit’s maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit-to-install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit-to-install.

[OAC rule 3745-77-07(C)(1) and PTI #P0106908]

22. P126, Beryllium Products Vertical Milling Center No. 1

Operations, Property and/or Equipment Description:

Beryllium Products Vertical Milling Center No. 1

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

(1) b)(1)c.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI #P0109857, issued 04/17/2012)	Particulate matter equal to or less than 10 microns in size (PM10) shall not exceed 0.021 lb/hr and 0.09 ton PM10/yr. Beryllium (Be) emissions shall not exceed 0.021 lb/hr and 0.09 ton Be/year. Visible particulate emissions (PE) shall not exceed 5 % opacity, as a 6-minute average from building egress points. See b)(2)a. and c)(1)
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	See b)(2)b.
c	OAC rule 3745-31-05(A)(3)), as effective 12/01/06	See b)(2)c.
e.	OAC rule 3745-17-11(B)	See b)(2)d.
f.	OAC rule 3745-17-07(A)	See b)(2)e.
g.	40 CFR 61.32(b) [In accordance with 40 CFR 61.30, this emissions unit is located at a beryllium processing facility and has the potential to emit beryllium.]	See term 2 of section B. – FACILITY-WIDE TERMS AND CONDITIONS.

(2) Additional Terms and Conditions

a. This permit establishes the following federally enforceable emission limitations for the purpose of limiting potential to emit (PTE) to avoid Prevention of Significant Deterioration (PSD) requirements. The federally enforceable emission limitations are based on the operational restriction contained in c)(1) which require control equipment:

i. 0.021 lb PM10/hr and 0.09 ton PM10/yr;

ii. 0.021 lb Be/hr and 0.09 ton Be/yr; and

iii. Visible particulate emissions from building egress points serving this emissions unit shall not exceed 5% opacity, as a 6-minute average. In addition, it should be noted that the emissions from this baghouse are vented into the building and therefore the visible emissions restriction has been established based on emissions from the building.

All emissions of particulate matter from the baghouse are PM_{10} and include Be.

b. The requirements of this rule are equivalent to the requirements established pursuant to OAC rule 3745-31-05(D); therefore, the permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit.

On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 Changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, the requirements of 3745-31-05(A)(3) as effective 12-1-06 will no longer apply.

It should be noted that the emission limitations and control requirements established pursuant to OAC rule 3745-31-05(D) will remain applicable after the above SIP revisions are approved by U.S. EPA.

c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3)(a), as effective December 1, 2006, do not apply to the PM_{10} emissions from this air contaminant source since the controlled potential to emit (PTE) is less than 10 tons per year taking into consideration federally enforceable requirements established under OAC rule 3745-31-05(D).

d. The uncontrolled mass rate of particulate emissions (PE) from this emissions unit is less than 10 pounds/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 since the facility is located in Ottawa County, which is identified as a P-3 county.

e. This emissions unit is not subject to the visible PE limitations specified in OAC rule 3745-17-07(A) pursuant to OAC rule 3745-17-07(A)(3)(h) because OAC rule 3745-17-11 is not applicable.

c) Operational Restrictions

(1) The following operational restriction has been included in this permit for the purpose of establishing federally enforceable requirements which limit PTE [see b)(2)a.]:

a. All PE from this emissions unit shall be vented to a baghouse capable of achieving a maximum outlet concentration of 0.0013 grains/dscf of PM10.

[OAC rule 3745-77-07(A)(1) and PTI #P0109857]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emissions incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item d)(1)d. above or continue the daily check until the incident has ended. The observer may indicate that the visible emissions incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

[OAC rule 3745-77-07(C)(1) and PTI #P0109857]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and

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

These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

[OAC rule 3745-77-07(C)(1) and PTI #P0109857]

(2) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[OAC rule 3745-77-07(C)(1) and PTI #P0109857]

f) Testing Requirements

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

a. <u>Emission Limitations:</u>

0.0013 gr PM10/dscf

<u>Applicable Compliance Method:</u>

The 0.0013 gr PM10/dscf emission limitation was established in accordance with the manufacturer's guaranteed outlet grain loading concentration for the baghouse. If required, the permittee shall demonstrate compliance with the gr PM10/dscf by testing in accordance with Methods 1-4 of 40 CFR Part 60, Appendix A and Methods 201/201A and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

[OAC rule 3745-77-07(C)(1) and PTI #P0109857]

b. <u>Emission Limitations:</u>

0.021 lb PM10/hr and 0.09 ton PM10/yr

Applicable Compliance Method:

The hourly limitation was established by multiplying the maximum baghouse outlet concentration (0.0013 gr/dscf)by the maximum volumetric air flow rate (1,850 dscfm) vented into the building from this baghouse, and using the following conversion factors in order to convert to pounds per hour: 1 lb/7000 grains, 60 minutes/hr. If required, the permittee shall demonstrate compliance with the lb PM10/hr by testing in accordance with Methods 1-4 of 40 CFR Part 60, Appendix A and Methods 201/201A and 202, of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

The annual limitation was established by multiplying the maximum baghouse outlet concentration of 0.0013 gr/dscf, the maximum volumetric air flow rate (1,850 dscfm) vented into the building from this baghouse, and using the following conversion factors in order to convert to tons per year: 1 lb/7000 grains, 60 minutes/hour, 8760 hours/year and 1 ton/2000 lbs. Therefore, provided compliance is demonstrated with the 0.0013 gr PM10/dscf limitation, compliance with the annual limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0109857]

c. Emission Limitations:

0.021 lb Be/hr and0.09 ton Be/yr

Applicable Compliance Method:

The emission limitation was established based on the company supplied emission factor of 0.021 lb Be/hr, in accordance with the manufacturer's guaranteed outlet grain loading of the baghouse. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4 of 40 CFR Part 60, Appendix A and Method 29 or 104 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

The annual limitation was established by multiplying the hourly limitation by the maximum operating schedule of 8,760 hours/year and then dividing by 2,000 pounds/ton. Therefore, provided compliance is shown with the pound per hour limitation, compliance with the annual emission limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0109857]

d. Emission Limitations:

Visible PE shall not exceed 5% opacity, as a 6-minute average, from building egress points.

Applicable Compliance Method:

If required, compliance with the visible emission limitation listed above shall be determined according to Test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

[OAC rule 3745-77-07(C)(1) and PTI #P0109857]

g) Miscellaneous Requirements

(1) None.

23. P127, R & S - 1

Operations, Property and/or Equipment Description:

R & D beryllium casting process trial line

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI #P0106979, issued 11/23/2010)	Particulate matter equal to or less than 10 microns in size (PM10) shall not exceed 0.000007 lb/hr and 0.000031 ton PM10/yr. Beryllium (Be) emissions shall not exceed 0.000007 lb/hr and 0.000031 ton Be/year. Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 5% opacity, as a six minute average. See b)(2)a. and c)(1)
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	See b)(2)b.
c	OAC rule 3745-31-05(A)(3), as effective 12/01/06	See b)(2)c.
e.	OAC rule 3745-17-11(B)	See b)(2)d.
f.	OAC rule 3745-17-07(A)	See b)(2)e.
g.	40 CFR 61.32(b) [In accordance with 40 CFR 61.30, this emissions unit is located at a beryllium processing facility and has the potential to emit beryllium.]	See term 2 of section B. – FACILITY-WIDE TERMS AND CONDITIONS.

(2) Additional Terms and Conditions

a. This permit establishes the following federally enforceable emission limitations for the purpose of limiting potential to emit (PTE) to avoid Prevention of Significant Deterioration (PSD) requirements. The federally enforceable emission limitations are based on the operational restriction contained in c)(1) which require control equipment:

i. 0.000007 pound PM_{10}/hour and 0.000031 ton PM_{10}/year;

ii. 0.000007 pound Be/hour and 0.000031 ton Be/year; and

iii. Visible particulate emissions from any stack serving this emissions unit shall not exceed 5% opacity, as a six minute average.

All emissions of particulate matter from the wet scrubber stack are PM_{10} and include Be.

b. The requirements of this rule are equivalent to the requirements established pursuant to OAC rule 3745-31-05(D); therefore, the permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit.

On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 Changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, the requirements of 3745-31-05(A)(3) as effective 12-1-06 will no longer apply.

It should be noted that the emission limitations and control requirements established pursuant to OAC rule 3745-31-05(D) will remain applicable after the above SIP revisions are approved by U.S. EPA.

c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3)(a), as effective December 1, 2006, do not apply to the PM_{10} emissions from this air contaminant source since the controlled potential to emit (PTE) is less than 10 tons per year taking into consideration federally enforceable requirements established under OAC rule 3745-31-05(D).

d. The uncontrolled mass rate of particulate emissions (PE) from this emissions unit is less than 10 pounds/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 since the facility is located in Ottawa County, which is identified as a P-3 county.

e. This emissions unit is not subject to the visible PE limitations specified in OAC rule 3745-17-07(A) pursuant to OAC rule 3745-17-07(A)(3)(h) because OAC rule 3745-17-11 is not applicable.

c) Operational Restrictions

(1) The following operational restriction has been included in this permit for the purpose of establishing federally enforceable requirements which limit PTE [see b)(2)a.]:

a. All PE from this emissions unit shall be vented to a wet scrubber system with a control efficiency of 80%.

[OAC rule 3745-77-07(A)(1) and PTI #P0106979]

d) Monitoring and/or Recordkeeping Requirements

(1) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable scrubber liquid flow rate and range for the pressure drop across the scrubberthat must be maintained in order to demonstrate compliance shall not be less than850 gallons per minute and shall be between 0.3 to 2.0 pounds per square inch (gauge), respectively.

[OAC rule 3745-77-07(C)(1) and PTI #P0106979]

(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) and the scrubber liquid flow rate (in gallons per minute) during operation of this/these emissions unit(s), 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 daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

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

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

[OAC rule 3745-77-07(C)(1) and PTI #P0106979]

(3) 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 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.

[OAC rule 3745-77-07(C)(1) and PTI #P0106979]

(4) 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 appropriate Ohio EPA District Office or local air agency. 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 performance tests that demonstrate compliance with the allowable particulate emission rate for this/these emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

[OAC rule 3745-77-07(C)(1) and PTI #P0106979]

e) Reporting Requirements

(1) The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

a. each period of time (start time and date, and end time and date)when the pressure drop across the scrubber and/or the liquid flow rate was/were outside of the appropriate range or exceeded the applicable limit contained in this permit;

b. any period of time (start time and date, and end time and date)when the emissions unit(s) was/were in operation and the process emissions were not vented to the scrubber;

c. each incident of deviation described in e)(1)a. or e)(1)b. where a prompt investigation was not conducted;

d. each incident of deviation described in e)(1)a.or e)(1)b. where prompt corrective action, that would bring the pressure drop and/or liquid flow rate into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. each incident of deviation described in e)(1)a.or e)(1)b. where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

The quarterly reports shall be submitted,electronically through Ohio EPA Air Services, each year by January 31, April 30, July 31, and October 31, and shall cover the previous calendar quarters unless an alternative schedule has been established and approved by the Director (Ohio EPA, Northwest District Office).

[OAC rule 3745-77-07(C)(1) and PTI #P0106979]

(2) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[OAC rule 3745-77-07(C)(1) and PTI #P0106979]

f) Testing Requirements

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

a. <u>Emission Limitations:</u>

0.000007 lb PM_{10}/hr, 0.000031 ton PM_{10}/yr

<u>Applicable Compliance Method:</u>

The hourly limitation was established by multiplying the company supplied emission factor of 0.00035 lbPM_{10}/hr by the wet scrubber control efficiency of 80% (0.20) If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4 of 40 CFR Part 60, Appendix A and Methods 201/201A and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

The annual limitation was established by multiplying the hourly limitation by the maximum operating schedule of 8,760 hours/year and then dividing by 2,000

pounds/ton. Therefore, provided compliance is shown with the pound per hour limitation, compliance with the annual emission limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0106979]

b. Emission Limitations:

0.000007 lb Be/hr, 0.000031 ton Be/yr

Applicable Compliance Method:

The hourly limitation was established by multiplying the company supplied emission factor of 0.00035 lbBe/hr by the wet scrubber control efficiency of 80% (0.20) If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4 of 40 CFR Part 60, Appendix A and Method 29 or 104 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

The annual limitation was established by multiplying the hourly limitation by the maximum operating schedule of 8,760 hours/year and then dividing by 2,000 pounds/ton. Therefore, provided compliance is shown with the pound per hour limitation, compliance with the annual emission limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0106979]

c. Emission Limitations:

Visible PE from any stack serving this emissions unit shall not exceed 5% opacity, as a six minute average.

Applicable Compliance Method:

If required, compliance with the visible emission limitation listed above shall be determined according to Test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

[OAC rule 3745-77-07(C)(1) and PTI #P0106979]

g) Miscellaneous Requirements

(1) None.

24. Emissions Unit Group -Group A: B006, B007

EU ID	Operations, Property and/or Equipment Description
B006	12.8 mmBtu/hr Natural Gas-fired Boiler
B007	12.8 mmBtu/hr Natural Gas-fired Boiler

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/01 (PTI #P0106624, issued 07/26/2010)	1.26 lbs nitrogen oxides (NOx)/hr; 5.50 tons NOx/yr 1.05 lbs carbon monoxide (CO)/hr; 4.62 tons CO/yr 0.096 lb particulate matter less than 10 microns in size (PM10)/hr; 0.42 ton PM10/yr 0.068 lb volatile organic compound (VOC)/hr; 0.30 ton VOC/yr 0.008 lb sulfur dioxide (SO2)/hr ; 0.033 ton SO2/yr See b)(2)a. and b)(2)b.
b.	OAC rule 3745-31-05(A)(3), as effective 12/01/06	See b)(2)c.
c.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20% opacity as a 6-minute average except as provided by rule.
d.	OAC rule 3745-17-10(B)(1)	The maximum allowable amount of particulate emissions shall be 0.020 lb/mmBtu of actual heat input. See b)(2)d.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
e.	OAC rule 3745-18-06	See b)(2)e.
f.	40 CFR, Part 60, Subpart Dc	Record keeping See d)(2).

(2) Additional Terms and Conditions

a. The Best Available Technology (BAT) requirements for this emission unit have been determined to be the use of natural gas and compliance with the terms and conditions of this permit.

b. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective, November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutant less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to nitrogen oxide (NOx), carbon monoxide (CO), particulate matter 10 microns or less in size (PM10), sulfur dioxide (SO2), and volatile organic compound (VOC) emissions from this air contaminant source since the uncontrolled potential to emit for NOx, CO, PM10, SO2, VOC are each less than ten tons per year.

The potential to emit for NOx emissions equals 5.50 tons/yr and was determined by dividing the maximum emission rate of 100 lbs NOx/10^6 scf of natural gas (AP-42, Section 1.4, Table 1.4-1, 7/98) by a heat content of 1020 Btu/scf, and multiplying by a maximum heat input of 12.8 mmBtu/hr, a maximum operating schedule of 8,760 hrs/yr, and a conversion factor of 1 ton/2000 lbs.

The potential to emit for CO emissions equals 4.62 tons/yr and was determined by dividing the maximum emission rate of 84 lbs CO/10^6 scf of natural gas (AP-42, Section 1.4, Table 1.4-1, 7/98) by a heat content of 1020 Btu/scf, and multiplying by a maximum heat input of 12.8 mmBtu/hr, a maximum operating schedule of 8,760 hrs/yr, and a conversion factor of 1 ton/2000 lbs.

The potential to emit for PM10 emissions equals 0.42 ton/yr and was determined by dividing the maximum emission rate of 7.6 lbs PM10/10^6 scf of natural gas

(AP-42, Section 1.4, Table 1.4-2, 7/98) by a heat content of 1020 Btu/scf, and multiplying by a maximum heat input of 12.8 mmBtu/hr, a maximum operating schedule of 8,760 hrs/yr, and a conversion factor of 1 ton/2000 lbs. [Note: All emissions of particulate matter are PM10].

The potential to emit for VOC emissions equals 0.30 ton/yr and was determined by dividing the maximum emission rate of 5.5 lbs VOC/10^6 scf of natural gas (AP-42, Section 1.4, Table 1.4-2, 7/98) by a heat content of 1020 Btu/scf, and multiplying by a maximum heat input of 12.8 mmBtu/hr, a maximum operating schedule of 8,760 hrs/yr, and a conversion factor of 1 ton/2000 lbs.

The potential to emit for SO2 emissions equals 0.033 ton/yr and was determined by dividing the maximum emission rate of 0.6 lb SO2/10^6 scf of natural gas (AP-42, Section 1.4, Table 1.4-2, 7/98) by a heat content of 1020 Btu/scf, and multiplying by a maximum heat input of 12.8 mmBtu/hr, a maximum operating schedule of 8,760 hrs/yr, and a conversion factor of 1 ton/2000 lbs.

d. The potential to emit for particulate emissions from this emissions unit [see b)(2)b.] is less than the allowable emission limitation established pursuant to this rule.

e. The emissions unit is exempt from the requirements of OAC rule 3745-18-06 in accordance with OAC rule 3745-18-06(A).

c) Operational Restrictions

(1) The permittee shall burn natural gas in this emissions unit. The permittee may use propane as an emergency back-up fuel.

[OAC rule 3745-77-07(A)(1) and PTI #P0106624]

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 and quantity of fuel burned in this emissions unit.

[OAC rule 3745-77-07(C)(1) and PTI #P0106624]

(2) The permittee shall collect and record the volume (mmft3) of natural gas combusted in this emissions unit each calendar month.

[OAC rule 3745-77-07(C)(1); 40 CFR Part 60, Subpart Dc; and PTI #P0106624]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than pipeline quality natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[OAC rule 3745-77-07(C)(1) and PTI #P0106624]

(2) This emissions unit is subject to the applicable provisions of Subpart Dc of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60.

The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to 40 CFR Part 60.7, the permittee is hereby advised of the requirement to report the following at the appropriate times:

a. construction date (no later than 30 days after such date);

b. actual start-up date (within 15 days after such date); and,

c. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
Northwest District Office
Division of Air Pollution Control
347 North Dunbridge Road
Bowling Green, Ohio 43402

[OAC rule 3745-77-07(C)(1); 40 CFR, Part 60; and PTI #P0106624]

f) Testing Requirements

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

a. <u>Emission Limitations</u>:
1.26 lbs NOx/hr; 5.50 tons NOx/yr

<u>Applicable Compliance Method</u>:
The hourly limitation was developed by dividing the maximum emission rate of 100 lbs NOx/10^6 scf of natural gas (AP-42, Section 1.4, Table 1.4-1, 7/98) by a heat content of 1020 Btu/scf, and multiplying by a maximum heat input of 12.8 mmBtu/hr.

The potential to emit for NOx emissions equals 5.50 tons/yr and was determined by dividing the maximum emission rate of 100 lbs NOx/10^6 scf of natural gas (AP-42, Section 1.4, Table 1.4-1, 7/98) by a heat content of 1020 Btu/scf, and multiplying by a maximum heat input of 12.8 mmBtu/hr, a maximum operating schedule of 8,760 hrs/yr, and a conversion factor of 1 ton/2000 lbs.

If required, the permittee shall demonstrate compliance with the hourly allowable emission limitation above in accordance with 40 CFR, Part 60, Appendix A, Methods 1-4 and 7.

[OAC rule 3745-77-07(C)(1) and PTI #P0106624]

b. Emission Limitations:
1.05 lbs CO/hr; 4.62 tons CO/yr

Applicable Compliance Method:
The hourly limitation was developed by dividing the maximum emission rate of 84 lbs CO/10^6 scf of natural gas (AP-42, Section 1.4, Table 1.4-1, 7/98) by a heat content of 1020 Btu/scf, and multiplying by a maximum heat input of 12.8 mmBtu/hr.

The potential to emit for CO emissions equals 4.62 tons/yr and was determined by dividing the maximum emission rate of 84 lbs CO/10^6 scf of natural gas (AP-42, Section 1.4, Table 1.4-1, 7/98) by a heat content of 1020 Btu/scf, and multiplying by a maximum heat input of 12.8 mmBtu/hr, a maximum operating schedule of 8,760 hrs/yr, and a conversion factor of 1 ton/2000 lbs.

If required, the permittee shall demonstrate compliance with the hourly allowable emission limitation above in accordance with 40 CFR, Part 60, Appendix A, Method 10.

[OAC rule 3745-77-07(C)(1) and PTI #P0106624]

c. Emission Limitations:
0.096 lb PM10/hr; 0.42 ton PM10/yr

Applicable Compliance Method:
The hourly limitation was developed by dividing the maximum emission rate of 7.6 lbs PM10/10^6 scf of natural gas (AP-42, Section 1.4, Table 1.4-2, 7/98) by a heat content of 1020 Btu/scf, and multiplying by a maximum heat input of 12.8 mmBtu/hr.

The potential to emit for PM10 emissions equals 0.42 ton/yr and was determined by dividing the maximum emission rate of 7.6 lbs PM10/10^6 scf of natural gas (AP-42, Section 1.4, Table 1.4-2, 7/98) by a heat content of 1020 Btu/scf, and multiplying by a maximum heat input of 12.8 mmBtu/hr, a maximum operating schedule of 8,760 hrs/yr, and a conversion factor of 1 ton/2000 lbs. [Note: All emissions of particulate matter are PM10].

If required, the permittee shall demonstrate compliance with the hourly allowable emission limitation above in accordance with 40 CFR, Part 60, Appendix A, Methods 201 and 201A.

[OAC rule 3745-77-07(C)(1) and PTI #P0106624]

d. Emission Limitations:
0.068 lb VOC/hr; 0.30 ton VOC/yr

Applicable Compliance Method:\
The hourly limitation was developed by dividing the maximum emission rate of 5.5 lbs VOC/10^6 scf of natural gas (AP-42, Section 1.4, Table 1.4-2, 7/98) by a heat content of 1020 Btu/scf, and multiplying by a maximum heat input of 12.8 mmBtu/hr.

The potential to emit for VOC emissions equals 0.30 ton/yr and was determined by dividing the maximum emission rate of 5.5 lbs VOC/10^6 scf of natural gas (AP-42, Section 1.4, Table 1.4-2, 7/98) by a heat content of 1020 Btu/scf, and multiplying by a maximum heat input of 12.8 mmBtu/hr, a maximum operating schedule of 8,760 hrs/yr, and a conversion factor of 1 ton/2000 lbs.

If required, the permittee shall demonstrate compliance with the hourly allowable emission limitation above in accordance with 40 CFR, Part 60, Appendix A, Method 18.

[OAC rule 3745-77-07(C)(1) and PTI #P0106624]

e. Emission Limitations:
0.008 lb sulfur dioxide (SO2)/hr ; 0.033 ton SO2/yr

Applicable Compliance Method:
The hourly limitation was developed by dividing the maximum emission rate of 0.6 lb SO2/10^6 scf of natural gas (AP-42, Section 1.4, Table 1.4-2, 7/98) by a heat content of 1020 Btu/scf, and multiplying by a maximum heat input of 12.8 mmBtu/hr.

The potential to emit for SO2 emissions equals 0.033 ton/yr and was determined by dividing the maximum emission rate of 0.6 lb SO2/10^6 scf of natural gas (AP-42, Section 1.4, Table 1.4-2, 7/98) by a heat content of 1020 Btu/scf, and multiplying by a maximum heat input of 12.8 mmBtu/hr, a maximum operating schedule of 8,760 hrs/yr, and a conversion factor of 1 ton/2000 lbs.

If required, the permittee shall demonstrate compliance with the hourly allowable emission limitation above in accordance with 40 CFR, Part 60, Appendix A, Method 6.

[OAC rule 3745-77-07(C)(1) and PTI #P0106624]

f. Emission Limitation:
Visible PE shall not exceed 20% opacity as a 6-minute average except as provided by rule

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance pursuant to the methods and procedures specified in OAC rule 3745-17-03(B)(1).

[OAC rule 3745-77-07(C)(1) and PTI #P0106624]

g. Emission Limitation:
The maximum allowable amount of particulate emissions shall be 0.020 lb/mmBtu of actual heat input

Applicable Compliance Method:

Compliance with the lb/mmBtu emission limitation shall be determined by converting the 1.9 lb PE/mmscf of natural gas from AP-42, Section 1.4, Table 1.4-2, 7/98) into lb/mmBtu by dividing by 1020 Btu/scf of natural gas. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1 - 4, and 5 of 40 CFR Part 60, Appendix A.

[OAC rule 3745-77-07(C)(1) and PTI #P0106624]

g) Miscellaneous Requirements

(1) None.

25. Emissions Unit Group -Group B: P013, P018, P026, P090, P092, P096, P097

EU ID	Operations, Property and/or Equipment Description
P013	Alloy Heavy Gauge Bulk Pickling and Caustic Cleaning
P018	Powder Metal - Security, Front, CNC Machine Shops, EDM Area, Saw Room
P026	Wet Plant – tanks/mixing operations
P090	Furnace Rebuild Grit Blasting Operations
P092	Heavy Gage Strip - Vacuum Cleaning System
P096	Skin Machine Shop
P097	PMP - Powdering Central Vacuum Systems

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 operations(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. 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 3745-17-11(B)	See b)(2)a.
b.	OAC rule 3745-17-07(A)	See b)(2)b.
c.	40 CFR, Part 61, Subpart C (40 CFR 61.30-34) [In accordance with 40 CFR 61.30, this emissions unit is located at a beryllium processing facility and has the potential to emit beryllium.]	See B.2., B.3., and B.4. – Facility-Wide Terms and Conditions.

(2) Additional Terms and Conditions

a. The uncontrolled mass rate of particulate emissions (UMRE) from each emissions unit is less than 10 lbs/hr. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. Also, Table I does not apply because the facility is located in Ottawa County.

b. Each emissions unit is exempt from the visible emissions limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

26. Emissions Unit Group -Group C: P001, P022

EU ID	Operations, Property and/or Equipment Description
P001	General Furnace Rebuild Operations – Building #18
P022	Powder Metal Press – Vacuum Casting Furnace, Charge Make-up

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 operations(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. 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 3745-17-11(B)	See b)(2)a.
b.	OAC rule 3745-17-07(A)	See b)(2)b.
c.	OAC rule 3745-18-06(E)	See b)(2)c.
d.	40 CFR, Part 61, Subpart C (40 CFR 61.30-34) [In accordance with 40 CFR 61.30, this emissions unit is located at a beryllium processing facility and has the potential to emit beryllium.]	See B.2., B.3., and B.4. – Facility-Wide Terms and Conditions.

(2) Additional Terms and Conditions

a. The uncontrolled mass rate of particulate emissions (UMRE) from this emissions unit is less than 10 lbs/hr. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. Also, Table I does not apply because the facility is located in Ottawa County.

b. This emissions unit is exempt from the visible emissions limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.

c. The maximum process weight rate for this emissions unit is less than 1000 lbs/hr. Therefore, pursuant to OAC rule 3745-18-06 (C), this emissions unit is exempt from OAC rule 3745-18-06(E).

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

27. Emissions Unit Group -Group D: P033, P061, P094, P095

EU ID	Operations, Property and/or Equipment Description
P033	Alloy RBT Bulk Cleaning System
P061	Powder/Chip Leaching Reactor
P094	Alloy – Whiting Pelletizer
P095	Master Alloy Vacuum Systems

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (P033, PTI #03-1366, issued 09/07/1983), (P061, PTI #03-5842, issued 11/27/1991), and (P094 and P095, PTI #03-00899, issued 07/28/1980)	See b)(2)a.
b.	OAC rule 3745-17-11(B)	See b)(2)b.
c.	OAC rule 3745-17-07(A)	See b)(2)c.
d.	40 CFR, Part 61, Subpart C (40 CFR 61.30-34) [In accordance with 40 CFR 61.30, this emissions unit is located at a beryllium processing facility and has the potential to emit beryllium.]	See B.2., B.3., and B.4. – Facility-Wide Terms and Conditions.

(2) Additional Terms and Conditions

a. There were no emissions limitations established pursuant to OAC rule 3745-31-05(A)(3).

b. The uncontrolled mass rate of particulate emissions (UMRE) from this emissions unit is less than 10 lbs/hr. Therefore, pursuant to OAC rule 3745-17-

11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. Also, Table I does not apply because the facility is located in Ottawa County.

c. This emissions unit is exempt from the visible emissions limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

28. Emissions Unit Group -Group E: P042, P043

EU ID	Operations, Property and/or Equipment Description
P042	Beryllium Oxide Furnace #7
P043	Beryllium Oxide Furnace #8

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI #03-10937, issued 03/05/1981)	See b)(2)a.
b.	OAC rule 3745-17-11(B)	See b)(2)b.
c.	OAC rule 3745-17-07(A)	See b)(2)c.
d.	OAC rule 3745-18-06(E)	See b)(2)d.
e.	40 CFR, Part 61, Subpart C (40 CFR 61.30-34) [In accordance with 40 CFR 61.30, this emissions unit is located at a beryllium processing facility and has the potential to emit beryllium.]	See B.2., B.3., and B.4. – Facility-Wide Terms and Conditions.

(2) Additional Terms and Conditions

a. The requirements established pursuant to this rule are equivalent to compliance with 40 CFR Part 61, Subpart C.

b. The uncontrolled mass rate of particulate emissions (UMRE) from this emissions unit is less than 10 lbs/hr. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. Also, Table I does not apply because the facility is located in Ottawa County.

c. This emissions unit is exempt from the visible emissions limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.

d. The maximum process weight rate for this emissions unit is less than 1000 lbs/hr. Therefore, pursuant to OAC rule 3745-18-06(C), this emissions unit is exempt from OAC rule 3745-18-06(E).

c) Operational Restrictions

(1) The permittee shall burn only natural gas in this emissions unit.

[OAC rule 3745-77-07(A)(1) and PTI #03-10937]

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 and quantity of fuel burned in this emissions unit.

[OAC rule 3745-77-07(C)(1) and PTI #03-10937]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[OAC rule 3745-77-07(C)(1) and PTI #03-10937]

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

29. Emissions Unit Group -Group F: P049, P063

EU ID	Operations, Property and/or Equipment Description
P049	Chemical Metallurgy R and D Lab
P063	PMP Atomization

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (applicable to P063, PTI #P0106913, issued 11/17/2010)	<u>For emissions unit P063</u>: Particulate matter equal to or less than 10 microns in size (PM10) shall not exceed 0.79 lb PM10/hr and 3.46 tons PM10/yr. Beryllium (Be) emissions shall not exceed 0.00002 lb/hr and 0.000088 tons/yr. Visible particulate emissions (PE) shall not exceed 0% opacity, as a six-minute average. See b)(2)a. and c)(1)
b.	OAC rule 3745-31-05(D) (applicable to P049, PTI #P0106914, issued 11/17/2010)	<u>For emissions unit P049</u>: Particulate matter equal to or less than 10 microns in size (PM10) shall not exceed 0.26 lb PM10/hr and 1.15 tons/yr. Beryllium (Be) emissions shall not exceed 0.13 lb/hr and 0.57 tons/yr. Visible PE shall not exceed 0% opacity, as a six-minute average. See b)(2)a. and c)(1)
c.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	See b)(2)b.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-31-05(A)(3), as effective 12/01/06	See b)(2)c.
e.	OAC rule 3745-17-11(B)	See b)(2)d.
f.	OAC rule 3745-17-07(A)	See b)(2)d.
g.	40 CFR, Part 64 – Compliance Assurance Monitoring (CAM)	P049 and P063: See d)(1) through d)(3), and e)(1).
h.	40 CFR, Part 61, Subpart C (40 CFR 61.30-34) [In accordance with 40 CFR 61.30, this emissions unit is located at a beryllium processing facility and has the potential to emit beryllium.]	See B.2., B.3., and B.4. – Facility-Wide Terms and Conditions.

(2) Additional Terms and Conditions

a. This permit establishes the following federally enforceable emission limitations for the purpose of limiting potential to emit (PTE) to avoid Prevention of Significant Deterioration (PSD) requirements. The federally enforceable emission limitations are based on the operational restriction contained in c)(1) which require control equipment:

i. 0.26 lb PM10/hr and 1.15 tons PM10/yr for emissions unit P049;

ii. 0.79 lb PM10/hr and 3.46 tons PM10/yr for emissions unit P063;

iii. 0.13 lb Be/hr and 0.57 ton Be/yr for emissions unit P049;

iv. 0.00002 lb Be/hr and 0.000088 tons Be/yr for emissions unit P063; and

v. Visible particulate emissions shall not exceed 0% opacity, as a six-minute average.

All emissions of particulate matter are PM10 and include Be.

b. The requirements of this rule are equivalent to the requirements established pursuant to OAC rule 3745-31-05(D); therefore, the permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit.

On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 Changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists

as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, the requirements of 3745-31-05(A)(3) as effective 12-1-06 will no longer apply.

It should be noted that the emission limitations and control requirements established pursuant to OAC rule 3745-31-05(D) will remain applicable after the above SIP revisions are approved by U.S. EPA.

c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3)(a), as effective December 1, 2006, do not apply to the PM_{10} emissions from this air contaminant source since the controlled potential to emit (PTE) is less than 10 tons per year taking into consideration federally enforceable requirements established under OAC rule 3745-31-05(D).

d. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D).

c) Operational Restrictions

(1) The following operational restriction has been included in this permit for the purpose of establishing federally enforceable requirements which limit PTE [see b)(2)a.]:

a. All PE from emissions unit P049 shall be vented to a baghouse (C-8-5-1) capable of achieving a maximum outlet concentration of 0.005 grains PM10/dscf.

[OAC rule 3745-77-07(A)(1) and PTI #P0106914]

b. All PE from emissions unit P063 shall be vented to a baghouse (C-48-1-1) capable of achieving a maximum outlet concentration of 0.0021 grains/dscf of PM10.

[OAC rule 3745-77-07(A)(1) and PTI #P0106913]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily checks, when either or both of these emissions unitsare in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving the emissions unit. The presence or absence of any visible emissions shall be noted in an operations log, as well as the date and time the daily check was performed. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. the total duration of any visible emission incident; and

c. any corrective actions taken to eliminate the visible emissions.

[OAC rule 3745-77-07(C)(1), PTI #P0106913, PTI #P0106914, and 40 CFR Part 64]

(2) The CAM plan for these emissions units has been developed for particulate emissions. The CAM performance indicator for the baghouse controlling this emissions unit is daily visible emissions checks. When the daily visible emissions checks show operation outside the normal or usual manner of operation, the permittee shall take corrective actions to restore operation of the emissions unit and/or its control equipment to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions, and shall comply with the reporting requirements specified in Section e) below. The emissions unit and control equipment shall be operated in accordance with the approved CAM Plan or any approved revision of the Plan. The baghouse shall not be configured to have bypass capability.

[OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

(3) If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance, the permittee shall promptly notify the appropriate Ohio EPA District Office or local air agency, and if necessary, submit a proposed modification to the Title V permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, re-establishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

[OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the stack serving either or both of these emissions units; and

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

These reports shall be submitted to the appropriate Ohio EPA district office or local field office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[OAC rule 3745-77-07(C)(1), PTI #P0106913, PTI #P0106914, and 40 CFR Part 64]

f) Testing Requirements

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

a. Emission Limitations:

0.005 gr PM10/dscf, for P049

Applicable Compliance Method:

The 0.005 gr PM10/dscf emission limitation was established in accordance with the maximum outlet grain loading concentration for the cartridge filter. If required, the permittee shall demonstrate compliance with the gr PM10/dscf by testing in accordance with Methods 201/201A and 202 of 40 CFR, Part 51, Appendix M. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

[OAC rule 3745-77-07(C)(1) and PTI #P0106914]

b. Emission Limitations:

0.26 lb PM10/hr and 1.15 tons PM10 /yr, for P049

Applicable Compliance Method:

The hourly limitation was established by multiplying the maximum cartridge filter outlet concentration of 0.005 gr/dscf, the maximum volumetric air flow rate (6,140 acfm) contributed from this emissions unit to the cartridge filter, and using the following conversion factors in order to covert to pounds per hour 1 lb/7000 grains, 60 minutes/hour.

The annual limitation was established by multiplying the maximum cartridge filter outlet concentration of 0.005 gr/dscf, the maximum volumetric air flow rate (6,140 acfm) contributed from this emissions unit to the cartridge filter, and using the following conversion factors in order to covert to tons per year: 1 lb/7000 grains, 60 minutes/hour, 8760 hours/year and 1 ton/2000 lbs. Therefore, provided compliance is demonstrated with the 0.005 gr PM10/dscf limitation, compliance with the hourly and annual limitationsshall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0106914]

c. Emission Limitations:

0.0021 gr PM10/dscf, for P063

Applicable Compliance Method:

The 0.0021 gr PM10/dscf emission limitation was established in accordance with the maximum outlet grain loading concentration for the cartridge filter. If required, the permittee shall demonstrate compliance with the gr PM10/dscf by testing in accordance with Methods 201/201A and 202 of 40 CFR, Part 51, Appendix M. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

[OAC rule 3745-77-07(C)(1) and PTI #P0106913]

d. Emission Limitations:

0.79 lb PM10/hr and 3.46 tons PM10 /yr, for P063

Applicable Compliance Method:

The hourly limitation was established by multiplying the maximum cartridge filter outlet concentration of 0.0021 gr/dscf, the maximum volumetric air flow rate (44,000 acfm) contributed from this emissions unit to the cartridge filter, and using the following conversion factors in order to convert to pounds per hour 1 lb/7000 grains, 60 minutes/hour.

The annual limitation was established by multiplying the maximum cartridge filter outlet concentration of 0.0021 gr/dscf, the maximum volumetric air flow rate (44,000 acfm) contributed from this emissions unit to the cartridge filter, and using the following conversion factors in order to convert to tons per year: 1 lb/7000 grains, 60 minutes/hour, 8760 hours/year and 1 ton/2000 lbs. Therefore, provided compliance is demonstrated with the 0.0021 gr PM10/dscf limitation, compliance with the hourly and annual limitations shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0106913]

e. Emission Limitations:

0.13 lb Be/hr and 0.57 ton Be/yr, for P049

Applicable Compliance Method:

Compliance with the hourly Be limitation may be determined by multiplying the maximum Be content of 50.0 %, by weight, by the controlled PM10 emission limitation of 0.005 gr/dscf, the cartridge filter's maximum volumetric air flow rate (6,140 acfm), 60 minutes/hour, and dividing by 7000 gr/lb. If required, the permittee shall demonstrate compliance with the hourly allowable Be limitation in accordance with Methods 1-4, and 29 or 104 of 40 CFR, Part 60, Appendix A.

The annual limitation was established by multiplying the hourly emission limitation by 8760 hrs/year, and then dividing by 2000 lbs/ton. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0106914]

f. Emission Limitations:

0.00002 lb Be/hr and 0.000088 ton Be/yr, for P063

Applicable Compliance Method:

This emission limitation was established from the worst case hourly emission rate, based on the recent stack test result of 0.00002 lb Be/hr. If required, the

permittee shall demonstrate compliance with the hourly allowable Be limitation in accordance with Methods 1-4, and 29 or 104 of 40 CFR, Part 60, Appendix A.

The annual limitation was established by multiplying 8760 hours/year and 1 ton/2000 lbs. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0106913]

g. Emission Limitations:

Visible PE shall not exceed 0% opacity, as a six-minute average from the stack serving this emissions unit, (for emissions units P049 and P063).

Applicable Compliance Method:

If required, compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

[OAC rule 3745-77-07(C)(1), PTI #P0106913, and PTI #P0106914]

g) Miscellaneous Requirements

(1) None.

30. Emissions Unit Group -Group G: P075, P082, P083, P086

EU ID	Operations, Property and/or Equipment Description
P075	Furnace Rebuild
P082	Alloy Induction Furnace No. 7
P083	Alloy Induction Furnace No. 8
P086	Cast Shop No. 2 Vacuum

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI #03-17251, issued 07/03/2007)	<u>P075, P082, and P083</u>: Particulate matter equal to or less than 10 microns in size (PM10) shall not exceed 0.49 lb/hr and 2.15 tons per year (TPY) (for emissions units P075, P082 and P083, combined) Beryllium (Be) emissions shall not exceed 0.002 lb/hr and 0.009 TPY (for emissions units P075, P082 and P083, combined) Visible particulate fugitive emissions shall not exceed 0% opacity, as a six minute average, from the building housing emissions units P075, P082, P083, and P086. <u>P086</u>: PM10 shall not exceed 0.042 lb/hr and 0.18 TPY. Be emissions shall not exceed 0.0027 lb/hr and 0.012 TPY. Visible particulate fugitive emissions shall

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		not exceed 0% opacity, as a six minute average, from the building housing emissions units P075, P082, P083, and P086. All Emissions Units: See b)(2)a., b)(2)b., and b)(2)c.
b.	OAC rule 3745-17-11(B)	See b)(2)d.
c.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20 % opacity, as a six minute average, except as provided by rule.
d.	40 CFR, Part 61, Subpart C (40 CFR 61.30-34) [In accordance with 40 CFR 61.30, this emissions unit is located at a beryllium processing facility and has the potential to emit beryllium.]	See B.2., B.3., and B.4. – Facility-Wide Terms and Conditions.

(2) Additional Terms and Conditions

a. Best available technology (BAT) has been determined to use of a baghouse and high efficiency filter in series. For emissions units P075, P082, P083, and P086, BAT also includes a 0% opacity limit for visible particulate fugitive emissions from the building that houses these emissions units, as a six minute average.

b. All particulate matter emissions are PM10.

c. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).

d. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log, as well as the date and time the daily check was performed. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. the total duration of any visible emission incident; and

c. any corrective actions taken to eliminate the visible emissions.

[OAC rule 3745-77-07(C)(1) and PTI #03-17251]

(2) 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 the egress points (i.e., building windows, doors, roof monitors, etc.) serving emissions units P075, P082, P083, and P086. The presence or absence of any visible emissions shall be noted in an operations log, as well as the date and time the daily check was performed. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. the total duration of any visible emission incident; and

c. any corrective actions taken to eliminate the visible emissions.

[OAC rule 3745-77-07(C)(1) and PTI 03-17251]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the stack serving emissions units P075, P082, P083, and P086;

b. all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving emissions units P075, P082, P083, and P086; and

c. describe any corrective actions taken to eliminate the visible particulate emissions.

These reports shall be submitted to the appropriate Ohio EPA district office or local field office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[OAC rule 3745-77-07(C)(1) and PTI 03-17251]

f) Testing Requirements

(1) The permittee shall conduct, or have conducted, emission testing for emissions units P075 and P082, simultaneously, in accordance with the following requirements:

a. The emissions testing shall be conducted approximately 2.5 years after the issuance of this permit, unless otherwise approved by the Ohio EPA, Northwest District Office.

b. The emissions testing shall be conducted to demonstrate compliance with the following limits:

   i. the mass emission limitation of 0.49 lb PM10/hr (P075 and P082); and

   ii. the mass emission limitation of 0.002 lb Be/hr (P075 and P082).

c. The following test methods shall be employed to demonstrate compliance with the above emission limitations and verify emission factors:

   i. Methods 1 - 4 of 40 CFR Part 60, Appendix A;

   ii. for Be - Method 29 or 104 of 40 CFR Part 60, Appendix A;

   iii. for PM10 - Method 201/201a and 202 of 40 CFR Part 51, Appendix M.

   Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

f. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

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

[OAC rule 3745-77-07(C)(1) and PTI #03-17251]

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

a. Emission Limitations:

0.49 lb PM-10/hr, 2.15 tons PM10 /yr (for emissions units P075, P082 and P083, combined)

Applicable Compliance Method:

Compliance with the hourly PM-10 emissions limitation shall be demonstrated by the emissions testing requirements in section f)(1).

The annual limitation was established by multiplying 8760 hours/year and 1 ton/2000 lbs. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI 03-17251]

b. Emission Limitations:

0.002 lb Be/hr, 0.009 ton Be/yr (for emissions units P075, P082 and P083, combined).

Applicable Compliance Method:

Compliance with the hourly Be emissions limitation shall be demonstrated by the emissions testing requirements in section f)(1).

The annual limitation was established by multiplying 8760 hours/year and 1 ton/2000 lbs. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI 03-17251]

c. Emission Limitations:

Visible particulate fugitive emissions shall not exceed 0% opacity, as a six minute average, from the building housing emissions units P075, P082, P083, and P086.

Applicable Compliance Method:

If required, compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

[OAC rule 3745-77-07(C)(1) and PTI 03-17251]

d. Emission Limitations:

PM10 shall not exceed 0.042 lb/hr and 0.18 TPY (for emissions unit P086)

Applicable Compliance Method:

The hourly emission limitation was established from the worst case hourly emission rate, based on the recent stack test result of 0.042 lb PM-10/hr. The annual limitation was established by multiplying 8760 hours/year and 1 ton/2000 lbs. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

If required, the permittee shall demonstrate compliance with the lb/hr limitation by testing in accordance with Methods 201/201A and 202 of 40 CFR, Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

[OAC rule 3745-77-07(C)(1) and PTI 03-17251]

e. Emission Limitations:

Be emissions shall not exceed 0.0027 lb/hr and 0.012 TPY (for emissions unit P086).

Applicable Compliance Method:

The hourly emission limitation was established from the worst case hourly emission rate, based on the recent stack test result of 0.0027 lb Be/hr. The annual limitation was established by multiplying 8760 hours/year and 1 ton/2000 lbs. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

If required, the permittee shall demonstrate compliance with the hourly allowable Be limitation in accordance with Methods 1-4, and 29 or 104 of 40 CFR, Part 60, Appendix A.

[OAC rule 3745-77-07(C)(1) and PTI 03-17251]

f. Emission Limitations:

Visible PE shall not exceed 20 % opacity, as a six minute average, except as provided by rule.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with the methods and procedures specified in OAC rule 3745-17-03(B)(1).

[OAC rule 3745-77-07(C)(1) and PTI 03-17251]

g) Miscellaneous Requirements

(1) For the purposes of continuing to evaluate the operational practices/emissions from this facility, the permittee shall notify OEPA if the following circumstances occur relative to emissions units P075, P082 and/or P083:

a. of any emergency event where it is necessary to operate with a single particulate control device. This notification shall be included in, and in a format consistent with, the deviation report required by term and condition e)(1), and,

b. if two induction furnaces are proposed to be operated simultaneously. This notification shall include detailed information regarding the proposed operating scenario and startup dates.

[OAC rule 3745-77-07(C)(1) and PTI 03-17251]

31. Emissions Unit Group -Group H: P078, P087

EU ID	Operations, Property and/or Equipment Description
P078	Cold Rolling Mill No. 2
P087	Finish Building Vacuum

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI #03-17251, issued 07/03/2007)	<u>P078</u>: PM10 shall not exceed 0.20 lb/hr and 0.88 TPY. Be emissions shall not exceed 0.00024 lb/hr and 0.0011 TPY <u>P087</u>: PM10 shall not exceed 0.042 lb/hr and 0.18 TPY. Be emissions shall not exceed 0.0000087 lb/hr and 0.000038 TPY <u>Both Emissions Units</u>: See b)(2)a., b)(2)b., and b)(2)c.
b.	OAC rule 3745-17-11(B)	See b)(2)d.
c.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20 % opacity, as a six minute average, except as provided by rule.
d.	40 CFR, Part 61, Subpart C (40 CFR 61.30-34) [In accordance with 40 CFR 61.30, this emissions unit is located at a beryllium processing facility and has the potential to emit beryllium.]	See B.2., B.3., and B.4. – Facility-Wide Terms and Conditions.

(2) Additional Terms and Conditions

a. Best available technology (BAT) has been determined to use of a baghouse and high efficiency filter in series.

b. All particulate matter emissions are PM10.

c. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).

d. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log, as well as the date and time the daily check was performed. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. the total duration of any visible emission incident; and

c. any corrective actions taken to eliminate the visible emissions.

[OAC rule 3745-77-07(C)(1) and PTI #03-17251]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and

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

These reports shall be submitted to the appropriate Ohio EPA district office or local field office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[OAC rule 3745-77-07(C)(1) and PTI 03-17251]

f) Testing Requirements

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

a. Emission Limitations:

PM10 shall not exceed 0.20 lb/hr and 0.88 TPY (for emissions unit P078)

Applicable Compliance Method:

The hourly emission limitation was established from the worst case hourly emission rate, based on the recent stack test result of 0.20 lb PM-10/hr for the combined stack. The annual limitation was established by multiplying 8760 hours/year and 1 ton/2000 lbs. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

If required, the permittee shall demonstrate compliance with the lb/hr limitation by testing in accordance with Methods 201/201A and 202 of 40 CFR, Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

[OAC rule 3745-77-07(C)(1) and PTI 03-17251]

b. Emission Limitations:

Be emissions shall not exceed 0.00024 lb/hr and 0.0011 TPY (for emissions unit P078).

Applicable Compliance Method:

The hourly emission limitation was based on a company supplied emission factor. The annual limitation was established by multiplying 8760 hours/year and 1 ton/2000 lbs. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

If required, the permittee shall demonstrate compliance with the hourly allowable Be limitation in accordance with Methods 1-4, and 29 or 104 of 40 CFR, Part 60, Appendix A.

[OAC rule 3745-77-07(C)(1) and PTI 03-17251]

c. Emission Limitations:

PM10 shall not exceed 0.042 lb/hr and 0.18 TPY (for emissions unit P087)

Applicable Compliance Method:

The hourly emission limitation was established from the worst case hourly emission rate, based on the recent stack test result of 0.042 lb PM-10/hr of an identical source (P086). The annual limitation was established by multiplying 8760 hours/year and 1 ton/2000 lbs. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

If required, the permittee shall demonstrate compliance with the lb/hr limitation by testing in accordance with Methods 201/201A and 202 of 40 CFR, Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

[OAC rule 3745-77-07(C)(1) and PTI 03-17251]

d. Emission Limitations:

Be emissions shall not exceed 0.0000087 lb/hr and 0.000038 TPY (for emissions unit P087).

Applicable Compliance Method:

The hourly emission limitation was based on a company supplied emission factor. The annual limitation was established by multiplying 8760 hours/year and 1 ton/2000 lbs. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

If required, the permittee shall demonstrate compliance with the hourly allowable Be limitation in accordance with Methods 1-4, and 29 or 104 of 40 CFR, Part 60, Appendix A.

[OAC rule 3745-77-07(C)(1) and PTI 03-17251]

e. Emission Limitations:

Visible PE shall not exceed 20 % opacity, as a six minute average, except as provided by rule.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with the methods and procedures specified in OAC rule 3745-17-03(B)(1).

[OAC rule 3745-77-07(C)(1) and PTI 03-17251]

g) Miscellaneous Requirements

(1) None.

32. Emissions Unit Group -Group I: P077, P088

EU ID	Operations, Property and/or Equipment Description
P077	Hot Strip Mill
P088	Finish Building Slab Mill No.2

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI #03-17251, issued 07/03/2007)	P077: PM10 shall not exceed 1.27 lb/hr and 5.56 TPY. Be emissions shall not exceed 0.0032 lb/hr and 0.014 TPY. P088: PM10 shall not exceed 0.29 lb/hr and 1.27 TPY. Be emissions shall not exceed 0.0017 lb/hr and 0.0074 TPY. Both Emissions Units: See b)(2)a., b)(2)b., and b)(2)c.
b.	OAC rule 3745-17-11(B)	See b)(2)d.
c.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20 % opacity, as a six minute average, except as provided by rule.
d.	40 CFR, Part 64 – Compliance Assurance Monitoring (CAM)	See d)(1) through d)(3), and e)(1).
e.	40 CFR, Part 61, Subpart C (40 CFR 61.30-34) [In accordance with 40 CFR 61.30, this emissions unit is located at a	See B.2., B.3., and B.4. – Facility-Wide Terms and Conditions.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	beryllium processing facility and has the potential to emit beryllium.]	

(2) Additional Terms and Conditions

a. Best available technology (BAT) has been determined to use of a baghouse and high efficiency filter in series.

b. All particulate matter emissions are PM10.

c. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).

d. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A).

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log, as well as the date and time the daily check was performed. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. the total duration of any visible emission incident; and

c. any corrective actions taken to eliminate the visible emissions.

[OAC rule 3745-77-07(C)(1), 40 CFR Part 64, and PTI #03-17251]

(2) The CAM plan for this emissions unit has been developed for particulate emissions. The CAM performance indicator for the baghouse controlling this emissions unit is visible particulate emissions checks. When the visible particulate emissions checks show operation outside the normal and usual manner of operation, the permittee shall take corrective actions to restore operation of the emissions unit and/or its control equipment to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions, and shall comply with the reporting requirements specified in Section e) below. The emissions unit and control equipment shall be operated in accordance with the approved CAM Plan or any approved revision of the Plan. The baghouse shall not be configured to have bypass capability.

[OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

(3) If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance, the permittee shall promptly notify the appropriate Ohio EPA District Office or local air agency, and if necessary, submit a proposed modification to the Title V permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, re-establishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

[OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and

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

These reports shall be submitted to the appropriate Ohio EPA district office or local field office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[OAC rule 3745-77-07(C)(1), PTI #03-17251, and 40 CFR Part 64]

f) Testing Requirements

(1) The permittee shall conduct, or have conducted, emission testing for emissions unit P077, in accordance with the following requirements:

a. The emissions testing shall be conducted approximately 2.5 years after the issuance of this permit, unless otherwise approved by the Ohio EPA, Northwest District Office.

b. The emissions testing shall be conducted to demonstrate compliance with the following limits:

i. the mass emission limitation of 1.27 lb PM10/hr (P077); and

ii. the mass emission limitation of 0.0032 lb Be/hr (P077).

c. The following test methods shall be employed to demonstrate compliance with the above emission limitations and verify emission factors:

i. Methods 1 - 4 of 40 CFR Part 60, Appendix A;

ii. for Be - Method 29 or 104 of 40 CFR Part 60, Appendix A;

iii. for PM10 - Method 201/201a and 202 of 40 CFR Part 51, Appendix M.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

f. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

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

[OAC rule 3745-77-07(C)(1) and PTI #03-17251]

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

a. <u>Emission Limitations:</u>

PM10 shall not exceed 1.27 lb/hr and 5.56 TPY (for emissions unit P077)

<u>Applicable Compliance Method:</u>

Compliance with the hourly PM-10 emissions limitation shall be demonstrated by the emissions testing requirements in section f)(1).

The annual limitation was established by multiplying 8760 hours/year and 1 ton/2000 lbs. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI 03-17251]

b. Emission Limitations:

Be emissions shall not exceed 0.0032 lb/hr and 0.014 TPY (for emissions unit P077).

Applicable Compliance Method:

Compliance with the hourly Be emissions limitation shall be demonstrated by the emissions testing requirements in section f)(1).

The annual limitation was established by multiplying 8760 hours/year and 1 ton/2000 lbs. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI 03-17251]

c. Emission Limitations:

PM10 shall not exceed 0.29 lb/hr and 1.27 TPY (for emissions unit P088)

Applicable Compliance Method:

The hourly emission limitation was established from the three run average hourly emission rate, based on the recent stack test result of 0.25 lb PM-10/hr plus a 15% safety factor. The annual limitation was established by multiplying 8760 hours/year and 1 ton/2000 lbs. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

If required, the permittee shall demonstrate compliance with the lb/hr limitation by testing in accordance with Methods 201/201A and 202 of 40 CFR, Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

[OAC rule 3745-77-07(C)(1) and PTI 03-17251]

d. Emission Limitations:

Be emissions shall not exceed 0.0017 lb/hr and 0.0074 TPY (for emissions unit P088).

Applicable Compliance Method:

The hourly emission limitation was based on a company supplied emission factor. The annual limitation was established by multiplying 8760 hours/year and 1 ton/2000 lbs. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

If required, the permittee shall demonstrate compliance with the hourly allowable Be limitation in accordance with Methods 1-4, and 29 or 104 of 40 CFR, Part 60, Appendix A.

[OAC rule 3745-77-07(C)(1) and PTI 03-17251]

e. Emission Limitations:

Visible particulate emissions (PE) shall not exceed 20 % opacity, as a six minute average, except as provided by rule.

Applicable Compliance Method:

If required, compliance shall be determined through visible emissions observations performed in accordance with the methods and procedures specified in OAC rule 3745-17-03(B)(1).

[OAC rule 3745-77-07(C)(1) and PTI 03-17251]

g) Miscellaneous Requirements

(1) None.

33. Emissions Unit Group -Group J: P065, P066, P067

EU ID	Operations, Property and/or Equipment Description
P065	Induction Furnace No. 2
P066	Induction Furnace No. 3
P067	Induction Furnace No. 4

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) [(For P065 & P066, modification to PTI #03-02135, issued 03/31/2005), and (For P067, modification to PTI #03-00791, issued 03/31/2005)]	1.0 lb particulate emissions (PE)/hr, and 4.38 tons PE/yr, for each emissions unit individually.
b.	OAC rule 3745-17-11(B)	See b)(2)b.
c.	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
d.	40 CFR, Part 64 – Compliance Assurance Monitoring (CAM)	See b)(2)c., d)(1) through d)(7) and e)(1).
e.	40 CFR, Part 61, Subpart C (40 CFR 61.30-34) [In accordance with 40 CFR 61.30, this emissions unit is located at a beryllium processing facility and has the potential to emit beryllium.]	See B.2., B.3., and B.4. – Facility-Wide Terms and Conditions.

(2) Additional Terms and Conditions

a. Best Available Technology (BAT) control requirements for this emissions unit have been determined to be the use of a baghouse with a control efficiency of 99 %.

b. Emissions units P064, P065, P066 and P067 are subject to the "grouping" provisions of OAC rule 3745-17-11(A)(3). The combination of the individual emission limits established under OAC 3745-31-05(A)(3) of 1.0 lb PE/hr for each source, is less than the combined "grouping" limit established in accordance with OAC rule 3745-17-11(A)(3).

c. In accordance with the Director's Final Findings and Orders dated 03/24/2008, the permittee has installed three (3) TRIBO.d^{2TM} continuous particulate emission monitors downstream of three (3) secondary cartridge collectors located in the old cast shop, and an alarm transmission system at the permittee's facility. The permittee shall hereafter operate and maintain such monitors. The purpose of the TRIBO.d^{2TM} continuous particulate emission monitors shall be to early detect dust collector leaks or malfunctions. Process operators will be alarmed quickly of the non-routine conditions, which allows for timely investigation and troubleshooting.

The first TRIBO.d^{2TM} monitor has been installed downstream of the east secondary cartridge collector (C-32-1-2) associated with Alloy Induction Furnace #1 (emissions unit P064) and Alloy Induction Furnace #2 (emissions unit P065). The second TRIBO.d^{2TM} monitor has been installed downstream of the north secondary cartridge collector (C-32-2-2) associated with Alloy Induction Furnace #3 (emissions unit P066) and Alloy Induction Furnace #4 (emissions unit P067). The third TRIBO.d^{2TM} monitor has been installed downstream of the south secondary cartridge collector (C-32-4-3) associated with the Alloy Cast Shop Auxiliary Operations (emissions unit P011).

In addition to the local alarm at the graphic display recorder located in the old case shop, and an alarm signal has been installed, that transmits a signal to the facility's Simplex centralized alarm monitoring system. The Simplex system provides audible alarm notification and test messaging to the central security control center, which is staffed 24 hours a day. The system has been set to generate a low-level alarm and a high-level alarm based on the emissions level relative to the baseline. The system (TRIBO.d^{2TM} monitor and the alarm transmission units) shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals.

The permittee has developed and shall maintain a written quality assurance plan to assess and document the continuing functioning and accuracy of the TRIBO.d^{2TM} monitor and the alarm transmission units. The permittee shall follow the recommendations in the U.S. EPA's document number EPA-454/R-98-015 (Fabric Filter Bag Leak Detection Guidance) in developing and maintaining the quality assurance plan for the TRIBO.d^{2TM} monitor.

Notwithstanding the reference to the Director's Final Findings and Orders dated 03/24/2008 contained in this permit term and condition, Materion may request and obtain a termination of the Director's Final Findings and Orders according to its terms.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall document all times the control devices serving these emissions units were not employed when the emissions units were in operation.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(2) 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. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. the total duration of any visible emission incident; and

c. any corrective actions taken to eliminate the visible emissions.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(3) The QA plan for the TRIBO.d^{2TM} continuous particulate emission monitoring system includes the following elements:

a. Initial and periodic adjustment of the continuous particulate emission monitoring system including how the alarm set-point will be established;

b. Operation of the continuous particulate emission monitoring system including quality assurance procedures;

c. How the continuous particulate emission monitoring system will be maintained including a routine maintenance schedule and spare parts inventory list; and

d. How the continuous particulate emission monitoring system output shall be recorded and stored.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(4) The initial adjustment of the system shall, at a minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points and the alarm delay time (if applicable).

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(5) Following initial adjustment, the owner or operator shall not adjust the averaging period, alarm set point, or alarm delay time without approval from the Ohio EPA NWDO, except as follows:

a. Once per quarter, the owner or operator may adjust the sensitivity of the continuous particulate emission monitoring system to account for seasonal effects including temperature and humidity according to the procedures identified in the site-specific QA plan.

b. If opacities greater than zero percent are observed over four consecutive 15-second observations during the daily opacity observations required and the alarm on the continuous particulate emission monitoring system does not sound, the owner or operator shall lower the alarm set point on the continuous particulate emission monitoring system to a point where the alarm would have sounded during the period when the opacity observations were made.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(6) The CAM plan for this emissions unit has been developed for particulate emissions. The CAM performance indicator for the baghouse controlling this emissions unit is the TRIBO.d^{2TM} continuous particulate emission monitoring system. When the TRIBO.d^{2TM} continuous particulate emission monitoring alarm indicates operation outside the indicator range, the permittee shall take corrective actions to restore operation of the emissions unit and/or its control equipment to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions, and shall comply with the reporting requirements specified in Section e) below. The emissions unit and control equipment shall be operated in accordance with the QA Plan and the approved CAM Plan or any approved revisions of these Plans. The baghouse shall not be configured to have bypass capability.

[OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

(7) If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance, the permittee shall promptly notify the appropriate Ohio EPA District Office or local air agency, and if necessary, submit a proposed modification to the Title V permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, re-establishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

[OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

e) Reporting Requirements

(1) The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

a. each period of time when the TRIBO.d^{2TM} continuous particulate emission monitoring system for the primary baghouse (C-32-1-1) and/or the secondary baghouse (C-32-1-2) was (were) outside of the acceptable range during operation of emissions unit P065;

b. each period of time when the TRIBO.d^{2TM} continuous particulate emission monitoring system for the primary baghouse (C-32-2-1) and/or the secondary baghouse (C-32-2-2) was (were) outside of the acceptable range during operation of emissions units P066 and/or P067;

c. an identification of each incident of deviation described in e)(1)a. and/or e)(1)b. where a prompt investigation was not conducted;

d. an identification of each incident of deviation described in e)(1)a. and/or e)(1)b. where prompt corrective action was determined to be necessary and was not taken; and

e. an identification of each incident of deviation described in e)(1)a. and/or e)(1)b. where proper records were not maintained for the investigation and/or the corrective action.

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.

[OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

(2) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and

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

These reports shall be submitted to the appropriate Ohio EPA district office or local field office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) The permittee shall conduct, or have conducted, emission testing for emissions units P066 and P067, in accordance with the following requirements:

a. The emissions testing shall be conducted approximately 2.5 years after the issuance of this permit, unless otherwise approved by the Ohio EPA, Northwest District Office.

b. The emissions testing shall be conducted to demonstrate compliance with the following limits:

i. the mass emission limitation of 1.0 lb PE/hr, for each emissions unit individually.

c. The following test methods shall be employed to demonstrate compliance with the above emission limitations and verify emission factors:

i. Methods 1 - 4 of 40 CFR Part 60, Appendix A;

ii. for PE - Method 5 of 40 CFR Part 60, Appendix A.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

d. The tests shall be conducted while these emissions units are operating at their maximum capacity, unless otherwise specified or approved by the Ohio EPA, Division of Air Pollution Control. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Division of Air Pollution Control. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the times and dates of the tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's air agency's refusal to accept the results of the emissions tests.

e. Personnel from the Ohio EPA District Office's air agency shall be permitted to witness the test, 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 unit and/or the performance of the control equipment. A comprehensive written report on the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Division of Air Pollution Control within 30 days following completion of the tests.

[OAC rule 3745-77-07(C)(1), PTI 03-00791, and PTI 03-02135]

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

a. <u>Emission Limitations:</u>

1.0 lb PE/hr; 4.38 tons PE/year, for each emissions unit individually

<u>Applicable Compliance Method:</u>

Compliance with the hourly PE emissions limitation shall be demonstrated by the emissions testing requirements in section f)(1), for emissions units P066 and P067.*

For emissions unit P065, compliance with the hourly PE limitation may be determined by multiplying the uncontrolled mass rate of PE, from the emissions unit (100 lbs PE/hr), by a baghouse control factor of 99% (1.0 – 0.99). If

required, the permittee shall demonstrate compliance with the hourly allowable PE limitation pursuant to Methods 1-5 of 40 CFR, Part 60, Appendix A.

The annual limitation was developed by multiplying the hourly limitation by 8760, and then dividing by 2,000. Therefore, provided compliance with the hourly PE limitation is maintained, compliance with the annual PE limitation shall also be demonstrated.

* The baghouse control efficiency is 99%.

[OAC rule 3745-77-07(C)(1), PTI 03-00791, and PTI 03-02135]

b. Emission Limitations:

Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance pursuant to the methods specified in OAC rule 3745-17-03(B)(1).

[OAC rule 3745-77-07(C)(1), PTI 03-00791, and PTI 03-02135]

g) Miscellaneous Requirements

(1) None.

34. Emissions Unit Group -Group K: P080, P081

EU ID	Operations, Property and/or Equipment Description
P080	Strip Annealing/Pickling
P081	Strip Finish Pickling

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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI #03-17251, issued 07/03/2007)	Particulate matter equal to or less than 10 microns in size (PM10) shall not exceed 0.12 lb/hr and 0.53 tons per year (TPY) (for emissions units P080 and P081, combined). See b)(2)a., b)(2)b., and b)(2)c.
b.	OAC rule 3745-17-11(B)	See b)(2)d.
c.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20 % opacity, as a six minute average, except as provided by rule.

(2) Additional Terms and Conditions

a. Best available technology (BAT) control requirements for each emissions unit has been determined to be the use of a caustic scrubber, and a shared acid scrubber. All of the scrubbers shall meet a minimum control efficiency of 80% for PM10.

b. All particulate matter emissions are PM10.

c. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).

d. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber, and the water flow rate while the emissions units are in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

[OAC rule 3745-77-07(C)(1) and PTI 03-17251]

(2) The permittee shall collect and record the following information each day:

a. the static pressure drop across the scrubber, in inches of water, on a once-per-shift basis;

b. the scrubber water flow rate, in gallons per minute (gpm), on a once-per-shift basis; and

c. the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

[OAC rule 3745-77-07(C)(1) and PTI 03-17251]

(3) Whenever the monitored values for the pressure drop, and water flow rate deviate from the value/ranges specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

[OAC rule 3745-77-07(C)(1) and PTI 03-17251]

(4) In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable value/ranges specified below, 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 description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the pressure drop and/or scrubber water flow rate immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

[OAC rule 3745-77-07(C)(1) and PTI 03-17251]

(5) The following represent acceptable operating parameters for each scrubber:

a. The pressure drop across the caustic scrubber shall be maintained between the range of 0.5 and 3.5 inches of water, and 1.0 - 4.5 inches of water for the acid scrubber, at all times while the emissions unit is in operation, or as established during the most recent performance test that demonstrated the emissions unit was in compliance.

b. The caustic scrubber water flow rate shall be maintained at a value of not less than 20 gpm, and not less than 70 gpm for the acid scrubber, at all times while the emissions units are in operation, or as established during the most recent performance test that demonstrated the emission units were in compliance.

[OAC rule 3745-77-07(C)(1) and PTI 03-17251]

(6) These value/ranges are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the value/ranges based upon information obtained during future emission tests that demonstrate compliance with the allowable emission rates specified in the permit for this emissions unit. In addition, approved revisions to the value/ranges will not constitute a relaxation of the monitoring requirements requiring a modification of this permit but may be incorporated into the facility's Title V permit by means of a minor modification.

[OAC rule 3745-77-07(C)(1) and PTI 03-17251]

e) Reporting Requirements

(1) The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment (scrubber) during the operation of this emissions unit:

a. each period of time when the pressure drop across the caustic scrubber was outside of the acceptable range;

b. each period of time when the pressure drop across the acid scrubber was outside of the acceptable range;

c. each period of time when the caustic scrubber water flow rate deviated from the acceptable value;

d. each period of time when the acid scrubber water flow rate deviated from the acceptable value;

e. an identification of each incident of deviation described in e)(1)a., e)(1)b., e)(1)c., or e)(1)d. where prompt corrective action, that would bring the pressure drop and/or water flow rate into compliance with the acceptable range/value, was determined to be necessary and was not taken; and

f. an identification of each incident of deviation described in e)(1)a., e)(1)b., e)(1)c., or e)(1)d. where proper records were not maintained for the investigation and/or the corrective action.

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.

[OAC rule 3745-77-07(C)(1) and PTI 03-17251]

f) Testing Requirements

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

a. Emission Limitations:

0.12 lb PM 10/hr and 0.53 tons PM10 per year (TPY) (for emissions units P080 and P081, combined)

Applicable Compliance Method:

The hourly emission limitation was established from the worst case hourly emission rate, based on the recent stack test result of 0.12 lb PM-10/hr for the combined stacks. The annual limitation was established by multiplying 8760 hours/year and 1 ton/2000 lbs. Therefore, provided compliance is demonstrated with the hourly emission limitation, compliance with the annual limitation shall also be demonstrated.

If required, the permittee shall demonstrate compliance with the lb/hr limitation by testing in accordance with Methods 201/201A and 202 of 40 CFR, Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

[OAC rule 3745-77-07(C)(1) and PTI 03-17251]

b. Emission Limitations:

Visible PE shall not exceed 20 % opacity, as a six minute average, except as provided by rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance pursuant to the methods specified in OAC rule 3745-17-03(B)(1).

[OAC rule 3745-77-07(C)(1) and PTI 03-17251]

g) Miscellaneous Requirements

(1) None.

35. Emissions Unit Group -Group L: P114, P115, P116, P117, P118, P122

EU ID	Operations, Property and/or Equipment Description
P114	Decomposition Furnace No. 2
P115	Decomposition Furnace No. 3
P116	Reduction Furnace No. 1
P117	Reduction Furnace No. 2
P118	Wet Plant
P122	Decomposition Furnace No. 1

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

(1) b)(1)h., d)(6) through d)(9) and e)(2)

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI #P0117540, issued 09/18/2014)	<u>The following limitations apply to emission units P114, P115, P116, P117, P118, and P122, combined:</u> Combined emissions of Be shall not exceed 0.0084 lb/hr and 0.0368 ton/yr. Combined emissions of Fluoride compounds shall not exceed 0.5 lb/hr and 2.2 ton/yr. Combined emissions of HCN shall not exceed 1.0 lb/hr and 4.38 ton/yr. Combined emissions of PM10 shall not exceed 0.426 lb/hr and 1.87 ton/yr. Visible particulate emissions (PE) shall not exceed 5% opacity, as a six-minute average, from the wet electrostatic precipitator serving this emissions unit. See b)(2)a., b)(2)b. and c)(1)

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	See b)(2)c.
c.	OAC rule 3745-31-05(A)(3) as effective 12/01/06	See b)(2)d.
d.	OAC rule 3745-17-11(B)	See b)(2)e.
e.	OAC rule 3745-17-07(A)	See b)(2)f.
f.	40 CFR 61.32(b) [In accordance with 40 CFR 61.30, this emissions unit is located at a beryllium processing facility and has the potential to emit beryllium.]	See term2. of sectionB - FACILITY SPECIFIC TERMS AND CONDITIONS
g.	40 CFR Part 63 Subpart GGGGGG	See b)(2)g. and b)(2)h.
h.	ORC 3704.03(F) OAC rule 3745-114-01	See d)(6) through d)(9) and e)(2)

(2) Additional Terms and Conditions

a. The combined emission limitations include emissions from the three decomposition furnaces (P114, P115, and P122), two reduction furnaces (P116 and P117), and the concentrated fluoride operations of P118. These sources are all controlled by the same wet electrostatic precipitator (ESP). It should be noted that HCN is only emitted from emission units P114, P115, and P122.

b. This permit establishes the following federally enforceable emission limitations for emissions units P114, P115, P116, P117, P118, and P122, combined, for the purpose of limiting potential to emit (PTE) to avoid Prevention of Significant Deterioration (PSD) requirements. The federally enforceable emission limitations are based on the operational restriction contained in c)(1) which require control equipment:

i. 0.426 lb PM10/hr and 1.87 ton PM10/yr;

ii. 0.0084 lb Be/hr and 0.0368 ton Be/yr;

iii. 0.5 lb Fluoride compounds/hr and 2.2 tons Fluoride compounds/yr;

iv. 1.0 lb HCN/hr and 4.38 tons HCN/yr; and

v. Visible particulate emissions (PE) shall not exceed 5% opacity, as a six-minute average from the wet electrostatic precipitator serving this emissions unit.

All emissions of particulate matter from the wet ESP are PM10 and include Be and Fluoride compounds.

c. The requirements of this rule are equivalent to the requirements established pursuant to OAC rule 3745-31-05(D); therefore, the permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit.

On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 Changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, the requirements of 3745-31-05(A)(3) as effective 12-1-06 will no longer apply.

It should be noted that the emission limitations and control requirements established pursuant to OAC rule 3745-31-05(D) will remain applicable after the above SIP revisions are approved by U.S. EPA.

d. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3)(a), as effective December 1, 2006, do not apply to the PM_{10} emissions from this air contaminant source since the controlled potential to emit (PTE) is less than 10 tons per year taking into consideration federally enforceable requirements established under OAC rule 3745-31-05(D).

i. The combined potential to emit for Be, Fluoride compounds, and PM10 from emission units P114, P115, P116, P117, P122, and the concentrated fluoride operations of P118 is represented by the combined ton per year limitation established under OAC rule 3745-31-05(D). The combined ton per year emission limitations were established using the following maximum uncontrolled emission rates (from process recovery scrubbers) and the respective pollutant control efficiency:

(a) For each individual decomposition furnace (P114, P115, and P122):

(i) Be - 0.00255 lb/hr, 0.011 ton/yr;

(ii) Fluoride compounds – 0.0088 lb/hr, 0.0385 ton/yr; and

(iii) PM10 – 0.6 lb/hr, 2.63 tons/yr.

(b) For reduction furnaces P116 and P117 combined:

(i) Be – 0.0345 lb/hr, 0.15 ton/yr;

(ii) Fluoride compounds – 0.033 lb/hr, 0.14 ton/yr; and

(iii) PM10 – 0.27 lb/hr, 1.18 tons/yr.

(c) For the concentrated fluoride operations of P118:

(i) Be – 0.000008 lb/hr, 0.000035 ton/yr;

(ii) Fluoride compounds – 0.007 lb/hr, 0.031 ton/yr; and

(iii) PM10 – 0.06 lb/hr, 0.263 ton/yr.

e. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D). This determination is based on all emissions of particulate matter being PM10 and the established PM10 limitation being more restrictive that particulate emissions limitation established by OAC rule 3745-17-11(B). Particulate emissions (PE) measured using Method 5 of 40 CFR Part 60, Appendix A would be equivalent to the filterable particulates measured using Method 201/201A of 40 CFR, Part 51, Appendix M. A PM10 limitation is more stringent due to the inclusion of condensable particulate matter measured by Method 202 of 40 CFR, Part 51, Appendix M.

f. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D).

g. In accordance with 40 CFR 63.11165 the standards and compliance requirements for Primary Beryllium Production Facilities is compliance with the requirements of 40 CFR 61.32 through 40 CFR 61.34 of the National Emission Standards for Beryllium (See term 2 of section B - FACILITY-WIDE TERMS AND CONDITIONS).

h. The permittee shall comply with "General Provision" requirements as indicated in 40 CFR 63.11166.

c) Operational Restrictions

(1) The following operational restriction has been included in this permit for the purpose of establishing federally enforceable requirements which limit PTE [see b)(2)a.]:

a. use of a wet ESP to control emissions from P114, P115, P116, P117, P122, and the concentrated fluoride operations of P118.

b. the wet ESP shall achieve the following control efficiencies and an associated 5% opacity, as a six-minute average:

i. 80% control efficiency for Be;

ii. 80% control efficiency for fluoride compounds

iii. 95% control efficiency for HCN; and

iv. 80% control efficiency for PM10**

**All particulate matter emissions are PM10 and include Be and Fluoride compounds.

[OAC rule 3745-77-07(C)(1) and PTI #P0117540]

d) Monitoring and/or Recordkeeping Requirements

(1) The acceptable secondary voltage and current for the field of the wet ESP shall not be less than **29** kilovolts and **130** milliamps, respectively as a one-minute average, except as for times of start-up, which includes normal wet ESP cleaning cycles. During start-up, including normal wet ESP cleaning cycles, the acceptable secondary voltage and current for each field of the wet ESP shall not be less than **29** kilovolts for more than 3 minutes and not less than **130** milliamps for more than ten minutes. Sensors shall be installed to continuously measure and record the secondary voltage and secondary amperage to the precipitator collection plates.

[OAC rule 3745-77-07(C)(1) and PTI #P0117540]

(2) The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the secondary voltage, in kilovolts, and the current, in milliamps, for each of the fields within the wet ESP during operation of this emissions unit. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the voltage and current within a field in the wet ESP on a continuous basis.

[OAC rule 3745-77-07(C)(1) and PTI #P0117540]

(3) Whenever the monitored value for the voltage and/or current with a field in the wet ESP falls below the acceptable value, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

[OAC rule 3745-77-07(C)(1) and PTI #P0117540]

(4) In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable value, 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 description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

[OAC rule 3745-77-07(C)(1) and PTI #P0117540]

(5) These ranges are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the ranges 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 ranges will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

[OAC rule 3745-77-07(C)(1) and PTI #P0117540]

(6) The permit-to-install (PTI) application for emissions units P114 through P118, and P122, was evaluated based on the actual materials and the design parameters of the emissions units' exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

   i. threshold limit value (TLV) from the "American Conference of Governmental Industrial Hygienists" (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or

   ii. STEL (short term exposure limit) or the ceiling value from the "American Conference of Governmental Industrial Hygienists" (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).

c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "**X**" hours per day and "**Y**" days per week, from that of 8 hours per day and 5 days per week. The resulting

calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

TLV/10 x 8/X x 5/Y = 4 TLV/XY = MAGLC

d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Toxic Contaminant: Hydrogen Cyanide

TLV (mg/m3): 3.83

Maximum Hourly Emission Rate (lbs/hr): 1.0

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2.279

MAGLC (ug/m3): 91.0

The permittee, has demonstrated that emissions of hydrogen cyanide, from emissions units P114 through P118, and P122, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

e. Toxic Contaminant: Hydrogen Fluoride

TLV (mg/m3): 0.41

Maximum Hourly Emission Rate (lbs/hr): 0.5

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.14

MAGLC (ug/m3): 9.76

The permittee, has demonstrated that emissions of hydrogen fluoride, from emissions units P114 through P118, and P122, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

[OAC rule 3745-77-07(C)(1) and PTI #P0117540]

(7) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour "maximum ground-level concentration", the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:

a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and

c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTI prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

[OAC rule 3745-77-07(C)(1) and PTI #P0117540]

(8) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):

a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);

b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);

c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and

d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

[OAC rule 3745-77-07(C)(1) and PTI #P0117540]

(9) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

[OAC rule 3745-77-07(C)(1) and PTI #P0117540]

e) Reporting Requirements

(1) The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

a. for each field of the wet ESP, each period of time when the field was not operating within the acceptable ranges for voltage and current;

b. an identification of each incident of deviation described in e)(1)a. where a prompt investigation was not conducted;

c. an identification of each incident of deviation described in e)(1)a. where prompt corrective action was determined to be necessary and was not taken; and

d. an identification of each incident of deviation described in e)(1)a. where proper records were not maintained for the investigation and/or the corrective action.

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.

[OAC rule 3745-77-07(C)(1) and PTI #P0117540]

(2) The permittee shall include any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration, in the quarterly deviation (excursion) reports. If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect.

[OAC rule 3745-77-07(C)(1) and PTI #P0117540]

f) Testing Requirements

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

a. Emission Limitations:
Combined emission limitations for emission units P122, P114 – P117, and the concentrated fluoride operations of P118:

0.0084 lb Be/hr, 0.0368 ton/yr
0.5 lb Fluoride compounds/hr, 2.2 tons/yr
1.0 lb HCN/hr, 4.38 tons/yr
0.426 lb PM10/hr, 1.87 ton/yr

Applicable Compliance Method:
Compliance with the combined lb/hr emission limitations was demonstrated by emissions testing,which was completed on February 7, and 9, 2012. If required, the permittee shall demonstrate compliance with the lb/hr emission limitations by testing in accordance with Methods 1 - 4 of 40 CFR Part 60, Appendix A and the following: Method 29 or 104 of 40 CFR Part 60, Appendix A for Be; Method 13 of 40 CFR Part 60, Appendix A for Fluoride; Other Test Method 29 for HCN; and Method 201/201A and 202 of 40 CFR Part 51, Appendix M for PM10. Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

The combined ton/year limitations were established by multiplying the pounds per hour limitations by 8760 hours per year, and applying a conversion factor of 1 ton/2000 lbs. Therefore, provided compliance is shown with the hourly limitations, compliance with the annual limitations shall be demonstrated.

b. Emission Limitation:
Visible PE shall not exceed 5% opacity, as a six-minute average from the wet ESP stack serving this emissions unit.

Applicable Compliance Method:
If required, compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

[OAC rule 3745-77-07(C)(1) and PTI #P0117540]

g) Miscellaneous Requirements

(1) None.

36. Emissions Unit Group- Group M:P120, P124

EU ID	Operations, Property and/or Equipment Description
P120	Furnace Rebuild Operation - Pebble Plant
P124	Pebbles Plant Vacuum Cleaning 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 operations(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. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI #P0109519, issued 04/03/2012)	<u>The following limitations apply to emission units P120 and P124, combined [see b)(2)d.]:</u> Combined emissions of particulate matter equal to or less than 10 microns in size (PM10) shall not exceed 0.137 lb/hr and 0.60 ton/yr. Combined emissions of beryllium (Be) shall not exceed 0.014 lb/hr and 0.06 ton/yr. Visible particulate emissions (PE) shall not exceed 5% opacity, as a six-minute average. See b)(2)a. and c)(1)
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	See b)(2)b.
c.	OAC rule 3745-31-05(A)(3), as effective 12/01/06	See b)(2)c.
d.	OAC rule 3745-17-11(B)	See b)(2)d.
e.	OAC rule 3745-17-07(A)	See b)(2)e.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
f.	40 CFR, Part 61, Subpart C (40 CFR 61.30-34) [In accordance with 40 CFR 61.30, this emissions unit is located at a beryllium processing facility and has the potential to emit beryllium.]	See B.2., B.3., and B.4. – Facility-Wide Terms and Conditions.

(2) Additional Terms and Conditions

a. Permit to Install #P0109519 establishes the following federally enforceable emission limitations for the purpose of limiting potential to emit (PTE) to avoid Prevention of Significant Deterioration (PSD) requirements. The federally enforceable emission limitations are based on the operational restriction contained in c)(1) which require control equipment:

i. 0.137 lb PM10/hr and 0.60 ton/yr;

ii. 0.014 lb Be/hr and 0.06 ton/yr; and

iii. Visible particulate emissions shall not exceed 5% opacity, as a six-minute average.

All emissions of particulate matter from the baghouse stack are PM10 and include Be.

The combined emission limitations include emissions from these two particulate and beryllium sources (P120 and P124). These sources are controlled by the same baghouse.

b. The requirements of this rule are equivalent to the requirements established pursuant to OAC rule 3745-31-05(D); therefore, the permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit.

On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 Changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, the requirements of 3745-31-05(A)(3) as effective 12-1-06 will no longer apply.

It should be noted that the emission limitations and control requirements established pursuant to OAC rule 3745-31-05(D) will remain applicable after the above SIP revisions are approved by U.S. EPA.

c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3)(a), as effective December 1, 2006, do not apply to the PM_{10} emissions from this air contaminant source since the controlled potential to emit (PTE) is less than 10 tons per year taking into consideration federally enforceable requirements established under OAC rule 3745-31-05(D).

d. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D). This determination is based on all emissions of particulate matter being PM10 and the established PM10 limitation being more restrictive that particulate emissions limitation established by OAC rule 3745-17-11(B). Particulate emissions (PE) measured using Method 5 of 40 CFR Part 60, Appendix A would be equivalent to the filterable particulates measured using Method 201/201A of 40 CFR, Part 51, Appendix M. A PM10 limitation is more stringent due to the inclusion of condensable particulate matter measured by Method 202 of 40 CFR, Part 51, Appendix M.

e. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D).

c) Operational Restrictions

(1) The following operational restriction has been included in this permit for the purpose of establishing federally enforceable requirements which limit PTE [see b)(2)a.]:

a. All particulates from these emissions units (P120 and P124) shall be vented to a common baghouse (S-2303) capable of achieving a maximum outlet concentration of 0.001 grains/dscf of PM10; and

b. The pebbles plant vacuum cleaning system (P124) shall employ a vacuum cyclone (S-3100) and baghouse (S-3200), in series, prior to the common baghouse (S-2303).

[OAC rule 3745-77-07(A)(1) and PTI P0109519]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall document all times the control devices serving these emissions units were not employed when the emissions units were in operation.

[OAC rule 3745-77-07(C)(1) and PTI P0109519]

(2) 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, as well as the date and time the daily check was performed. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. the total duration of any visible emission incident; and

c. any corrective actions taken to eliminate the visible emissions.

[OAC rule 3745-77-07(C)(1) and PTI P0109519]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and

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

These reports shall be submitted to the appropriate Ohio EPA district office or local field office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[OAC rule 3745-77-07(C)(1) and PTI #P0109519]

f) Testing Requirements

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

a. <u>Emission Limitations</u>:
0.001 gr PM10/dscf

<u>Applicable Compliance Method:</u>
Compliance with the outlet grain loading emissions limitation was demonstrated by emissions testing, which was completed on January 17, and 18, 2012. If required, the permittee shall demonstrate compliance with the gr PM10/dscf limitation by testing in accordance with Methods 201/201A and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

[OAC rule 3745-77-07(C)(1) and PTI P0109519]

b. <u>Emission Limitations</u>:
0.137 lb PM10/hr and 0.60 ton PM10/yr (for P120 and P124, combined)

Applicable Compliance Method:
The lb/hr limitation was established by multiplying the outlet grain loading by a maximum volumetric air flow of 16,000 acfm, applying the appropriate conversion factors of 7000 grains/lb, 1 dscf/1acfm, and 60 minutes/hr.

The ton/yr limitation was established by multiplying the outlet grain loading by a maximum volumetric air flow of 16,000 acfm, applying the appropriate conversion factors of 7000 grains/lb, 1 dscf/1acfm, and 60 minutes/hr, 8760 hrs/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the outlet grain loading limitation, compliance with the hourly and annual limitations shall be also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI P0109519]

c. Emission Limitations:
0.014 lb Be/hr and 0.06 ton Be/yr (for P120 and P124, combined)

Applicable Compliance Method:
Compliance with the lb/hr limitation was demonstrated by emissions testing, which was completed on January 17, and 18, 2012. If required, the permittee shall demonstrate compliance with the lb Be/hr emission limitation by testing in accordance with Methods 1 - 4 and 29 of 40 CFR Part 60, Appendix A..

The ton/year limitation was established by multiplying the pounds per hour limitation by 8760 hours per year, and applying a conversion factor of 1 ton/2000 lbs. Therefore, provided compliance is shown with the hourly, compliance with the annual limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI P0109519]

d. Emission Limitations:
Visible PE shall not exceed 5% opacity, as a six-minute average from the stack serving both of these emission units.

Applicable Compliance Method:
If required, compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

[OAC rule 3745-77-07(C)(1) and PTI P0109519]

g) Miscellaneous Requirements

(1) None.

37. Emissions Unit Group –Group N:P128, P129

EU ID	Operations, Property and/or Equipment Description
P128	Alloy Scrap Reclamation (formerly TMP167565)
P129	Alloy Scrap Reclamation Vacuum System (formerly TMP167570)

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

(1) b)(1)h., d)(5) through d)(8), and e)(2).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI #P0110329, issued 08/04/2012)	<u>The following limitations apply to emission units P128 and P129 combined [see b)(2)d.]:</u> Combined emissions of particulate matter equal to or less than 10 microns in size (PM10) shall not exceed 0.6 lb/hr and 2.63 ton/yr. Combined emissions of beryllium (Be) shall not exceed 0.03 lb/hr and 0.13 ton/yr. Visible particulate emissions (PE) shall not exceed 5% opacity, as a six-minute average. See b)(2)a. and c)(1)
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	See b)(2)b.
c.	OAC rule 3745-31-05(A)(3), as effective 12/01/06	See b)(2)c.
d.	OAC rule 3745-17-11(B)	See b)(2)d.
e.	OAC rule 3745-17-07(A)	See b)(2)e.
f.	40 CFR, Part 64 – Compliance Assurance Monitoring (CAM)	See b)(2)f., d)(1) through d)(4), and e)(1)
g.	40 CFR 61.32(b)	See Term 2 of Section B – FACILITY

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		WIDE TERMS AND CONDITIONS
h.	OAC rule 3745-114-01 ORC 3704.03(F)	See d)(5) through d)(8) and e)(2).

(2) Additional Terms and Conditions

a. This permit establishes the following federally enforceable emission limitations for the purpose of limiting potential to emit (PTE) to avoid Prevention of Significant Deterioration (PSD) requirements. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1) which require control equipment:

i. 0.6 lb PM10/hr and 2.63 ton/yr;

ii. 0.03 lb Be/hr and 0.13 ton/yr; and

iii. Visible particulate emissions shall not exceed 5% opacity, as a six-minute average.

All emissions of particulate matter from the baghouse stack are PM10 and include Be.

The combined emission limitations include emissions from P128 and P129, which are particulate and beryllium sources controlled by a primary baghouse (C-32-3-2) and secondary cartridge collector (C-32-3-1), in series. Additional control devices are also employed for emissions from P129 prior to baghouse C-32-3-2, in accordance with c)(1)b.

b. The requirements of this rule are equivalent to the requirements established pursuant to OAC rule 3745-31-05(D); therefore, the permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit.

On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 Changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, the requirements of 3745-31-05(A)(3) as effective 12-1-06 will no longer apply.

It should be noted that the emission limitations and control requirements established pursuant to OAC rule 3745-31-05(D) will remain applicable after the above SIP revisions are approved by U.S. EPA.

c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3)(a), as effective December 1, 2006, do not apply to the PM_{10} emissions from this air contaminant source since the controlled potential to emit (PTE) is less than 10 tons per year taking into consideration federally enforceable requirements established under OAC rule 3745-31-05(D).

d. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D). This determination is based on all emissions of particulate matter being PM10 and the established PM10 limitation being more restrictive than the particulate emissions limitation established by OAC rule 3745-17-11(B). Particulate emissions (PE) measured using Method 5 of 40 CFR Part 60, Appendix A would be equivalent to the filterable particulates measured using Method 201/201A of 40 CFR, Part 51, Appendix M. A PM10 limitation is more stringent due to the inclusion of condensable particulate matter measured by Method 202 of 40 CFR, Part 51, Appendix M.

e. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D).

f. This rule applies to emissions unit P128 only. Although the CAM requirements are found in d)(1) through d)(4), and e)(1), the monitoring and recordkeeping requirements in d)(1) and d)(2), and the reporting requirement in e)(1), apply to both emissions units.

c) Operational Restrictions

(1) The following operational restrictions have been included in this permit for the purpose of establishing federally enforceable requirements which limit PTE [see b)(2)a.]:

a. These emissions units (P128 and P129) shall be vented to a primary baghouse (C-32-3-2) and secondary cartridge collector (C-32-3-1), in series, capable of achieving a maximum outlet concentration of 0.002 grains/dscf of PM10; and

b. The alloy scrap reclamation vacuum system (P129) shall employ a vacuum cyclone (C-32-3-3) and vacuum filter (C-32-3-4), in series, prior to the primary baghouse (C-32-3-2) and secondary cartridge filter (C-32-3-1).

[OAC rule 3745-77-07(A)(1) and PTI #P0110329]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall document all times the control devices serving these emissions units were not employed when the emissions units were in operation.

[OAC rule 3745-77-07(C)(1) and PTI #P0110329]

(2) 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. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. the total duration of any visible emission incident; and

c. any corrective actions taken to eliminate the visible emissions.

[OAC rule 3745-77-07(C)(1), PTI #P0110329 and 40 CFR Part 64]

(3) The CAM plan for this emissions unit has been developed for particulate emissions. The CAM performance indicator for the baghouse controlling this emissions unit is visible particulate emissions checks. When the visible particulate emissions checks show operation outside the normal and usual manner of operation, the permittee shall take corrective actions to restore operation of the emissions unit and/or its control equipment to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions, and shall comply with the reporting requirements specified in Section e) below. The emissions unit and control equipment shall be operated in accordance with the approved CAM Plan or any approved revision of the Plan. The baghouse shall not be configured to have bypass capability.

[OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

(4) If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance, the permittee shall promptly notify the appropriate Ohio EPA District Office or local air agency, and if necessary, submit a proposed modification to the Title V permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, re-establishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

[OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

(5) The permit-to-install (PTI) application for emissions units P128 and P129, was evaluated based on the actual materials and the design parameters of the emissions units' exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA

guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

   i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or

   ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).

c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "**X**" hours per day and "**Y**" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

   TLV/10 x 8/X x 5/Y = 4 TLV/XY = MAGLC

d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

   Toxic Contaminant: Cobalt

   TLV (mg/m3): 0.02

   Maximum Hourly Emission Rate (lbs/hr): 0.03

   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0102

   MAGLC (ug/m3): 0.476

   The permittee, has demonstrated that emissions of cobalt, from emissions units P128 and P129, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic

air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

e. Toxic Contaminant: Lead

TLV (mg/m3): 0.05

Maximum Hourly Emission Rate (lbs/hr): 0.03

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.0102

MAGLC (ug/m3): 1.19

The permittee, has demonstrated that emissions of lead, from emissions units P128 and P129, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

[PTI #P0110329]

(6) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration", the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:

a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and

c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTI prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level

concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

[PTI #P0110329]

(7) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):

a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);

b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);

c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and

d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

[PTI #P0110329]

(8) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

[PTI #P0110329]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and

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

These reports shall be submitted to the appropriate Ohio EPA district office or local field office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[OAC rule 3745-77-07(C)(1), PTI #P0110329, and 40 CFR Part 64]

(2) The permittee shall include any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration, in the quarterly deviation (excursion) reports. If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect.

[PTI #P0110329]

f) Testing Requirements

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

a. Emission Limitations:
0.002 gr PM10/dscf

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance with the gr PM10/dscf limitation by testing in accordance with Methods 201/201A and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

[Compliance with the outlet grain loading emission limitation was demonstrated by emissions testing, which was completed on April 17 through 19, 2012.]

[OAC rule 3745-77-07(C)(1) and PTI #P0110329]

b. Emission Limitations:
0.6 lb PM10/hr and 2.6 ton PM10/yr (for P128 and P129, combined)

Applicable Compliance Method:
The lb/hr limitation was established by multiplying the outlet grain loading by a maximum volumetric air flow of 30,000 acfm, applying the appropriate conversion factors of 7000 grains/lb, 1 dscf/1acfm, and 60 minutes/hr. The ton/yr limitation was established by multiplying the outlet grain loading by a maximum volumetric air flow of 30,000 acfm, applying the appropriate conversion factors of 7000 grains/lb, 1 dscf/1acfm, and 60 minutes/hr, 8760 hrs/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the outlet grain loading limitation, compliance with the hourly and annual limitations shall be also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0110329]

c. Emission Limitations:
0.03 lb Be/hr and 0.13 ton Be/yr (for P128 and P129, combined)

Applicable Compliance Method:
Compliance with the lb/hr limitation was demonstrated by emissions testing, which was completed on April 17 through 19, 2012. If required, the permittee shall demonstrate compliance with the lb Be/hr emission limitation by testing in accordance with Methods 1 - 4 and 29 of 40 CFR Part 60, Appendix A.

The ton/year limitation was established by multiplying the pounds per hour limitation by 8760 hours per year, and applying a conversion factor of 1 ton/2000 lbs. Therefore, provided compliance is shown with the hourly emissions limitation, compliance with the annual limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0110329]

d. Emission Limitations:
Visible PE shall not exceed 5% opacity, as a six-minute average from the stack serving both of these emission units.

Applicable Compliance Method:
If required, compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

[OAC rule 3745-77-07(C)(1) and PTI #P0110329]

g) Miscellaneous Requirements

(1) None.

38. Emissions Unit Group –Group O:P007, P069 (insignificant emissions unit), P130, P131

EU ID	Operations, Property and/or Equipment Description
P007	Alloy R & D Lab
P069	Alloy Shot Blaster (insignificant emissions unit)
P130	Master Alloy Furnace Rebuild Area (formerly TMP167669)
P131	Master Alloy Furnace Bay/Rebuild Area Vacuum System (TMP167670)

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI #P0110699, issued 08/24/2012)	<u>The following limitations apply to emission units P007, P069, P130, and P131 combined [see b)(2)d.]:</u> Combined emissions of particulate matter equal to or less than 10 microns in size (PM10) shall not exceed 1.29 lb/hr and 5.65 ton/yr. Combined emissions of beryllium (Be) shall not exceed 0.01 lb/hr and 0.04 ton/yr. Visible particulate emissions (PE) shall not exceed 5% opacity, as a six-minute average. See b)(2)a. and c)(1)
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	See b)(2)b.
c.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 12/01/06	See b)(2)c.
d.	OAC rule 3745-17-11(B)	See b)(2)d.
e.	OAC rule 3745-17-07(A)	See b)(2)e.
f.	40 CFR 61.32(b)	See Term 2 of Section B – FACILITY

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		WIDE TERMS AND CONDITIONS

(2) Additional Terms and Conditions

a. The following federally enforceable emission limitations have been established for the purpose of limiting potential to emit (PTE) to avoid Prevention of Significant Deterioration (PSD) requirements. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1) which require control equipment:

i. 1.29 lb PM10/hr and 5.65 ton/yr;

ii. 0.01 lb Be/hr and 0.04 ton/yr; and

iii. Visible particulate emissions shall not exceed 5% opacity, as a six-minute average.

All emissions of particulate matter from the baghouse stack are PM10 and include Be.

The combined emissions limitations include emissions from P007, P069, P130, and P131, which are particulate and beryllium sources controlled by a common baghouse (C-1-1-6). Additional control devices are also employed for emissions from P131 prior to baghouse C-1-1-6, in accordance with c)(1)b.

b. The requirements of this rule are equivalent to the requirements established pursuant to OAC rule 3745-31-05(D); therefore, the permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit.

On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 Changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, the requirements of 3745-31-05(A)(3) as effective 12-1-06 will no longer apply.

It should be noted that the emission limitations and control requirements established pursuant to OAC rule 3745-31-05(D) will remain applicable after the above SIP revisions are approved by U.S. EPA.

c. This rule applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3)(a), as effective December 1, 2006, do not apply to the PM_{10} emissions from this air contaminant source since the controlled potential to emit (PTE) is less than 10 tons per year taking into consideration federally enforceable requirements established under OAC rule 3745-31-05(D).

d. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D). This determination is based on all emissions of particulate matter being PM10 and the established PM10 limitation being more restrictive than the particulate emissions limitation established by OAC rule 3745-17-11(B). Particulate emissions (PE) measured using Method 5 of 40 CFR Part 60, Appendix A would be equivalent to the filterable particulates measured using Method 201/201A of 40 CFR, Part 51, Appendix M. A PM10 limitation is more stringent due to the inclusion of condensable particulate matter measured by Method 202 of 40 CFR, Part 51, Appendix M.

e. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D).

c) Operational Restrictions

(1) The following operational restrictions have been included in this permit for the purpose of establishing federally enforceable requirements which limit PTE [see b)(2)a.]:

a. These emissions units (P007, P069, P130, and P131) shall be vented to a common baghouse (C-1-1-6) capable of achieving a maximum outlet concentration of 0.005 grains/dscf of PM10; and

b. The master alloy furnace rebuild vacuum drops and furnace bay area vacuum drops associated with emissions unit P131 shall employ a primary cyclone (C-1-1-15), cartridge collector (C-1-1-14), and HEPA filter (C-1-1-13), in series, prior to baghouse C-1-1-6.

[OAC rule 3745-77-07(A)(1) and PTI #P0110699]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall document all times the control devices serving these emissions units were not employed when the emissions units were in operation.

[OAC rule 3745-77-07(C)(1) and PTI #P0110699]

(2) The permittee shall perform daily checks, when any of these emissions units are in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving these emissions units. The presence or absence of any visible emissions shall be noted in an operations log, as well as the date and time the daily check was performed. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. the total duration of any visible emission incident; and

c. any corrective actions taken to eliminate the visible emissions.

[OAC rule 3745-77-07(C)(1), PTI #P0110699, and 40 CFR Part 64]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the stack serving these emissions units, and

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

These reports shall be submitted to the appropriate Ohio EPA district office or local field office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[OAC rule 3745-77-07(C)(1), PTI #P0110699, and 40 CFR Part 64]

f) Testing Requirements

(1) The permittee shall conduct, or have conducted, emission testing for emissions units P007, P069, P130, and P131, in accordance with the following requirements:

a. The emissions testing shall be conducted within 180 days after initial startup of these emission units, unless otherwise approved by the Ohio EPA, Northwest District Office. All four sources (P007, P069, P130, and P131) and all control devices listed in c)(1)a. and c)(1)b. must be operating during the test.

b. The emission testing shall be conducted to demonstrate compliance with the following limits:

i. the combined mass emission limitations of 0.01 lb Be/hr and 0.005 gr/dscf for PM10.

c. The following test methods shall be employed to demonstrate compliance with the above emission limitations and verify emission factors:

i. Methods 1 - 4 of 40 CFR Part 60, Appendix A;

ii. for Be - Method 29 or 104 of 40 CFR Part 60, Appendix A;

iii. for PM10 - Method 201/201A and 202 of 40 CFR Part 51, Appendix M.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

d. The test(s) shall be conducted at a Maximum Source Operating Rate (MSOR), unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency. MSOR is defined as the condition that is most likely to challenge the emission control measures with regards to meeting the applicable emission standard(s). Although it generally consists of operating the emissions unit at its maximum material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test at the MSOR is justification for not accepting the test results as a demonstration of compliance.

e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Division of Air Pollution Control. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the times and dates of the tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's air agency's refusal to accept the results of the emissions tests.

f. Personnel from the Ohio EPA District Office's air agency shall be permitted to witness the test, 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 unit and/or the performance of the control equipment. A comprehensive written report on the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Division of Air Pollution Control within 30 days following completion of the tests.

[OAC rule 3745-77-07(C)(1) and PTI #P0110699]

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

a. <u>Emission Limitations</u>:
0.005 gr PM10/dscf

<u>Applicable Compliance Method:</u>
Compliance with the outlet grain loading emissions limitation shall be demonstrated by emissions testing requirements in f)(1) above.

[OAC rule 3745-77-07(C)(1) and PTI #P0110699]

b. <u>Emission Limitations</u>:
1.29 lb PM10/hr and 5.65 tons PM10/yr (for P007, P069, P130, and P131, combined)

Applicable Compliance Method:
The lb/hr limitation was established by multiplying the outlet grain loading by a maximum volumetric air flow of 30,000 acfm, applying the appropriate conversion factors of 7000 grains/lb, 1 dscf/1acfm, and 60 minutes/hr. The ton/yr limitation was established by multiplying the outlet grain loading by a maximum volumetric air flow of 30,000 acfm, applying the appropriate conversion factors of 7000 grains/lb, 1 dscf/1acfm, and 60 minutes/hr, 8760 hrs/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the outlet grain loading limitation, compliance with the hourly and annual limitations shall be also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0110699]

c. Emission Limitations:
0.01 lb Be/hr and 0.04 ton Be/yr (for P007, P069, P130, and P131, combined)

Applicable Compliance Method:
Compliance with the lb/hr emissions limitation shall be demonstrated by emissions testing requirements in f)(1) above.

The ton/year limitation was established by multiplying the pounds per hour limitation by 8760 hours per year, and applying a conversion factor of 1 ton/2000 lbs. Therefore, provided compliance is shown with the hourly emissions limitation, compliance with the annual limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0110699]

d. Emission Limitations:
Visible PE shall not exceed 5% opacity, as a six-minute average from the stack serving these emission units.

Applicable Compliance Method:
If required, compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources."

[OAC rule 3745-77-07(C)(1) and PTI #P0110699]

g) Miscellaneous Requirements

(1) None.