



State of Ohio Environmental Protection Agency

Street Address:

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

TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

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

11/18/03

**RE: Proposed Title V Chapter 3745-77 Permit  
03-62-00-0009  
Brush Wellman Inc.**

Attn: Genevieve Damico AR-18J  
United States Environmental Protection Agency  
Region V  
77 West Jackson Blvd.  
Chicago, IL 60604-3590

Dear Ms. Damico:

The proposed issuance of the Title V permit for Brush Wellman Inc., has been created in Ohio EPA's State Air Resources System (STARS) on 11/18/03, for review by USEPA. This proposed action is identified in STARS as  3-Title V Proposed Permit T+C covering the facility specific terms and conditions, and  Title V Proposed Permit covering the general terms and conditions. This proposed permit will be processed for issuance as a final action after forty-five (45) days from USEPA's receipt of this certified letter if USEPA does not object to the proposed permit. Please contact me at (614) 644-3631 by the end of the forty-five (45) day review period if you wish to object to the proposed permit.

Very truly yours,

  
Michael W. Ahern, Supervisor  
Field Operations and Permit Section  
Division of Air Pollution Control

cc: Northwest District Office  
File, DAPC PMU



State of Ohio Environmental Protection Agency

PROPOSED TITLE V PERMIT

Issue Date: 11/18/03

Effective Date: To be entered upon final issuance

Expiration Date: To be entered upon final issuance

This document constitutes issuance of a Title V permit for Facility ID: 03-62-00-0009 to:
Brush Wellman Inc.
14710 W. Portage River South Road
1/4 mile east of SR 590
Harris Township, OH 43416-9502

Emissions Unit ID (Company ID)/Emissions Unit Activity Description

Table with 3 columns: Emissions Unit ID (Company ID), Emissions Unit Activity Description, and Emissions Unit Activity Description. Rows include units like B002, B004, F001, L001, P001, P010, P013, P015, P018, P021, P022, P026, P033, P037, P038, P042, P043, P044, P046, P048, P051, P060, P061, P062, P064, P065, P066, P067, P075, P076, P077, P080, P081, P082, P083, P086, P087, Z001, Z010, Z093, Z095, Z100, Z101, Z103, Z181, Z231, and Z260.

(P026)	Z264 (Reduction Furnace #1 ) Pebble - Reduction Furnace #1 (P026)	Screening, Thickening, Treating, and Pebble Cleaning (P026)
Z261 (Fluoride Decomposition Furnace # 7) Pebble - Fluoride Decomp. Induction Furnace #7 (P026)	Z265 (Reduction Furnace #2 ) Pebble - Reduction Furnace #2 (P026)	Z820 (Investment Vacuum Casting) PMP - Investment Vacuum Casting Process (P082)
Z262 (Fluoride Decomposition Furnace # 8) Pebble - Fluoride Decomp. Induction Furnace #8 (P026)	Z266 (Reduction Furnace #3 ) Pebble - Reduction Furnace #3 (P026)	Z958 (Vacuum System Cast Shop #1) Vacuum Cleaning System - Cast Shop #1 - Furnaces 5,6
Z263 (Fluoride Decomposition Furnace # 9) Pebble - Fluoride Decomp. Induction Furnace #9 (P026)	Z267 (Reduction Furnace #4) Pebble - Reduction Furnace #4 (P026)	
	Z268 (Pebble Plant Material Handling ) Pebble - Material Handling - Hammer Mill, Ball Mill,	

You will be contacted approximately eighteen (18) months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency listed below. 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. 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, provided that a complete renewal application is submitted no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

Described below is the current Ohio EPA District Office or local air agency that is responsible for processing and administering your Title V permit:

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

## OHIO ENVIRONMENTAL PROTECTION AGENCY

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Christopher Jones  
Director

## PART I - GENERAL TERMS AND CONDITIONS

### A. *State and Federally Enforceable Section*

#### 1. **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 A.III of Part III of this Title V permit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

- i. The date, place (as defined in the permit), and time of sampling or measurements.
- ii. The date(s) analyses were performed.
- iii. The company or entity that performed the analyses.
- iv. The analytical techniques or methods used.
- v. The results of such analyses.
- vi. The operating conditions existing at the time of sampling or measurement.  
*(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 recordings for 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:

- i. **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 General Term and Condition A.1.c.ii below; and each report shall cover the previous calendar quarter.

In accordance with OAC rule 3745-15-06, a malfunction constitutes a violation of an emission limitation (or control requirement) and, therefore, 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 scheduled maintenance, 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))*

- ii. **Except as may otherwise be provided in the terms and conditions for a specific emissions unit, i.e., in Section A.IV of Part III of this Title V permit or, in some cases, in Part II 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 promptly made to the appropriate Ohio EPA District Office or local air agency. 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 reports shall satisfy the requirements (in part) 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. OAC rule 3745-77-07(A)(3)(c) is not fully satisfied until the permittee addresses all other deviations of the federally enforceable requirements specified in the permit.

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 overrides the reporting requirements specified in this General 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 the requirements (in part) 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 General Term and Condition.

See B.6 below if no deviations occurred during the quarter.

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

- iii. **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 General Term and Condition A.1.c.ii above shall be submitted in the following manner:**

Written reports that identify all other deviations of the federally enforceable requirements contained in this permit, including the monitoring, record keeping, and reporting requirements, which are not reported in accordance with General Term and Condition A.1.c.ii above shall be

submitted to the appropriate Ohio EPA District Office or local air agency by January 31 and July 31 of each year; and each report shall cover the previous six calendar months.

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 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 General Term and Condition A.1.c.ii 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))*

- iv. Each written report shall be signed by a responsible official certifying that, "based on information and belief formed after reasonable inquiry, the statements and information in the report (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete."  
*(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))*
- v. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.  
*(Authority for term: OAC rule 3745-77-07(A)(3)(c))*

## 2. **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 General Term and Condition A.1.c.i above.

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

## 3. **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))*

## 4. **Title IV Provisions**

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

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

**5. Severability Clause**

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

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

**6. General Requirements**

- a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.
- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with A.10 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.

*(Authority for term: OAC rule 3745-77-07(A)(7))*

**7. Fees**

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78.

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

**8. 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))*

**9. 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 general terms and conditions shall apply to all operating scenarios authorized in this permit.

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

**10. 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))*

**11. 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))*

**12. 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 official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
  - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
  - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.
  - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
- i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.
- 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 appropriate Ohio EPA District Office or local air agency) and the Administrator of the U.S. EPA in the following manner and with the following content:
- i. 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.
  - ii. Compliance certifications shall include the following:
    - (a) An identification of each term or condition of this permit that is the basis of the certification.
    - (b) The permittee's current compliance status.
    - (c) Whether compliance was continuous or intermittent.
    - (d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.
    - (e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.
  - iii. 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))*

### **13. 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))*

### **14. 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 appropriate Ohio EPA District Office or local air agency 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 appropriate District Office of the Ohio EPA or local

air agency 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))

**15. 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))

**16. 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. 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))

**17. 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 Fed. Reg. 8314, Feb. 24, 1997), in the context of any future proceeding.

(This term is provided for informational purposes only.)

**18. Insignificant Activities**

Each insignificant activity that has one or more applicable requirements shall comply with those applicable requirements.

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

**19. 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))*

**20. 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))*

**21. 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 by the responsible official of the date on which the emissions unit was permanently shut down. Authorization to operate the affected part or activity of the stationary source shall cease upon the date certified by the responsible official that the emissions unit was permanently shut down.

If 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 monitoring, record keeping, reporting, or testing 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.

No emissions unit certified 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.

**B. State Only Enforceable Section**

**1. Reporting Requirements Related to Monitoring and Record Keeping Requirements**

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 the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (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 appropriate Ohio EPA District Office or local air agency. 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, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

**2. Records Retention Requirements**

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.

**3. 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.

**4. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. 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).

**5. Permit Transfers**

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

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

If no 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 General Term and Condition A.1.c.ii;
- 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 potentials to emit; and
- c. where the company's responsible official has certified that an emissions unit has been permanently shut down.

## Part II - Specific Facility Terms and Conditions

### A. State and Federally Enforceable Section

1. The ambient concentration of Be in the vicinity of the facility shall not exceed 0.01 micrograms (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 properly operate and maintain control equipment and implement control measures for all Be emitting emissions units at the facility.
2. 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.
3. 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

The collocated monitors shall be at the highest reading sites per 40 CFR, Part 58.

Ohio EPA reserves the option to perform quality assurance audits on the monitors upon at least a fourteen-day notice ahead of time to the permittee.

4. The following insignificant emissions units are located at this facility:

B001 (natural gas indirect heaters)  
B003 (boiler #1)  
F002 (solid waste/Be landfill)(PTI # 03-7273)  
G001 (fuel dispensing facility)(PTI # 03-7084)  
P003 (central maintenance shop)  
P004 (ceramic spray dryer)  
P005 (control powder hood)  
P006 (laundry)  
P007 (alloy met lab)  
P009 (heavy gage weld & edge trimmer)  
P011 (cast shop auxiliary operations)(PTI # 03-8183)  
P012 (extrusion press)  
P014 (PMP - brake shop)  
P016 (Be special products)  
P017 (die preparation)  
P019 (vacuum hot press furnace operations)  
P023 (ball mill process)  
P024 (extraction scrap dissolving)  
P027 (extraction/oxide GC salt)  
P025 (pebble bagging)  
P029 (hot strip mill #1)  
P030 (heavy gage car bottom hearth)  
P034 (RBT rod conditioning station)  
P035 (RBT abrasive cropping saw)  
P039 (alloy light gauge strip annealer)  
P045 (Be & Cu recovery process)  
P047 (dross separator)  
P049 ® & D metallurgy lab)(PTI # 03-3322)  
P050 (NNS loading/unloading)(PTI # 03-3322)  
P052 (industrial waste water treatment plant)(PTI # 03-3647)  
P053 (light gage slitter line)(PTI # 03-3924)  
P054 (BeCu dross mill)(PTI # 03-3961)  
P055 (NNS Be powder handling hood)(PTI # 03-4162)  
P057 (alloy equipment repair facility)(PTI # 03-5176)  
P058 (decontamination area)(PTI # 03-5176)  
P063 (pmp atomization)(PTI # 03-6382)  
P069 (alloy shot blaster)(PTI # 03-8367)  
P070 (alloy plate saw #2)(PTI # 03-8220)  
P078 (cold rolling mill #2)(PTI # 03-11224)  
P079 (Aqueous Strip Cleaner)(PTI # 03-9105)  
P088 (finish building slab mill #2)(PTI # 03-11224)  
Z020 (natural gas heater - 6.5 MMBTU/hr)  
Z021 (natural gas heater - 6.5 MMBTU/hr)

Z022 (natural gas heater - 6.5 MMBTU/hr)  
Z023 (natural gas heater - 6.5 MMBTU/hr)  
Z024 (natural gas heater - 6.5 MMBTU/hr)  
Z025 (natural gas heater - 6.5 MMBTU/hr)  
Z026 (natural gas heater - 6.5 MMBTU/hr)  
Z027 (natural gas heater - 6.5 MMBTU/hr)  
Z028 (natural gas heater - 6.5 MMBTU/hr)  
Z029 (natural gas heater - 6.5 MMBTU/hr)  
Z030 (natural gas heater - 6.5 MMBTU/hr)  
Z031 (natural gas heater - 5.2 MMBTU/hr)  
Z032 (natural gas heater - 5 MMBTU/hr)  
Z033 (natural gas heater - 5 MMBTU/hr)  
Z034 (natural gas heater - 4.7 MMBTU/hr)  
Z035 (natural gas heater - 4.2 MMBTU/hr)  
Z036 (natural gas heater - 4 MMBTU/hr)  
Z037 (natural gas heater - 4 MMBTU/hr)  
Z040 (ceramic wet screening)  
Z041 (ceramic material handling)  
Z050 (south powder hood)  
Z090 (billet preparation deburring)  
Z091 (bulk plate grinding)  
Z094 (4-high rolling mill #1)  
Z096 (RBT wire tandem mill #1)  
Z097 (RBT wire tandem mill #2)  
Z098 (RBT - eitel press)  
Z102 (whiting furnace rebuild)  
Z104 (alloy carbon conveying system)  
Z105 (alloy sand conveying system)  
Z180 (tool room machine shop)  
Z230 (PMP - screening, loading and blending)  
Z232 (PMP - attritioning)  
Z233 (PMP - impact grinding)  
Z300 Atomization  
Z301 Whiting BeO Pneumatic Conveyor  
Z302 Whiting Carbon Bin Collector  
Z303 Whiting Carbon Bin Pneumatic Collector  
Z304 Cast Shop Mold Grinder  
Z305 POR ABF Salt Storage  
Z306 POR ABF Calciner Product Storage 1  
Z307 POR ABF Calciner Product Storage 2  
Z308 POR West Oxide Barreling Product  
Z309 POR East Oxide Barreling Product  
Z310 POR Oxide Product  
Z311 POR Oxide Mixing Product  
Z312 PMP Alpine

**Facility Name: Brush Wellman Inc.**  
**Facility ID: 0362000009**

Z313 IG #2 South  
Z314 IG #2 North  
Z900 (alloy billet preparation)  
Z910 (RBT annealing/aging furnaces)  
Z920 (alloy - RBT machining)  
Z930 (heavy gage heat treat furnaces)  
Z940 (Z-mill)  
Z956 (scrap reclamation vacuum system)  
Z957 (decontamination vacuum system)  
Z959 (grit blaster vacuum system)  
Z970 (kapp mill grinder)  
Z980 (Be R&D powder hood 1)  
Z981 (Be R&D powder hood 2)  
Z982 (Be R&D powder hood 3)  
Z983 (Be R&D powder hood 4)

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, and well as any emission limitations and/or control requirements contained within the identified permit to install for the emissions unit. Insignificant emissions units listed above that are not subject to specific permit to install requirements are subject to one or more applicable requirements contained in the federally-approved versions of OAC Chapters 3745-17, 3745-18, and/or 3745-21.

**B. State Only Enforceable Section**

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Boiler #4 (B002)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Boiler #4 (B002)  
 Activity Description: Boiler # 4, 12 mmBtu/hr, Ames Iron Works, Cat. No. AA3005

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
12 mmBtu/hour, natural gas/liquified petroleum gas (LPG)-fired boiler #4	OAC rule 3745-17-10(B)(1)	0.020 lb particulate emissions (PE)/mmBtu of actual heat input
	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**

- 2.a OAC rule 3745-18-06 does not establish sulfur dioxide emission limitations for this emissions unit because the emissions unit only employs natural gas/LPG as fuel.

**II Operational Restrictions**

1. The permittee shall burn only natural gas and/or LPG in this emissions unit.

**III Monitoring and/or Recordkeeping**

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

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Boiler #4 (B002)

#### **IV Reporting Requirements**

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

#### **V Testing Requirements**

1. Compliance Methods Requirements: Compliance with the emission limitations in Section A.I of the terms and conditions of this permit shall be determined in accordance with the following methods:

- 1a. Emission Limitation: 0.020 lb PE/mmBtu of actual heat input

Applicable Compliance Method: When firing natural gas, the permittee may demonstrate compliance with this limitation by multiplying the maximum hourly natural gas consumption rate (11,900 cu. ft/hr) by the emission factor from AP-42, Table 1.4-2 (revised 7/98) of 1.9 lbs PE (filtrable)/mm cu. ft, and then dividing by the maximum heat input capacity of the boiler (12 mmBtu/hr).

When firing LPG, the permittee may demonstrate compliance with this limitation by multiplying the maximum hourly LPG consumption rate (131 gallons/hr) by the emission factor from AP-42, Table 1.5-1 (revised 10/96) of 0.6 lb PE (filtrable)/1000 gallons of LPG used, and then dividing by the maximum heat input capacity of the boiler (12 mmBtu/hr).

If required, compliance with the lb/mmBtu PE limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(9).

- 1b. Emission Limitation: Visible PE shall not exceed 20% opacity, as a 6 minute average, except as provided by rule.

Applicable Compliance Method: If required, compliance with the visible emissions limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

#### **VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Boiler #4 (B002)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Boiler #6 (B004)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Boiler #6 (B004)  
 Activity Description: Boiler # 6, 16.8 MMBTU/hr, Superior Boiler Works, Inc., Model No. 4-4.4-1758-S150-GP

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
16.8 mmBtu/hour, natural gas/liquified petroleum gas (LPG)-fired boiler #6	OAC rule 3745-31-05(A)(3) (PTI #03-2918)	See A.I.2.a.
	OAC rule 3745-17-10(B)	0.020 lb particulate emissions (PE)/mmBtu
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a 6 minute average, except as provided by rule.
	OAC rule 3745-23-06(B) OAC rule 3745-21-08(B)	See A.I.2.c.

**2. Additional Terms and Conditions**

- 2.a The requirements established pursuant to this rule are equivalent to the requirements of OAC rules 3745-17-10(B), 3745-17-07(A), 3745-23-06(B) and 3745-21-08(B).
- 2.b OAC rule 3745-18-06 does not establish sulfur dioxide emission limitations for this emissions unit because the emissions unit only employs natural gas/LPG as fuel.
- 2.c The permittee has satisfied the "latest available control techniques and operating practices required pursuant to OAC rule 3745-23-06 (B) and the "best available control techniques

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Boiler #6 (B004)

and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05 (A) (3) in Permit to Install 03-2918.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the 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 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

## **II Operational Restrictions**

1. The permittee shall burn only natural gas and/or LPG in this emissions unit.

## **III Monitoring and/or Recordkeeping**

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

## **IV Reporting Requirements**

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

## **V Testing Requirements**

1. Compliance Methods Requirements: Compliance with the emission limitations in Section A.I of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 1a. Emission Limitation: 0.020 lb PE/mmBtu of actual heat input

Applicable Compliance Method: When firing natural gas, the permittee may demonstrate compliance with this limitation by multiplying the maximum hourly natural gas consumption rate (16,342 cu. ft/hr) by the emission factor from AP-42, Table 1.4-2 (revised 7/98) of 1.9 lbs PE (filtrable)/mm cu. ft, and then dividing by the maximum heat input capacity of the boiler (16.8 mmBtu/hr).

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Boiler #6 (B004)

When firing LPG, the permittee may demonstrate compliance with this limitation by multiplying the maximum hourly LPG consumption rate (183.6 gallons/hr) by the emission factor from AP-42, Table 1.5-1 (revised 10/96) of 0.6 lb PE (filtrable)/1000 gallons of LPG used, and then dividing by the maximum heat input capacity of the boiler (12 mmBtu/hr).

If required, compliance with the lb/mmBtu PE limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(9).

- 1b. Emission Limitation: Visible PE shall not exceed 20% opacity, as a 6 minute average, except as provided by rule.

Applicable Compliance Method: If required, compliance with the visible emissions limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

## **VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Boiler #6 (B004)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Landfill Roadways and Parking Areas (F001)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Landfill Roadways and Parking Areas (F001)  
 Activity Description: Landfill Roadways & Parking Areas

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
landfill paved roadways and parking areas	OAC rule 3745-17-07(B)(4)	no visible particulate emissions from paved roadways except for 6 minutes during any 60-minute period
	OAC rule 3745-17-08(B), (B)(8), (B)(9)	reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust from paved roadways (See A.I.2.a., A.I.2.c., A.I.2.d., and A.I.2.f. through A.I.2.j.)
landfill unpaved roadways and parking areas	OAC rule 3745-17-07(B)(5)	no visible particulate emissions from unpaved roadways except for 13 minutes during any 60-minute period
	OAC rule 3745-17-08(B), (B)(2), (B)(9)	reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust from unpaved roadways (See A.I.2.b., A.I.2.e. through A.I.2.k.)

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Landfill Roadways and Parking Areas (F001)

## **2. Additional Terms and Conditions**

**2.a** The paved roadways and parking areas that are covered by this permit and subject to the requirements of OAC rules 3745-17-07(B)(4) and 3745-17-08(B)(8) and (B)(9) are listed below:

paved roadways:	paved parking areas:
landfill paved roadways	landfill paved parking areas

**2.b** The unpaved roadways and parking areas that are covered by this permit and subject to the requirements of OAC rules 3745-17-07(B)(5) and 3745-17-08(B)(2) and (B)(9) are listed below:

unpaved roadways:	unpaved parking areas:
landfill unpaved roadways	landfill unpaved parking areas

**2.c** The permittee shall employ reasonably available control measures on all paved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the paved roadways and parking areas by vacuum sweeping, and/or water flushing at sufficient treatment frequencies to ensure compliance, and speed limit restrictions (10 mph). Nothing in this paragraph shall prohibit the permittee from employing other equally effective control measures to ensure compliance.

**2.d** The permittee shall employ reasonably available control measures on the unpaved shoulders of all paved roadways for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the unpaved shoulders of all paved roadways by watering, oiling, and/or chemical stabilization at sufficient treatment frequencies and use speed limit restrictions (10 mph) to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other equally effective control measures to ensure compliance.

**2.e** The permittee shall employ reasonably available control measures on all unpaved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the unpaved roadways and parking areas by watering, oiling, and/or chemical stabilization at sufficient treatment frequencies and use speed limit restrictions (10 mph) to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other equally effective control measures to ensure compliance.

**2.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 a paved or unpaved

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Landfill Roadways and Parking Areas (F001)

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. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use.

- 2.g** Any unpaved roadway or parking area, which during the term of this permit is paved or takes the characteristics of a paved surface due to the application of certain types of dust suppressants, may be controlled with the control measure(s) specified above for paved surfaces. Any unpaved roadway or parking area that takes the characteristics of a paved roadway or parking area due to the application of certain types of dust suppressants shall remain subject to the visible emission limitation for unpaved roadways and parking areas. Any unpaved roadway or parking area that is paved shall be subject to the visible emission limitation for paved roadways and parking areas.
- 2.h** 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.
- 2.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.
- 2.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 requirements of OAC rule 3745-17-08.

## **II Operational Restrictions**

1. When using oil as a dust suppressant to control fugitive dust on unpaved roadways and parking areas, the permittee shall only apply virgin oil for the suppression of fugitive dust. Pursuant to OAC 3745-279-82, the use of used oil as a dust suppressant is prohibited in Ohio.
2. If the permittee uses oil for the suppression of fugitive dust, the following restrictions shall apply:
  - a. oils shall be applied in such a manner as to prevent pollution of waters of the State as required by the Ohio Revised Code, Section 6111;
  - b. oils shall be applied only to unpaved road and parking lot surfaces, and only between sunrise and sundown (daylight hours);
  - c. oils shall not be applied to a water-saturated surface and not to surfaces on days of predicted rainfall events;

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Landfill Roadways and Parking Areas (F001)

- d oils shall not be applied at an application rate that allows pooling of liquid;
- e oils shall not be applied to the same surfaces more frequently than twice per week;
- f the application of oils shall not cause runoff from the application surface;
- g oils shall not be applied to vegetation near or adjacent to surfaces being treated;
- h oils shall not be applied within 12 feet of structures crossing bodies of water or drainage ditches;
- i the discharge of oils must stop when the applicator vehicle stops;
- j the applicator vehicle must be moving at least 5 mph at all times while the oils are being applied;
- k the applicator vehicle discharge valve shall be locked closed between the oil collection point and the specific surfaces that have been approved for oil application;
- l any valves that provide for tank drainage other than through the spreading bar must be locked closed during oil application and transport; and
- m the angle of discharge from the applicator vehicle spreader bar shall not be greater than 60 degrees from the perpendicular to the unpaved surface.

### **III Monitoring and/or Recordkeeping**

1. Except as otherwise provided in this section, the permittee shall perform inspections of each of the paved and unpaved roadway segments and each parking area in accordance with the following frequencies::

paved roadways and parking areas:  
all paved roadways and parking areas

minimum inspection frequency:  
daily, when in use, otherwise, weekly

unpaved roadways and parking areas:  
all unpaved roadways and parking areas

minimum inspection frequency:  
daily, when in use, otherwise weekly

2. The purpose of the inspections is to determine the need for implementing the above-mentioned control measures. The inspections shall be performed during representative, normal traffic

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Landfill Roadways and Parking Areas (F001)

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 may, upon receipt of written approval from the appropriate Ohio EPA District Office or local air agency, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.
4. 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 4.d. shall be kept separately for (i) the paved roadways and parking areas and (ii) the unpaved roadways and parking areas, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

5. The permittee shall obtain an analysis of the oil used for the suppression of fugitive dust from the supplier and a certification that it is not classified as a "waste" or "used" oil.

#### **IV Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify each of the following:
  - 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.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Landfill Roadways and Parking Areas (F001)

The quarterly deviation reports shall be submitted in accordance with paragraph A.1.c.ii. of the General Terms and Conditions of this permit.

2. The permittee shall submit deviation (excursion) reports that identify each day when oil that did not conform with the specifications stated in A.II.2 was employed. Each report shall be submitted within 30 days after the deviation occurs.

## **V Testing Requirements**

1. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following method(s):
  - 1a. Emission Limitation -  
no visible particulate emissions from paved roadways except for 6 minutes during any 60-minute period

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance pursuant to the method and procedures specified in OAC rule 3745-17-03(B)(4).

- 1b. Emission Limitation -  
no visible particulate emissions from unpaved roadways except for 13 minutes during any 60-minute period

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance pursuant to the method and procedures specified in OAC rule 3745-17-03(B)(4).

## **VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Landfill Roadways and Parking Areas (F001)

**A. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: PCE Degreaser (L001)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: PCE Degreaser (L001)  
 Activity Description: Alloy RBT PCE Phillips Degreaser

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
alloy rod bar & tube (RBT)	OAC rule 3745-31-05(A)(3)	See A.I.2.a.
perchloroethylene (PERC) vapor Phillips degreaser; with freeboard refrigeration device and 1.0 freeboard ratio	(PTI # 03-1366) 40 CFR, Part 63, Subpart T	See A.I.2.b and A.II.
	OAC rule 3745-21-09(O)	exempt, pursuant to OAC rule 3745-21-09(O)(6) (See A.I.2.c.)

**2. Additional Terms and Conditions**

- 2.a The requirements established pursuant to this rule are equivalent to the requirements of 40 CFR, Part 63, Subpart T.
- 2.b The permittee shall ensure that the solvent cleaning machine conforms to the following design requirements:
  - i. The solvent cleaning machine shall be designed or operated to meet the following control equipment or technique requirements:
    - (a) Use of reduced room draft that ensures that the flow or movement across the top of the freeboard area of the solvent cleaning machine or within the solvent cleaning machine enclosure does not exceed 15.2 meters per minute (50 feet per minute) at any time measured using the procedure described in the "Monitoring and/or Record Keeping Requirements" section of this permit. The permittee shall establish and maintain the

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** PCE Degreaser (L001)

operating conditions under which the wind speed was demonstrated to be 15.2 meters per minute (50 feet per minute) or less as described in the "Monitoring and/or Record Keeping Requirements" section of this permit.

- ii. The solvent cleaning machine shall have a freeboard ratio of 1.0 or greater.
  - iii. The solvent cleaning machine shall have an automated parts handling system capable of moving parts or parts baskets at a speed of 3.4 meters per minute (11 feet per minute) or less from the initial loading of parts through removal of cleaned parts.
  - iv. The solvent cleaning machine shall be equipped with a device that shuts off the sump heat if the sump liquid solvent level drops to the sump heater coils.
  - v. The solvent cleaning machine shall be equipped with a vapor level control device that shuts off sump heat if the vapor level in the vapor cleaning machine rises above the height of the primary condenser.
  - vi. The solvent cleaning machine shall have a primary condenser.
  - vii. The permittee shall ensure that the chilled air blanket temperature (in degrees Fahrenheit), measured at the center of the air blanket, is no greater than 30 percent of the solvent's boiling point.
- 2.c** The exemption allowed in accordance with OAC rule 3745-21-09(O)(6) is not currently part of the federally-approved SIP. During the rule-making process, Ohio EPA received confirmation from USEPA concerning the acceptability of this exemption. Therefore, this exemption will be considered to be federally enforceable while SIP approval by USEPA is being obtained.

## **II Operational Restrictions**

- 1. The permittee shall meet all of the following required work and operational practices:
  - a. Control air disturbances across the solvent cleaning machine opening(s) by incorporating the following control equipment or techniques:
    - i. The permittee shall employ a reduced room draft that ensures that the flow or movement of air across the top of the freeboard area of the solvent cleaning machine or within the solvent cleaning machine enclosure does not exceed 15.2 meters per minute (50 feet per minute) at any time as measured using the procedures described in the "Monitoring and/or Record Keeping Requirements" section of this permit. The permittee shall also establish and maintain the operating conditions under which the wind speed was demonstrated to be 15.2

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** PCE Degreaser (L001)

meters per minute (50 feet per minute) or less as described in the "Monitoring and/or Record Keeping Requirements" section of this permit.

- b. The parts baskets or the parts being cleaned in solvent cleaning machine shall not occupy more than 50 percent of the solvent/air interface area unless the parts baskets or parts are introduced at a speed of 0.9 meter per minute (3 feet per minute) or less.
- c. Any spraying operations shall be done within the vapor zone or within a section of the solvent cleaning machine that is not directly exposed to the ambient air (i.e., a baffled or enclosed area of the solvent cleaning machine).
- d. Parts shall be oriented so that the solvent drains from them freely. Parts having cavities or blind holes must be tipped or rotated before being removed from the solvent cleaning machine unless an equally effective approach has been approved by the Director (Northwest District Office).
- e. Parts baskets or parts shall not be removed from the solvent cleaning machine until dripping has stopped.
- f. During startup of the solvent cleaning machine, the primary condensers shall be turned on before the sump heater.
- g. During shutdown of the solvent cleaning machine, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.
- h. When solvent is added or drained from the solvent cleaning machine, the solvent shall be transferred using threaded or other leakproof couplings and the end of the pipe in the solvent sump shall be located beneath the liquid solvent surface.
- i. The solvent cleaning machine and its associated controls shall be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to the satisfaction of the Director (Northwest District Office) to achieve the same or better results as those recommended by the manufacturer.
- j. The permittee shall complete and pass the applicable sections of the test of solvent cleaning operating procedures in 40 CFR Part 63, Appendix B if requested during an inspection by the Director (Northwest District Office).

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** PCE Degreaser (L001)

- k. Waste solvent, still bottoms, and sump bottoms shall be collected and stored in closed containers. The closed containers may contain a device that would allow pressure relief, but must not allow liquid solvent to drain from the container.
- l. Sponges, fabric, wood, and paper products shall not be cleaned.

### **III Monitoring and/or Recordkeeping**

- 1. The permittee shall conduct monitoring and record the results on a weekly basis for the freeboard refrigeration device by using a thermometer or thermocouple to measure the temperature at the center of the air blanket during the idling mode.
- 2. The permittee shall monitor the hoist speed as described below:
  - a. The permittee shall determine the hoist speed by measuring the time it takes for the hoist to travel a measured distance. The speed is equal to the distance in meters divided by the time in minutes (meters per minute).
  - b. The permittee shall conduct monthly monitoring of the hoist speed. If after the first year, no exceedances of the hoist speed are measured, the permittee may begin monitoring the hoist speed quarterly.
  - c. If an exceedance of the hoist speed occurs during quarterly monitoring, the permittee shall return to a monthly monitoring frequency until another year of compliance without an exceedance is demonstrated.
  - d. If the permittee can demonstrate to the satisfaction of the Director (Northwest District Office) in the initial compliance report that the hoist speed cannot exceed a speed of 3.4 meters per minute (11 feet per minute), the required monitoring frequency is quarterly, including during the first year of compliance.
- 3. The permittee shall maintain the following records in written or electronic form for the lifetime of the solvent cleaning machine:
  - a. Owner's manuals, or if not available, written maintenance and operating procedures for the solvent cleaning machine and control equipment.
  - b. The date of installation for the solvent cleaning machine and all of its control devices. If the exact date for the installation is not known, a letter certifying that the cleaning machine and its control devices were installed prior to, or on, November 29, 1993, or after November 29, 1993, may be substituted.
  - c. Records of the halogenated HAP solvent content for the solvent used in the solvent cleaning machine.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** PCE Degreaser (L001)

4. The permittee shall maintain the following records in written or electronic form for a period of five years for the solvent cleaning machine:
  - a. The results of control device monitoring required in this section of the permit.
  - b. Information on the actions taken to comply with 40 CFR 63.463 (e) and (f), including records of written or verbal orders for replacement parts, a description of the repair made, and additional monitoring conducted to demonstrate that monitored parameters have returned to acceptable levels.
  - c. Estimates of annual perchloroethylene consumption for the solvent cleaning machine.

#### **IV Reporting Requirements**

1. The permittee shall submit an initial notification report. Each initial notification report shall contain the following:
  - a. The name and address of the permittee.
  - b. The address (i.e., physical location) of the solvent cleaning machine.
  - c. A brief description of the solvent cleaning machine type, solvent/air interface area, and existing controls.
  - d. The date of installation for each solvent cleaning machine or a letter certifying that the solvent cleaning machine and its control devices were installed prior to, or after, November 2, 1993.
  - e. The anticipated compliance approach for the solvent cleaning machine.
  - f. An estimate of the annual perchloroethylene consumption for the solvent cleaning machine.
2. The permittee shall submit an initial statement of compliance. Each initial statement of compliance shall contain the following:
  - a. The name and address of the permittee.
  - b. The address (i.e., physical location) of the solvent cleaning machine.
  - c. A list of the control equipment used to achieve compliance.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** PCE Degreaser (L001)

- d. A list of the parameters that are monitored and the values of these parameters measured on or during the first month after the compliance date for each piece of control equipment required to be monitored.
3. The permittee shall submit an annual report by February 1 of each year for the preceding year. Each annual report shall contain the following:
    - a. A signed statement from the facility owner or their designee stating that, "All operators of solvent cleaning machines have received training on the proper operation of solvent cleaning machines and their control devices sufficient to pass the test required pursuant to 40 CFR 60.463 (d) (10)."
    - b. An estimate of solvent consumption during the reporting period.
  4. The permittee shall submit an exceedance report on a semiannual basis. If the temperature of the chilled air blanket, measured at the center of the air blanket, was greater than 30 percent of the solvent's boiling point, and no correction was made within 15 days of detection, the permittee shall begin to submit a quarterly report until such time that the permittee requests and receives approval of a less frequent reporting frequency from the Director (Northwest District Office). The permittee may receive approval of less frequent reporting if the following conditions are met: (1) The emissions unit has demonstrated a full year of compliance without an exceedance, (2) the permittee continues to comply with all relevant record keeping and monitoring requirements specified in 40 CFR 63.1, General Provisions, and (3) the Director (Northwest District Office) does not object to a reduced frequency of reporting for the affected emissions unit as provided in paragraph (e) (3) (iii) of subpart A, 40 CFR 63.1, General Provisions. Each exceedance report shall be delivered or post marked by the 30th day following the reporting period. Each exceedance report shall contain the following:
    - a. The reason and a description of the exceedance and action(s) taken to comply with 40 CFR 63.463 (e) and (f) including written or verbal orders for replacement parts, a description of the repairs made, and additional monitoring conducted to demonstrate that monitored parameters have returned to acceptable levels.
    - b. If no exceedance has occurred, a statement to that effect shall be submitted.

## **V Testing Requirements**

1. The permittee shall determine the facility's potential to emit (PTE) from all solvent cleaning operations. A facility's total PTE is the sum of the HAP emissions from all solvent cleaning operations plus all HAP emissions from other emissions units from within the facility. The potential to emit shall be determined in accordance with the following procedures:
  - 1a. Determine the potential to emit for each individual solvent cleaning machine using the following equation:

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** PCE Degreaser (L001)

$$PTE_i = H_i \times W_i \times SAI_i$$

Where:

$PTE_i$  = the potential to emit for the solvent cleaning machine  $i$  (kilograms solvent per year).

$H_i$  = hours of operation for solvent cleaning machine  $i$  (hours per year).

= 8760 hours per year, unless otherwise restricted by a federally enforceable requirement.

$W_i$  = the working mode uncontrolled emission rate (kilograms per square meter per hour).

= 1.95 kilograms per square meter per hour for batch vapor and cold cleaning machines.

= 1.12 kilograms per square meter per hour for in-line cleaning machines.

$SAI_i$  = solvent/air interface area of solvent cleaning machine  $i$  (square meters). Section 63.461 defines the solvent/air interface area for those machines that have a solvent /air interface. Cleaning machines that do not have a solvent area interface shall calculate a solvent/air interface area using the procedure in paragraph (b) below.

- 1b. Cleaning machines that do not have a solvent/air interface shall calculate a solvent/air interface area using the following equation:

$$SAI = 2.2 * (Vol)^{0.6}$$

Where:

$SAI$  = the solvent/air interface area (square meters).

$Vol$  = the cleaning capacity of the solvent cleaning machine (cubic meters).

- 1c. Sum the  $PTE_i$  for all solvent cleaning operations to obtain the total potential to emit for solvent cleaning operations at the facility.

## **VI Miscellaneous Requirements**

1. As an alternative to meeting the requirements of 40 CFR, Part 63.463, the permittee may elect to comply with the requirements of 40 CFR, Part 63.464, or other equivalent methods of control using the procedures described in 40 CFR, Part 63.469. If the permittee chooses either of these options, the permittee would be required to notify Ohio EPA, in writing, prior to implementation.

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: PCE Degreaser (L001)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<b><u>Operations, Property, and/or Equipment</u></b>	<b><u>Applicable Rules/Requirements</u></b>	<b><u>Applicable Emissions Limitations/Control Measures</u></b>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: General Furnace Rebuild (P001)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: General Furnace Rebuild/Grit Blaster (P001)  
 Activity Description: General Furnace Rebuild Operations - Building #18 (P001)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
general furnace rebuild with baghouse	OAC rule 3745-17-07(A)	See A.I.2.a.
	OAC rule 3745-17-11(B)	See A.I.2.b.
	OAC rule 3745-18-06(E)	Exempt (see A.I.2.c).

**2. Additional Terms and Conditions**

- 2.a 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.
- 2.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.
- 2.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).

**II Operational Restrictions**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** General Furnace Rebuild (P001)

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: General Furnace Rebuild (P001)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Whiting Furnace (P010)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Whiting Furnace (P010)  
 Activity Description: Whiting Arc Furnace Operations (P010)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Whiting furnace (electric), with two baghouses and cartridge filters	OAC rule 3745-31-05(A)(3) (PTI # 03-899)	See A.I.2.a.
	OAC rule 3745-17-11(B)	15 lbs particulate emission (PE)/hr
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-23-06(B) OAC rule 3745-21-08(B)	See A.I.2.b.

**2. Additional Terms and Conditions**

- 2.a The requirements established pursuant to this rule are equivalent to the requirements of OAC rules 3745-17-11(B), 3745-17-07(A), 3745-23-06(B) and 3745-21-08(B).
- 2.b The permittee has satisfied the "latest available control techniques and operating practices required pursuant to OAC rule 3745-23-06 (B) and the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05 (A) (3) in Permit to Install 03-899.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Whiting Furnace (P010)

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the 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 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

## **II Operational Restrictions**

None

## **III Monitoring and/or Recordkeeping**

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 visible emissions.

## **IV 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 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.

## **V Testing Requirements**

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

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Whiting Furnace (P010)

- a. The emission testing shall be conducted within 12 months after issuance of this permit. Further testing shall be conducted in accordance with Engineering Guide #16.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE, and to determine actual emission rates for CO and OC.
  - c. The following test methods shall be employed during the emissions testing:
    - i. For PE: Methods 1 - 5 of 40 CFR Part 60, Appendix A.
    - ii. For CO: Methods 1 - 4 and 10 of 40 CFR Part 60, Appendix A.
    - iii. For OC: Methods 1 - 4 and 18, 25 or 25A, as appropriate, of 40 CFR Part 60, Appendix A.
  - d. The tests 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.
2. 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).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

3. During the emission testing of this emissions unit, the following additional information shall be recorded:
  - a. the pressure drop across each particulate control device, in inches of water; and
  - b. the tons of product produced.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Whiting Furnace (P010)

4. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following method(s):
  - a. Emission Limitation:  
15 pounds PE/hour  
  
Applicable Compliance Method:  
The permittee shall demonstrate compliance with the hourly allowable PE limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5.
  - b. Emission Limitation -  
Visible particulate emissions 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).

## **VI Miscellaneous Requirements**

1. The permittee was issued a permit to install in 1980 for this emissions unit. Also, the permittee was issued a Notice of Violation on November 26, 2002 for failing to address emissions of carbon monoxide and other potential pollutants of incomplete combustion and for failing to go through the requirements of New Source Review. This constituted a violation of the PSD rules of 40 CFR 52.21. [The permittee has since submitted a PSD permit to install application to achieve compliance with the applicable requirements in accordance with the USEPA's "Appropriate Injunctive Relief Policy".]

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Whiting Furnace (P010)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Bulk Pickling and Caustic Cleaning (P013)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Bulk Pickling and Caustic Cleaning (P013)  
 Activity Description: Alloy Heavy Gauge Bulk Pickling and Caustic Bath

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
alloy heavy gauge bulk pickling and caustic bath	OAC rule 3745-17-11(B)	See A.I.2.a.
	OAC rule 3745-17-07(A)	See A.I.2.b.

- 2. **Additional Terms and Conditions**

- 2.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.
- 2.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.

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Bulk Pickling and Caustic Cleaning (P013)

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Bulk Pickling and Caustic Cleaning (P013)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Graphite Machine Shop (P015)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Wheelabrator Collector (P015)  
 Activity Description: Powder Metal Graphite Machining

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
graphite machine shop - with two baghouses and a cyclone	OAC rule 3745-17-11(B)	See A.I.2.a.
	OAC rule 3745-17-07(A)	See A.I.2.b.

2. **Additional Terms and Conditions**

- 2.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.
- 2.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.

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Graphite Machine Shop (P015)

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Graphite Machine Shop (P015)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name: Brush Wellman Inc.**  
**Facility ID: 0362000009**  
**Emissions Unit: PMP Be Machining (P018)**

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: PMP Be Machining (P018)  
 Activity Description: Powder Metal - Security, Front, CNC Machine Shops, EDM Area, Saw Room (P018)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
powder metal products - security, front, CNC machine shops, EDM area, saw room - with two	OAC rule 3745-17-11(B)	See A.I.2.a.
baghouses and cartridge filter	OAC rule 3745-17-07(A)	See A.I.2.b.

2. **Additional Terms and Conditions**

- 2.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.
- 2.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.

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** PMP Be Machining (P018)

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: PMP Be Machining (P018)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: PMP - Scrap Reclamation (P021)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: PMP - Scrap Reclamation (P021)  
 Activity Description: Powder Metal - Scrap Reclamation Operations (P021)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Powder Metal Products - scrap reclamation operations, with four baghouses	40 CFR, Part 63, Subpart T	See A.I.2.a.
	OAC rule 3745-21-09(O)	exempt, pursuant to OAC rule 3745-21-09(O)(6) (See A.I.2.b.)
	OAC rule 3745-17-11(B)	See A.I.2.c.
	OAC rule 3745-17-07(A)	See A.I.2.d.

**2. Additional Terms and Conditions**

- 2.a The cold cleaner shall employ a tightly fitting cover that shall be closed at all times except during parts entry and removal and a freeboard ratio of 0.75 or greater.
- 2.b The exemption allowed in accordance with OAC rule 3745-21-09(O)(6) is not currently part of the federally-approved SIP. During the rule-making process, Ohio EPA received confirmation from USEPA concerning the acceptability of this exemption. Therefore, this exemption will be considered to be federally enforceable while SIP approval by USEPA is being obtained.
- 2.c 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.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** PMP - Scrap Reclamation (P021)

- 2.d** 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.

## **II Operational Restrictions**

1. The permittee shall comply with the following work and operational practice requirements:
  - a. All waste solvent shall be collected and stored in closed containers. The closed container may contain a device that allows pressure relief, but does not allow liquid solvent to drain from the container.
  - b. If a flexible hose or flushing device is used, flushing shall be performed only within the freeboard area of the solvent cleaning machine.
  - c. The permittee shall drain solvent cleaned parts for 15 seconds or until dripping has stopped, whichever is longer. Parts having cavities or blind holes shall be tipped or rotated while draining.
  - d. The permittee shall ensure that the solvent level does not exceed the fill line.
  - e. Spills during solvent transfer shall be wiped up immediately. The wipe rags shall be stored in covered containers meeting the requirements of paragraph (1) (a) above.
  - f. When an air- or pump-agitated solvent bath is used, the permittee shall ensure that the agitator is operated to produce a rolling motion of the solvent, but not observable splashing against tank walls or parts being cleaned.
  - g. The permittee shall ensure that, when the cover is open, the cold cleaning machine is not exposed to drafts greater than 40 meters per minute (132 feet per minute), as measured between 1 and 2 meters (3.3 and 6.6 feet) upwind and at the same elevation as the tank lip.
  - h. Sponges, fabric, wood, and paper products shall not be cleaned.

## **III Monitoring and/or Recordkeeping**

None

## **IV Reporting Requirements**

1. The permittee shall submit an initial notification report. Each initial notification report shall contain the following:
  - a. The name and address of the owner or operator.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** PMP - Scrap Reclamation (P021)

- b. The address (i.e., physical location) of the solvent cleaning machine.
- c. A brief description of the solvent cleaning machine type, solvent/air interface area, and existing controls.
- d. The date of installation for each solvent cleaning machine or a letter certifying that the solvent cleaning machine and its control devices were installed prior to, or after, November 2, 1993.
- e. The anticipated compliance approach for the solvent cleaning machine.
- f. An estimate of the Perchloroethylene consumption for the solvent cleaning machine.

## V Testing Requirements

- 1. The permittee shall determine the facility's potential to emit (PTE) from all solvent cleaning operations. A facility's total PTE is the sum of the HAP emissions from all solvent cleaning operations plus all HAP emissions from other emissions units from within the facility. The potential to emit shall be determined in accordance with the following procedures:
  - 1a. Determine the potential to emit for each individual solvent cleaning machine using the following equation:

$$PTE_i = H_i \times W_i \times SAI_i$$

Where:

$PTE_i$  = the potential to emit for the solvent cleaning machine  $i$  (kilograms solvent per year).

$H_i$  = hours of operation for solvent cleaning machine  $i$  (hours per year).

= 8760 hours per year, unless otherwise restricted by a federally enforceable requirement.

$W_i$  = the working mode uncontrolled emission rate (kilograms per square meter per hour).

= 1.95 kilograms per square meter per hour for batch vapor and cold cleaning machines.

= 1.12 kilograms per square meter per hour for in-line cleaning machines.

$SAI_i$  = solvent/air interface area of solvent cleaning machine  $i$  (square meters). Section 63.461 defines the solvent/air interface area for those machines that have a solvent /air interface.

Cleaning machines that do not have a solvent area interface shall calculate a solvent/air interface area using the procedure in paragraph (b) below.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** PMP - Scrap Reclamation (P021)

- 1b. Cleaning machines that do not have a solvent/air interface shall calculate a solvent/air interface area using the following equation:

$$SAI = 2.2 * (Vol)^{0.6}$$

Where:

SAI = the solvent/air interface area (square meters).

Vol = the cleaning capacity of the solvent cleaning machine (cubic meters).

- 1c. Sum the PTE<sub>i</sub> for all solvent cleaning operations to obtain the total potential to emit for solvent cleaning operations at the facility.

## **VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: PMP - Scrap Reclamation (P021)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. **Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: PMP - Vacuum Casting Furnaces (P022)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: PMP - Vacuum Casting Furnaces (P022)  
 Activity Description: Powder Metal Press - Vacuum Casting Furnace, Charge Make-up (P022)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
powder metal products - vacuum casting furnace, charge make-up with baghouse and packed tower scrubber	OAC rule 3745-17-07(A)	See A.I.2.a.
	OAC rule 3745-17-11(B)	See A.I.2.b.
	OAC rule 3745-18-06(E)	Exempt (see A.I.2.c).

**2. Additional Terms and Conditions**

- 2.a 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.
- 2.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.
- 2.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).

**II Operational Restrictions**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** PMP - Vacuum Casting Furnaces (P022)

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: PMP - Vacuum Casting Furnaces (P022)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Wet Plant (P026)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Wet Plant (P026)  
 Activity Description: Pebble/Oxide - Tanks/Mixing Operations. Dissolving make-up tank, thickening, filtering, sulfide treating, solution storage, adjusting, concentrating, crystallizing, centrifuging, ABF dryer, and ABF salt storage, etc...

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<b><u>Operations, Property, and/or Equipment</u></b>	<b><u>Applicable Rules/Requirements</u></b>	<b><u>Applicable Emissions Limitations/Control Measures</u></b>
pebble oxide - tanks and mixing operations, with two packed tower scrubbers	OAC rule 3745-17-11(B)	See A.I.2.a.
	OAC rule 3745-17-07(A)	See A.I.2.b.

**2. Additional Terms and Conditions**

- 2.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.
- 2.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.

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Wet Plant (P026)

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Wet Plant (P026)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name: Brush Wellman Inc.**  
**Facility ID: 0362000009**  
**Emissions Unit: RBT Bulk Cleaning System (P033)**

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: RBT Bulk Cleaning System (P033)  
 Activity Description: Alloy RBT Bulk Cleaning System (P033)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
alloy RBT - pickling and caustic cleaning with packed tower scrubber	OAC rule 3745-31-05(A)(3) (PTI #03-1366)	See A.I.2.a.
	OAC rule 3745-17-11(B)	See A.I.2.b.
	OAC rule 3745-17-07(A)	See A.I.2.c.

**2. Additional Terms and Conditions**

- 2.a There were no emission limitations established pursuant to OAC rule 3745-31-05(A).
- 2.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.
- 2.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.

**II Operational Restrictions**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** RBT Bulk Cleaning System (P033)

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: RBT Bulk Cleaning System (P033)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Be Oxide Fce. #9 (P037)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Be Oxide Fce. #9 (P037)  
 Activity Description: Be-Oxide Furnace #9

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Be-oxide furnace #9 with baghouse, packed tower scrubber, and demister	OAC rule 3745-31-05(A)(3) (PTI #03-1948)	1.2 lbs particulate emissions (PE)/hr, See A.I.2.a.
	OAC rule 3745-17-11(B)(1)	See A.I.2.b.
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a 6 minute average, except as provided by rule.
	OAC rule 3745-18-06(E)	Exempt (see A.I.2.c).
	OAC rule 3745-23-06(B) OAC rule 3745-21-08(B)	See A.I.2.d.

**2. Additional Terms and Conditions**

- 2.a The requirements of this rule also include compliance with the requirements of OAC rules 3745-23-06(B), 3745-21-08(B) and 3745-17-07 .
- 2.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).
- 2.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).

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Be Oxide Fce. #9 (P037)

- 2.d The permittee has satisfied the "latest available control techniques and operating practices required pursuant to OAC rule 3745-23-06 (B) and the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05 (A) (3) in Permit to Install 03-1709.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the 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 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

## **II Operational Restrictions**

1. The pressure drop across the baghouse shall be maintained within the range of 1 to 10 inches of water while the emissions unit is in operation. The listed pressure drop range shall apply at all times except during periods of re-bagging or cleaning until sufficient filter cake is developed on the bags.
2. The wet scrubber (C-9-1-3) shall be designed and operated in accordance with the following requirements:
  - a. The pressure drop across the scrubber shall be continuously maintained within a range of 0.4 - 4.5 inches of water at all times while the emissions unit is in operation.
  - b. The scrubber water flow rate shall be continuously maintained at a value of not less than 200 gallons per minute at all times while the emissions unit is in operation.
  - c. The pH of the scrubber liquor shall be maintained within the range of 6.5 to 10.5.

## **III Monitoring and/or Recordkeeping**

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.
2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber water flow rate while this emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Be Oxide Fce. #9 (P037)

3. The permittee shall collect and record the following information on a daily basis for this emissions unit:
  - a. the pressure drop across the scrubber, in inches of water;
  - b. the scrubber water flow rate, in gallons/minute,
  - c. the pH of the scrubber liquor; and
  - d. a log of the downtime for any time periods when the capture system, control device or monitoring equipment were not working while the emissions unit was in operation.

#### **IV Reporting Requirements**

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above. The permittee shall submit deviation (excursion) reports in accordance with General Term and Condition A.I.c.ii of this permit.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within or above the required levels:
  - a. The static pressure drop across the scrubber.
  - b. The scrubber water flow rate.
  - c. The pH of the scrubber liquor.

The permittee shall submit deviation (excursion) reports in accordance with General Term and Condition A.I.c.ii of this permit.

3. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.

#### **V Testing Requirements**

1. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following method(s):
  - 1a. Emission Limitation:  
1.2 lbs PE/hr

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Be Oxide Fce. #9 (P037)

**Applicable Compliance Method:**

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 a baghouse (with a control efficiency of 99%) and a packed tower scrubber (with a manufacturer's guarantee control efficiency of 90%). For the compliance demonstration, the conservative control efficiency of 90% was utilized.

1b. **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 specified in OAC rule 3745-17-03(B)(1).

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Be Oxide Fce. #9 (P037)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Billet Prep. Billet Homog. Furnace (P038)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Billet Prep. Billet Homog. Furnace (P038)  
 Activity Description: Alloy Melting & Casting Billet Homog. Furnace, Sauder Lift-up Furnace - Old Cast Shop (P038)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
alloy melting & casting billet homogenization furnace, Sauder lift-up furnace - old cast shop	OAC rule 3745-31-05(A)(3) (PTI #03-1709)	See A.I.2.a.
	OAC rule 3745-17-11(B)	See A.I.2.b.
	OAC rule 3745-17-07(A)	See A.I.2.c.
	OAC rule 3745-18-06(E)	39 lbs SO2/hr
	OAC rule 3745-23-06(B) OAC rule 3745-21-08(B)	See A.I.2.d.

**2. Additional Terms and Conditions**

- 2.a The requirements established pursuant to this rule are equivalent to the requirements of OAC rules 3745-18-06(E), 3745-23-06(B) and 3745-21-08(B) .
- 2.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.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Billet Prep. Billet Homog. Furnace (P038)

- 2.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.
- 2.d The permittee has satisfied the "latest available control techniques and operating practices required pursuant to OAC rule 3745-23-06 (B) and the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05 (A) (3) in Permit to Install 03-1709.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the 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 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

## **II Operational Restrictions**

None

## **III Monitoring and/or Recordkeeping**

None

## **IV Reporting Requirements**

None

## **V Testing Requirements**

1. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following method(s):

Emission Limitation:  
39 pounds SO<sub>2</sub>/hour

Applicable Compliance Method:  
The emissions unit is assumed to be in compliance with the SO<sub>2</sub> limitation above since the amount of SO<sub>2</sub> generated in this emissions unit is negligible.

## **VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Billet Prep. Billet Homog. Furnace (P038)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Be Oxide Fce. #7 (P042)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Be Oxide Fce. #7 (P042)  
 Activity Description: Be-Oxide Furnace #7

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Be Oxide furnace # 7 with baghouse, packed tower scrubber and demister	OAC rule 3745-31-05(A)(3) (PTI #03-937)	See A.I.2.a.
	OAC rule 3745-17-11(B)	See A.I.2.b.
	OAC rule 3745-17-07(A)	See A.I.2.c.
	OAC rule 3745-18-06(E)	Exempt (see A.I.2.d).
	OAC rule 3745-23-06(B) OAC rule 3745-21-08(B)	See A.I.2..e.

**2. Additional Terms and Conditions**

- 2.a The requirements established pursuant to this rule are equivalent to the requirements of OAC rules 3745-23-06(B), 3745-18-06(E) and 3745-21-08(B) .
- 2.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.
- 2.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.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Be Oxide Fce. #7 (P042)

- 2.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).
- 2.e** The permittee has satisfied the "latest available control techniques and operating practices required pursuant to OAC rule 3745-23-06 (B) and the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05 (A) (3) in Permit to Install 03-937.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the 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 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

## **II Operational Restrictions**

1. The pressure drop across the baghouse shall be maintained within the range of 1 to 10 inches of water while the emissions unit is in operation. The listed pressure drop range shall apply at all times except during periods of re-bagging or cleaning until sufficient filter cake is developed on the bags.
2. The packed tower scrubber (C-9-1-3) shall be designed and operated in accordance with the following requirements:
  - a. The pressure drop across the scrubber shall be continuously maintained within a range of 0.4 - 8 inches of water at all times while the emissions unit is in operation.
  - b. The scrubber water flow rate shall be continuously maintained at a value of not less than 200 gallons per minute at all times while the emissions unit is in operation.
  - c. The pH of the scrubber liquor shall be maintained within the range of 6.5 to 10.5.

## **III Monitoring and/or Recordkeeping**

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

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Be Oxide Fce. #7 (P042)

2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber, the scrubber water flow rate and the scrubber pH while this emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
3. The permittee shall collect and record the following information on a daily basis for this emissions unit:
  - a. the pressure drop across the scrubber, in inches of water;
  - b. the scrubber water flow rate, in gallons/minute,
  - c. the pH of the scrubber liquor; and
  - d. a log of the downtime for any time periods when the capture system, control device or monitoring equipment were not working while the emissions unit was in operation.

#### **IV Reporting Requirements**

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above. The permittee shall submit deviation (excursion) reports in accordance with General Term and Condition A.I.c.ii of this permit.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within or above the required levels:
  - a. The static pressure drop across the scrubber.
  - b. The scrubber water flow rate.
  - c. The pH of the scrubber liquor.

The permittee shall submit deviation (excursion) reports in accordance with General Term and Condition A.I.c.ii of this permit.

3. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.

#### **V Testing Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Be Oxide Fce. #7 (P042)

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Be Oxide Fce. #7 (P042)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Be Oxide Fce. #8 (P043)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Be Oxide Fce. #8 (P043)  
 Activity Description: Be-Oxide Furnace #8

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Be-Oxide Furnace #8 with baghouse, packed tower scrubber, and demister	OAC rule 3745-31-05(A)(3) (PTI #03-937)	See A.I.2.a.
	OAC rule 3745-17-11(B)	See A.I.2.b.
	OAC rule 3745-17-07(A)	See A.I.2.c.
	OAC rule 3745-18-06(E)	Exempt (see A.I.2.d).
	OAC rule 3745-23-06(B) OAC rule 3745-21-08(B)	See A.I.2.e.

**2. Additional Terms and Conditions**

- 2.a The requirements established pursuant to this rule are equivalent to the requirements of OAC rules 3745-23-06(B), 3745-18-06(E) and 3745-21-08(B) .
- 2.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.
- 2.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.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Be Oxide Fce. #8 (P043)

- 2.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).
2. e The permittee has satisfied the "latest available control techniques and operating practices required pursuant to OAC rule 3745-23-06 (B) and the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05 (A) (3) in Permit to Install 03-937.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the 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 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

## **II Operational Restrictions**

1. The pressure drop across the baghouse shall be maintained within the range of 1 to 10 inches of water while the emissions unit is in operation. The listed pressure drop range shall apply at all times except during periods of rehangng or cleaning until sufficient filter cake is developed on the bags.
2. The packed tower scrubber (C-9-1-3) shall be designed and operated in accordance with the following requirements:
  - a. The pressure drop across the scrubber shall be continuously maintained within a range of 0.4 - 8 inches of water at all times while the emissions unit is in operation.
  - b. The scrubber water flow rate shall be continuously maintained at a value of not less than 200 gallons per minute at all times while the emissions unit is in operation.
  - c. The pH of the scrubber liquor shall be maintained within the range of 6.5 to 10.5.

## **III Monitoring and/or Recordkeeping**

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

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Be Oxide Fce. #8 (P043)

2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber, the scrubber water flow rate and the scrubber pH while this emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
3. The permittee shall collect and record the following information on a daily basis for this emissions unit:
  - a. the pressure drop across the scrubber, in inches of water;
  - b. the scrubber water flow rate, in gallons/minute;
  - c. the pH of the scrubber liquor; and
  - d. a log of the downtime for any time periods when the capture system, control device or monitoring equipment were not working while the emissions unit was in operation.

#### **IV Reporting Requirements**

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above. The permittee shall submit deviation (excursion) reports in accordance with General Term and Condition A.I.c.ii of this permit.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within or above the required levels:
  - a. The static pressure drop across the scrubber.
  - b. The scrubber water flow rate.
  - c. The pH of the scrubber liquor.

The permittee shall submit deviation (excursion) reports in accordance with General Term and Condition A.I.c.ii of this permit.
3. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.

#### **V Testing Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Be Oxide Fce. #8 (P043)

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Be Oxide Fce. #8 (P043)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name: Brush Wellman Inc.**  
**Facility ID: 0362000009**  
**Emissions Unit: Alloy LGS Pickle Line (P044)**

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Alloy LGS Pickle Line (P044)  
 Activity Description: Alloy Light Gauge Strip Pickle Line (P044)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
alloy light gauge strip pickle line with a packed-bed scrubber and a baghouse in series	OAC rule 3745-31-05(A)(3) (PTI #03-02405)	1.0 x E-04 tons Be/year See A.I.2.a.
	OAC rule 3745-17-11(B)	4.5 lbs particulate emissions (PE)/hour
	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**

- 2.a The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A) and 3745-17-11(B) .

**II Operational Restrictions**

1. The wet scrubber shall be designed and operated in accordance with the following requirements:
  - a. The pressure drop across the scrubber shall be continuously maintained within a range of 4.0 - 6.5 inches of water at all times while the emissions unit is in operation.
  - b. The scrubber water flow rate shall be continuously maintained at a value of not less than 12 gallons per minute at all times while the emissions unit is in operation.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy LGS Pickle Line (P044)

- c. The pH of the scrubber liquor shall be maintained within the range of 6.5 - 10.5.

### **III Monitoring and/or Recordkeeping**

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 baghouse 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 visible emissions.
2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber water flow rate while this emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
3. The permittee shall collect and record the following information on a daily basis for this emissions unit:
  - a. the pressure drop across the scrubber, in inches of water;
  - b. the scrubber water flow rate, in gallons/minute,
  - c. the pH of the scrubber liquor; and
  - d. a log of the downtime for any time periods when the capture system, control device or monitoring equipment were not working while the emissions unit was in operation.
4. The permittee shall maintain records of the annual operating hours for this emissions unit.

### **IV 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 baghouse stack serving this emissions unit

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy LGS Pickle Line (P044)

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.

2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within or above the required levels:
  - a. The static pressure drop across the scrubber.
  - b. The scrubber water flow rate.
  - c. The pH of the scrubber liquor.

The permittee shall submit deviation (excursion) reports in accordance with General Term and Condition A.I.c.ii of this permit.

3. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.

## **V Testing Requirements**

1. The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:
  - 1a. The emission testing shall be conducted within 12 months after issuance of this permit. Further testing shall be conducted in accordance with Engineering Guide #16.
  - 1b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for PE and Be.
  - 1c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates:
    - i. For Be: Methods 1-4 and 29 or 104 of 40 CFR Part 60, Appendix A.
    - ii. For PE: Methods 1-5 of 40 CFR Part 60, Appendix A.
  - 1d. The tests 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.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy LGS Pickle Line (P044)

2. 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).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

3. During the emission testing of this emissions unit, the following additional information shall be recorded:
  - a. the pressure drop across the particulate control devices;
  - b. the scrubber water flow rate;
  - c. the static pressure drop across the scrubber;
  - d. the pH of the scrubber liquor; and
  - e. the tons of product produced.

4. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following method(s):

- 4a. Emission Limitation:  
1.0 x E-04 ton Be/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the yearly allowable Be limitation based on the hourly results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 29 or 104, multiplied by the annual operating hours (section III.4), and then dividing by 2,000.

- 4b. Emission Limitation:  
4.5 lbs PE/hr

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy LGS Pickle Line (P044)

**Applicable Compliance Method:**

The permittee shall demonstrate compliance with the hourly allowable PE limitation based on the hourly results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5.

4c. **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 specified in OAC rule 3745-17-03(B)(1).

## **VI Miscellaneous Requirements**

1. The permittee was issued a permit to install in 1986 for this emissions unit. Also, the permittee was issued a Notice of Violation on November 26, 2002, for failing to address emissions of NO and PE and for failing to go through the requirements of New Source Review. This constituted a violation of the PSD rules of 40 CFR 52.21. [The permittee has since submitted a synthetic minor permit to install application and BACT analysis to achieve compliance with the applicable requirements in accordance with the USEPA's "Appropriate Injunctive Relief Policy".]

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Alloy LGS Pickle Line (P044)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<b><u>Operations, Property, and/or Equipment</u></b>	<b><u>Applicable Rules/Requirements</u></b>	<b><u>Applicable Emissions Limitations/Control Measures</u></b>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Induction Furnace #5 (P046)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Induction Furnace #5 (P046)  
 Activity Description: Alloy Scrap Melting - Induction Furnace #5

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
alloy induction furnace #5 with baghouse and cartridge filter in series	OAC rule 3745-31-05(A)(3) (PTI # 03-2504)	See A.I.2.a.
	OAC rule 3745-17-11(B)	55.8 lb particulate emission (PE)/hr (See A.I.2.b.)
	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**

- 2.a The requirements established pursuant to this rule are equivalent to the requirements of OAC rules 3745-17-11(B), and 3745-17-07(A).
- 2.b Emissions units P046, P064, P065, P066 and P067 are subject to the "grouping" provisions of OAC rule 3745-17-11(A)(3). Therefore, the PE from emissions units P046, P064, P065, P066 and P067, combined, shall not exceed 55.8 lbs/hr.

**II Operational Restrictions**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Induction Furnace #5 (P046)

### **III Monitoring and/or Recordkeeping**

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 visible emissions.

### **IV 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 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.

### **V Testing Requirements**

1. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 1a. Emission Limitation:  
55.8 lbs PE/hr

**Applicable Compliance Method:**

Compliance with the hourly PE limitation may be determined by multiplying the uncontrolled mass rate of PE, from emissions units P046, P064, P065, P066 and P067, combined, (492.8 lbs PE/hr) by a baghouse control factor of (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 baghouse control efficiency is assumed to be 99%.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Induction Furnace #5 (P046)

- 1b. 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 specified in OAC rule 3745-17-03(B)(1).

## **VI Miscellaneous Requirements**

1. The permittee was issued a PTI in 1986. The PTI required that the permittee comply with the beryllium standard [as specified in the NESHAP, 40 CFR paragraph 61.32(b)] of 0.01 ug Be/cubic meter (as a monthly average) . However, the PTI did not establish a limit for PE. Therefore, the permittee shall submit a complete permit to install application within 2 months following the issuance of this permit to establish a best available technology PE limitation.

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Induction Furnace #5 (P046)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Recycle Facility (P048)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Recycle Facility (P048)  
 Activity Description: Recycle Facility (Solvent Extraction, Solution Prep, Electrowinning)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
recycle facility (solvent extraction, solution prep, electrowinning) with four packed tower scrubbers	OAC rule 3745-31-05(A)(3) (PTI #03-2775)	0.006 ton beryllium (Be)/year
	OAC rule 3745-17-11(B)	See A.I.2.a.
	OAC rule 3745-17-07(A)	See A.I.2.b.

**2. Additional Terms and Conditions**

- 2.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.
- 2.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.

**II Operational Restrictions**

1. The wet scrubbers shall be designed and operated in accordance with the following requirements while the emissions unit is in operation:

Control Equipment	Equip ID #	pressure drop inches of water	scrubber water minimum flow rate

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Recycle Facility (P048)

Xerxes 736-Sp	C-46-2-1	1 - 4	145 gpm
Xerxes 735-P	C-46-3-1	1 - 3	100 gpm
Wet Plant ARCO	C-9-1-32	3 - 8	70 gpm
Xerxes 734-P	C-9-1-4	1 - 4	60 gpm

- The maximum annual operating hours for this emissions unit shall not exceed 6000.

### III Monitoring and/or Recordkeeping

- The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate(s) while this emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
- The permittee shall collect and record the following information each day for this emissions unit:
  - the pressure drop across each scrubber, in inches of water;
  - the scrubber water flow rate, in gallons/minute,
  - a log of the downtime for any time periods when the capture system, control device or monitoring equipment were not working while the emissions unit was in operation.
- The permittee shall maintain records of the annual operating hours for this emissions unit. The maximum annual operating hours shall be determined by averaging the operating hours over the three areas [(Soln Prep + Solvent Extraction + Electrowinning)/3].

### IV Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within or above the required levels:
  - The static pressure drop across each scrubber.
  - The scrubber water flow rate for each scrubber.

The permittee shall submit deviation (excursion) reports in accordance with General Term and Condition A.I.c.ii of this permit.

- The permittee shall submit annual reports that summarize the actual annual number of hours of operation for this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Recycle Facility (P048)

3. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.

## **V Testing Requirements**

1. The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:
  - 1a. The emission testing shall be conducted within 12 months after issuance of this permit. Further testing shall be conducted in accordance with Engineering Guide #16.
  - 1b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for Be.
  - 1c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates:
    - i. For Be: Methods 1-4 and 29 or 104 of 40 CFR Part 60, Appendix A.
  - 1d. The tests 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.
2. 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).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

3. During the emission testing of this emissions unit, the following additional information shall be recorded:

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Recycle Facility (P048)

- a. the pressure drop across each particulate control device;
  - b. the scrubber water flow rate for each control device; and
  - c. the tons of product produced.
4. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following method(s):

Emission Limitation:  
0.006 ton Be/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the yearly allowable Be limitation based on the hourly results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 29 or 104, multiplied by the annual operating hours (section III.4), and then dividing by 2,000.

## **VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Recycle Facility (P048)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name: Brush Wellman Inc.**  
**Facility ID: 0362000009**  
**Emissions Unit: NNS Iron & Copper Leaching (P051)**

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: NNS Iron & Copper Leaching (P051)  
 Activity Description: NNS Iron & Copper Leaching

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
NNS iron and copper leaching with packed tower scrubber	OAC rule 3745-31-05(A)(3) (PTI #03-3393)	7.3 lbs. nitrogen oxides (NOx)/hr, 32 tons NOx/yr
	OAC rule 3745-17-11(B)	See A.I.2.a.
	OAC rule 3745-17-07(A)	See A.I.2.b.

**2. Additional Terms and Conditions**

- 2.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.
- 2.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.

**II Operational Restrictions**

1. The packed tower scrubber shall be designed and operated in accordance with the following requirements:
  - a. The pressure drop across the scrubber shall be continuously maintained within a range of 1 - 5 inches of water at all times while the emissions unit is in operation.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** NNS Iron & Copper Leaching (P051)

- b. The scrubber water flow rate shall be continuously maintained at a value of not less than 1 gallon per minute at all times while the emissions unit is in operation.

### **III Monitoring and/or Recordkeeping**

1. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber water flow rate while this emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
2. The permittee shall collect and record the following information each day for this emissions unit:
  - a. the pressure drop across the scrubber, in inches of water;
  - b. the scrubber water flow rate, in gallons/minute; and
  - c. a log of the downtime for any time periods when the capture system, control device or monitoring equipment were not working while the emissions unit was in operation.

### **IV Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within or above the required levels:
  - a. The static pressure drop across the scrubber.
  - b. The scrubber water flow rate.

The permittee shall submit deviation (excursion) reports in accordance with General Term and Condition A.I.c.ii of this permit.

2. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.

### **V Testing Requirements**

1. The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:
  - 1a. The emission testing shall be conducted within 12 months after issuance of this permit. Further testing shall be conducted in accordance with Engineering Guide #16.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** NNS Iron & Copper Leaching (P051)

- 1b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for NO<sub>x</sub>.
- 1c. The following test method shall be employed to demonstrate compliance with the allowable mass emission rate for NO<sub>x</sub>: Methods 1-4 and 7 of 40 CFR Part 60, Appendix A.
- 1d. The tests 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.
2. 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).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

3. During the emission testing of this emissions unit, the following additional information shall be recorded:
  - i. the pressure drop across the scrubber;
  - ii. the scrubber water flow rate for each control device; and
  - iii. the tons of product produced.
4. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:

Emission Limitations:  
7.3 lbs NO<sub>x</sub>/hr; 32 tons NO<sub>x</sub>/yr

Applicable Compliance Method:

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** NNS Iron & Copper Leaching (P051)

The permittee shall demonstrate compliance with the hourly allowable NOx limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 7.

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

## **VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: NNS Iron & Copper Leaching (P051)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy Ind. Furnace #6 (P060)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Alloy Ind. Furnace #6 (P060)  
 Activity Description: Alloy Induction Furnace #6

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
alloy induction furnace #6 with baghouse and cartridge filter in series	OAC rule 3745-31-05(A)(3) (PTI # 03-4222)	See A.I.2.a.
	OAC rule 3745-17-11(B)	65 lbs particulate emission (PE)/hr (See A.I.2.b.)
	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**

- 2.a The requirements established pursuant to this rule are equivalent to the requirements of OAC rules 3745-17-11(B), and 3745-17-07(A) .
- 2.b Emissions units P046, P060, P064, P065, P066 and P067 are subject to the "grouping" provisions of OAC rule 3745-17-11(A)(3). Therefore, the PE from emissions units P046, P060, P064, P065, P066 and P067, combined, shall not exceed 65 lbs/hr.

**II Operational Restrictions**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy Ind. Furnace #6 (P060)

### **III Monitoring and/or Recordkeeping**

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 visible emissions.

### **IV 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 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.

### **V Testing Requirements**

1. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 1a. Emission Limitation:  
65 lbs PE/hr

**Applicable Compliance Method:**

Compliance with the hourly allowable PE limitation may be determined by multiplying 592.8 lbs/hr (the uncontrolled mass rate of emissions from P046, P060, P064, P065, P066 and P067, combined) 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 Methods 1-5 of 40 CFR Part 60, Appendix A.

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

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy Ind. Furnace #6 (P060)

- 1b. 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 specified in OAC rule 3745-17-03(B)(1).

## **VI Miscellaneous Requirements**

1. The permittee received a PTI in 1989 that required them to maintain 0.01 ug Be/cubic meter monthly average beryllium standard as specified in the NESHAP, 40 CFR paragraph 61.32(b). The PTI did not establish a limit for particulate emissions. The permittee shall submit a complete permit to install application within 2 months following the issuance of this permit, to establish a best available technology PE limitation.

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Alloy Ind. Furnace #6 (P060)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Powder/Chip Leaching Reactor (P061)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Powder/Chip Leaching Reactor (P061)  
 Activity Description: Powder/Chip Leaching Reactor

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
powder/chip leaching operations with packed bed scrubber	OAC rule 3745-31-05(A)(3) (PTI #03-5842)	See A.I.2.a.
	OAC rule 3745-17-11(B)	See A.I.2.b.
	OAC rule 3745-17-07(A)	See A.I.2.c.

**2. Additional Terms and Conditions**

- 2.a There were no emission limitations established pursuant to OAC rule 3745-31-05(A).
- 2.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.
- 2.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.

**II Operational Restrictions**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Powder/Chip Leaching Reactor (P061)

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Powder/Chip Leaching Reactor (P061)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: BeF Calciner (P062)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: BeF Calciner (P062)  
 Activity Description: Beryllium Fluoride Calciner

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
beryllium fluoride rotary calciner with venturi scrubber	OAC rule 3745-31-05(A)(3) (PTI #03-7421)	0.05 pound beryllium (Be)/hour; 0.22 ton Be/year; 0.26 pound particulate emissions (PE)/hour; 1.14 tons PE/year 9.35 pounds flouride/hour; 40.95 tons fluoride/year See A.I.2.a. and A.I.2.b.
	OAC rule 3745-17-11(B)	See A.I.2.c.
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
	OAC rule 3745-18-06(E)	Exempt (see A.I.2.d).
	OAC rule 3745-23-06(B) OAC rule 3745-21-08(B)	See A.I.2.e.

**2. Additional Terms and Conditions**

- 2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-23-06(B) and 3745-21-08(B).

**Facility Name: Brush Wellman Inc.**  
**Facility ID: 0362000009**  
**Emissions Unit: BeF Calciner (P062)**

- 2.b The permittee shall operate and maintain, in good working condition, the scrubbing system at all times to ensure that the scrubbing system is operating at a minimum control efficiency of 97%.
- 2.c The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC 3745-31-05(A)(3).
- 2.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).
- 2.e The permittee has satisfied the "latest available control techniques and operating practices required pursuant to OAC rule 3745-23-06 (B) and the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05 (A) (3) in Permit to Install 03-7421.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the 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 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

## II Operational Restrictions

- 1. The pressure drop across the scrubber (C-9-1-9) shall be continuously maintained within the range of 2 - 12 inches of water at all times while the emissions unit is in operation.
- 2. The gas scrubbing system water flow meters shall be set up as follows:

Flow Meter Location	Alarm Set Points (gpm)		
	Low	Design	High
*****			
Quench Water	31	35	
Primary PTS Sprays (recycled)	82	92	101
Secondary PTS Sprays (recycled)	82	92	101

PTS = Packed Tower Scrubber  
gpm = gallons per minute

## III Monitoring and/or Recordkeeping

- 1. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber's water flow rate while this emissions unit is

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** BeF Calciner (P062)

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

2. The permittee shall collect and record the following information for each day for this emissions unit:
  - a. the pressure drop across the scrubber, in inches of water, on an hourly basis;
  - b. the scrubber water flow rate, in gallons/minute, on an hourly basis ; and
  - c. a log of the downtime for any time periods when the capture system, control device or monitoring equipment were not working while the emissions unit was in operation.

#### **IV Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within or above the required levels:
  - a. The static pressure drop across the scrubber.
  - b. The scrubber water flow rate.

The permittee shall submit deviation (excursion) reports in accordance with the General Term and Condition A.I.c.ii of this permit.

2. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.

#### **V Testing Requirements**

1. The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:
  - 1a. This emissions unit is currently shut down. Emission testing shall be conducted within 60 days after restart. Further testing shall be conducted in accordance with Engineering Guide #16.
  - 1b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for Be, PE, and fluoride.
  - 1c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates:

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** BeF Calciner (P062)

- i. For Be: Methods 1-4 and 29 or 104 of 40 CFR Part 60, Appendix A.
  - ii. For PE: Methods 1-5 of 40 CFR Part 60, Appendix A.
  - iii. For fluoride: Methods 1-4 and 13 of 40 CFR Part 60, Appendix A.
- 1d. The tests 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.
  2. 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).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

3. During the emission testing of this emissions unit, the following additional information shall be recorded:
  - a. the water flow rates through the scrubber;
  - b. the pressure drop across the scrubber, in inches of water.
4. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following method(s):
  - 4a. Emission Limitations:  
0.05 pound Be/hour; 0.22 ton Be/year

**Applicable Compliance Method:**

The permittee shall demonstrate compliance with the hourly allowable Be limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 29 or 104.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** BeF Calciner (P062)

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 be ensured.

- 4b. Emission Limitations:  
0.26 pound PE/hour; 1.14 tons PE/year

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly allowable PE limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 5.

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 be ensured.

- 4c. Emission Limitations:  
9.35 pounds flouride/hour; 40.95 tons fluoride/year

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly allowable flouride limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Methods 1 through 4 and 13A.

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

- 4d. 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 specified in OAC rule 3745-17-03(B)(1).

## **VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: BeF Calciner (P062)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Induction Furnace #1 (P064)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Induction Furnace #1 (P064)  
 Activity Description: Alloy Induction Furnace #1

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
alloy induction furnace #1 with baghouse and cartridge filter in series	OAC rule 3745-17-11(B)	14.8 lbs particulate emission (PE)/hr
	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**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

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;

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Induction Furnace #1 (P064)

- 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 visible emissions.

#### **IV 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 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.

#### **V Testing Requirements**

- 1. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:

- 1a. 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%.

- 1b. 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 specified in OAC rule 3745-17-03(B)(1).

#### **VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Induction Furnace #1 (P064)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Induction Furnace #2 (P065)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Induction Furnace #2 (P065)  
 Activity Description: Alloy Induction Furnace #2

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
alloy induction furnace #2 with baghouse and cartridge filter in series	OAC rule 3745-31-05(A)(3) (PTI # 03-2135)	See A.I.2.a.
	OAC rule 3745-17-11(B)	46.3 lbs particulate emission (PE)/hr (See A.I.2.b.)
	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**

- 2.a The requirements established pursuant to this rule are equivalent to the requirements of OAC rules 3745-17-11(B) and 3745-17-07(A).
- 2.b Emissions units P064, P065, P066 and P067 are subject to the "grouping" provisions of OAC rule 3745-17-11(A)(3). Therefore, the PE from emissions units P064, P065, P066 and P067, combined, shall not exceed 46.3 lbs/hr.

**II Operational Restrictions**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Induction Furnace #2 (P065)

### **III Monitoring and/or Recordkeeping**

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 visible emissions.

### **IV 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 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.

### **V Testing Requirements**

1. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 1a. Emission Limitation:  
46.3 lbs PE/hr

**Applicable Compliance Method:**

Compliance with the hourly allowable PE limitation may be determined by multiplying 392.8 lbs/hr (the uncontrolled mass rate of emissions from P064, P065, P066 and P067, combined) 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%.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Induction Furnace #2 (P065)

- 1b. 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 specified in OAC rule 3745-17-03(B)(1).

## **VI Miscellaneous Requirements**

1. The permittee was issued a PTI in 1985. The PTI required that the permittee comply with the beryllium standard [as specified in the NESHAP, 40 CFR paragraph 61.32(b)] of 0.01 ug Be/cubic meter (as a monthly average) . However, the PTI did not establish a limit for PE. Therefore, the permittee shall submit a complete permit to install application within 2 months following the issuance of this permit to establish a best available technology PE limitation.

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Induction Furnace #2 (P065)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Induction Furnace #3 (P066)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Induction Furnace #3 (P066)  
 Activity Description: Alloy Induction Furnace #3

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
alloy induction furnace #3 with baghouse and cartridge filter in series	OAC rule 3745-31-05(A)(3) (PTI # 03-2135)	See A.I.2.a.
	OAC rule 3745-17-11(B)	46.3 lbs particulate emission (PE)/hr (See A.I.2.b.)
	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**

- 2.a The requirements established pursuant to this rule are equivalent to the requirements of OAC rules 3745-17-11(B) and 3745-17-07(A).
- 2.b Emissions units P064, P065, P066 and P067 are subject to the "grouping" provisions of OAC rule 3745-17-11(A)(3). Therefore, the PE from emissions units P064, P065, P066 and P067, combined, shall not exceed 46.3 lbs/hr.

**II Operational Restrictions**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Induction Furnace #3 (P066)

### **III Monitoring and/or Recordkeeping**

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 visible emissions.

### **IV 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 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.

### **V Testing Requirements**

1. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 1a. Emission Limitation:  
46.3 lbs PE/hr

**Applicable Compliance Method:**

Compliance with the hourly allowable PE limitation may be determined by multiplying 392.8 lbs/hr (the uncontrolled mass rate of emissions from P064, P065, P066 and P067, combined) 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%.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Induction Furnace #3 (P066)

- 1b. 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 specified in OAC rule 3745-17-03(B)(1).

## **VI Miscellaneous Requirements**

1. The permittee was issued a PTI in 1985. The PTI required that the permittee comply with the beryllium standard [as specified in the NESHAP, 40 CFR paragraph 61.32(b)] of 0.01 ug Be/cubic meter (as a monthly average) . However, the PTI did not establish a limit for PE. Therefore, the permittee shall submit a complete permit to install application within 2 months following the issuance of this permit to establish a best available technology PE limitation.

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Induction Furnace #3 (P066)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Induction Furnace #4 (P067)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Induction Furnace #4 (P067)  
 Activity Description: Alloy Induction Furnace #4

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
alloy induction furnace #4 with baghouse and cartridge filter in series	OAC rule 3745-31-05(A)(3) (PTI # 03-791)	See A.I.2.a.
	OAC rule 3745-17-11(B)	26.2 lbs particulate emission (PE)/hr (See A.I.2.b.)
	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**

- 2.a The requirements established pursuant to this rule are equivalent to the requirements of OAC rules 3745-17-11(B) and 3745-17-07(A).
- 2.b Emissions units P064 and P067 are subject to the "grouping" provisions of OAC rule 3745-17-11(A)(3). Therefore, the PE from emissions units P064 and P067, combined, shall not exceed 26.2 lbs/hr.

**II Operational Restrictions**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Induction Furnace #4 (P067)

### **III Monitoring and/or Recordkeeping**

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 visible emissions.

### **IV 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 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.

### **V Testing Requirements**

1. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 1a. Emission Limitation:  
26.2 lbs PE/hr  
  
Applicable Compliance Method:  
Compliance with the hourly allowable PE limitation may be determined by multiplying 196.4 lbs/hr (the uncontrolled mass rate of PE from P064 and P067, combined) 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%.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Induction Furnace #4 (P067)

- 1b. 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 specified in OAC rule 3745-17-03(B)(1).

## **VI Miscellaneous Requirements**

1. The permittee received a PTI in 1979 that required them to maintain 0.01 ug Be/cubic meter monthly average beryllium standard as specified in the NESHAP, 40 CFR paragraph 61.32(b). The PTI did not establish a limit for particulate emissions. The permittee shall submit a complete permit to install application within 2 months following the issuance of this permit, to establish a best available technology PE limitation.

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Induction Furnace #4 (P067)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Furnace Rebuild (P075)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Furnace Rebuild (P075)  
 Activity Description: Furnace Rebuild

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<b><u>Operations, Property, and/or Equipment</u></b>	<b><u>Applicable Rules/Requirements</u></b>	<b><u>Applicable Emissions Limitations/Control Measures</u></b>
cast shop #2 - furnace rebuild for alloy induction furnaces #7 and #8 (P082 and P083) with a baghouse and high efficiency filter in series	OAC 3745-31-05(A) (PTI #03-10823)	0.0015 grain particulate emissions (PE)/dry standard cubic foot (dscf)  1.1 lbs PE/hr and 4.8 tons PE/yr (for emissions units P075, P082, and P083, combined)  0.002 lb beryllium (Be)/hr and 0.009 ton Be/yr (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.  See A.I.2.a and A.I.2.b.  See A.I.2.c.  Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-11(B)	
	OAC rule 3745-17-07(A)	

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Furnace Rebuild (P075)

## **2. Additional Terms and Conditions**

- 2.a** Best available technology (BAT) has been determined to be use of a baghouse and high efficiency filter in series.
- 2.b** The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).
- 2.c** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC 3745-31-05(A)(3).

## **II Operational Restrictions**

None

## **III Monitoring and/or Recordkeeping**

- 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 visible emissions.
- 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 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;

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Furnace Rebuild (P075)

- 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 visible emissions.

#### **IV 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 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.
2. 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 particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

#### **V Testing Requirements**

1. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following method(s):

- 1a. Emission Limitation -  
0.0015 grain PE/dry standard cubic foot (dscf)

**Applicable Compliance Method:**

If required, the permittee shall demonstrate compliance with the grain loading limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5.

- 1b. Emission Limitations:  
1.1 lbs PE/hr; 4.8 tons PE/year

**Applicable Compliance Method:**

If required, the permittee shall demonstrate compliance with the hourly allowable PE limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Furnace Rebuild (P075)

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 be ensured.

- 1c. Emission Limitations:  
0.002 pound Be/hour; 0.009 ton Be/year

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the hourly allowable Be limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 29 or 104.

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 be ensured.

- 1d. 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 specified in OAC rule 3745-17-03(B)(1).

- 1e. Emission Limitation -  
Visible particulate fugitive emissions shall not exceed 0% opacity, as a six-minute average, from the building housing emissions units P075, P082, P083, P086, and P087.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance pursuant to the methods specified in OAC rule 3745-17-03(B)(3).

## **VI 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:
  - 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 condition IV.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.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Furnace Rebuild (P075)

The emergency scenarios and alternative operating scenarios will be evaluated to determine if additional testing and/or operational restrictions are required. If testing is necessary, the permittee shall follow the requirements of condition IV.1.

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Furnace Rebuild (P075)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Walking Reheat Furnace (P076)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Walking Reheat Furnace (P076)  
 Activity Description: Walking Bream Reheat Furnace

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
alloy/finish building 58.7 MMBtu/hr walking beam reheat furnace #1, with low NOx burners	OAC rule 3745-31-05(A)(5) (PTI #03-9105)	0.96 lb particulate emissions (PE)/hr (See A.I.2.a.)
		0.2 lb organic compounds (OC)/hr (See A.I.2.a.)
		2.5 lbs carbon monoxide (CO)/hr (See A.I.2.a.)
		0.42 lb sulfur dioxide (SO2)/hr (See A.I.2.a.)
		0.12 lb nitrogen oxides (NOx)/MMBtu 7.044 lbs NOx/hr (See A.I.2.a.)
		See A.I.2.b and A.I.2.c.
		See A.I.2.d.
	OAC rule 3745-18-06(E)	See A.I.2.d.
	OAC rule 3745-17-11(B)(1)	See A.I.2.b.
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Walking Reheat Furnace (P076)

See A.I.2.e.

OAC rule 3745-23-06(B)  
OAC rule 3745-21-08(B)

## **2. Additional Terms and Conditions**

- 2.a** Emissions from this emissions unit are attributed solely to natural gas combustion. These emission limits are based on AP-42 emission factors.
- 2.b** Best available technology (BAT) has been determined to be use of low NOx burners.
- 2.c** The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-23-06(B) and 3745-21-08(B).
- 2.d** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC 3745-31-05(A)(3).
- 2.e** The permittee has satisfied the "latest available control techniques and operating practices required pursuant to OAC rule 3745-23-06 (B) and the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05 (A) (3) in Permit to Install 03-9105.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the 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 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

## **II Operational Restrictions**

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

## **III Monitoring and/or Recordkeeping**

- 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.

## **IV 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.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Walking Reheat Furnace (P076)

## V Testing Requirements

1. The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:
  - 1a. The emission testing shall be conducted within 12 months after issuance of this permit. Further testing shall be conducted in accordance with Engineering Guide #16.
  - 1b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for NO<sub>x</sub>.
  - 1c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates:
    - i. For NO<sub>x</sub>: Methods 1-4 and 7 of 40 CFR Part 60, Appendix A.
  - 1d. The tests 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.
2. 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).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

3. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following method(s):
  - 3a. Emission Limitation:  
0.96 pound lb PE/hr

Applicable Compliance Method:

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Walking Reheat Furnace (P076)

The permittee may demonstrate compliance with the hourly allowable PE limitation by multiplying the emission factor of 1.9 lbs PE/mm cu. ft of natural gas [from AP-42, Table 1.4-2 (revised 7/98)] by the maximum natural gas consumption rate of 58,700 cu. ft./hr.

If required, the permittee shall demonstrate compliance with the PE limitation above pursuant to 40 CFR, Part 60, Appendix A, Methods 1 through 5.

- 3b. Emission Limitation:  
0.2 lb OC/hr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly allowable OC limitation by multiplying the emission factor of 5.5 lbs OC/mm cu. ft. of natural gas [from AP-42, Table 1.4-2 (revised 7/98)] by the maximum natural gas consumption rate of 58,700 cu. ft./hr.

If required, the permittee shall demonstrate compliance with the hourly allowable OC emission limitation pursuant to 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 18, 25, or 25A, as appropriate.

- 3c. Emission Limitation:  
2.5 lbs CO/hr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly allowable CO limitation by multiplying the emission factor of 84 lbs CO/mm cu. ft. of natural gas [from AP-42, Table 1.4-1 (revised 7/98)] by the maximum natural gas consumption rate of 58,700 cu.ft./hr.

If required, the permittee shall demonstrate compliance with the hourly allowable CO emission limitation pursuant to 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 10.

- 3d. Emission Limitation:  
0.42 lb SO<sub>2</sub>/hr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly allowable SO<sub>2</sub> limitation by multiplying the emission factor of 0.6 lbs SO<sub>2</sub>/mm cu.ft. of natural gas [from AP-42, Table 1.4-2 (revised 7/98)] by the maximum natural gas consumption rate of 58,700 cu. ft./hr.

If required, the permittee shall demonstrate compliance with the hourly allowable SO<sub>2</sub> emission limitation pursuant to 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 6.

- 3e. Emission Limitations:  
0.12 lb NO<sub>x</sub>/MMBtu; 7.044 lbs NO<sub>x</sub>/hr

Applicable Compliance Method:

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Walking Reheat Furnace (P076)

The permittee shall demonstrate compliance with the hourly allowable NO<sub>x</sub> limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 7.

The annual limitation was developed by multiplying the hourly limitation by 8760, and then dividing by 2,000. Therefore, provided compliance with the hourly **NO<sub>x</sub>** limitation is maintained, compliance with the annual **NO<sub>x</sub>** limitation shall be ensured.

- 3f. 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 specified in OAC rule 3745-17-03(B)(1).

## **VI Miscellaneous Requirements**

1. The permittee received permit to install 03-9105 on August 7, 1996. The PTI allowed the installation of this emissions unit and established CO and OC emission limitations calculated using the AP-42, natural gas emission factors. Since the issuance of this permit, the AP-42 emission factors for CO and OC were revised [AP-42 Section 1.4, Natural Gas Combustion (dated 7/98)]. Therefore, as the initial step for this emissions unit to achieve compliance with the applicable requirements, the permittee shall submit a written request for an administrative modification to the PTI and an updated Emissions Activities Category (EAC) form within 2 months following the issuance of this permit.

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Walking Reheat Furnace (P076)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Hot Strip Mill (P077)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Hot Strip Mill (P077)  
 Activity Description: Reversing Hot Strip Mill

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
alloy finish building reversing hot strip mill with baghouse and high efficiency cartridge filter in series	OAC rule 3745-31-05(A)(3) (PTI #03-11224)	0.041 lb particulate emissions (PE)/hour; 0.18 ton PE/year
		0.0032 lb Be/hour; 0.014 ton Be/year
		See A.I.2.a. and A.I.2.b.
	OAC rule 3745-17-11(B)	See A.I.2.c.
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, except as provided by rule.

**2. Additional Terms and Conditions**

- 2.a Best available technology (BAT) for this emissions unit has been determined to be use of a fabric filter and high efficiency cartridge filter.
- 2.b The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A) .
- 2.c The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC 3745-31-05(A)(3).

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Hot Strip Mill (P077)

## **II Operational Restrictions**

None

## **III Monitoring and/or Recordkeeping**

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 visible emissions.

## **IV 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 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.

## **V Testing Requirements**

1. The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:
  - 1a. The emission testing shall be conducted within 12 months after issuance of this permit. Further testing shall be conducted in accordance with Engineering Guide #16.
  - 1b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for PE and Be.
  - 1c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates:

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Hot Strip Mill (P077)

- i. For PE: Methods 1-5 of 40 CFR Part 60, Appendix A;
  - ii. For Be: Methods 1-4 and 29 or 104 of 40 CFR Part 60, Appendix A.
- 1d. The tests 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.
2. 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).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

3. During the emission testing of this emissions unit, the following additional information shall be recorded:
- a. the pressure drop across the particulate control devices.
4. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following method(s):
- 4a. Emission Limitations:  
0.041 lb PE/hr; 0.18 TPY PE

**Applicable Compliance Method:**

The permittee shall demonstrate compliance with the hourly allowable PE limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5.

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 be ensured.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Hot Strip Mill (P077)

4b. Emission Limitations:  
0.0032 lb Be/hr; 0.014 TPY Be

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly allowable Be limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 29 or 104.

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 be ensured.

4c. 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 specified in OAC rule 3745-17-03(B)(1).

## **VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Hot Strip Mill (P077)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Annealing/Pickling (P080)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Annealing/Pickling (P080)  
 Activity Description: Continuous Strip Annealing/Pickling

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
alloy finish building continuous strip annealing/pickling with two scrubbers and mist eliminator	OAC rule 3745-31-05(A)(3) (PTI #03-11224)	1.75 lbs/hr particulate emissions (PE) (as NaOH mist); 7.67 tons/yr PE (as NaOH mist)
		See A.I.2.a. and A.I.2. c.
	OAC rule 3745-17-11(B)	See A.I.2.b.
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

**2. Additional Terms and Conditions**

- 2.a Best available technology (BAT) for this emissions unit has been determined to be use of a venturi scrubber and mist eliminator.
- 2.b The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC 3745-31-05(A)(3).
2. c The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Annealing/Pickling (P080)

## **II Operational Restrictions**

1. The Xerxes 713-M packed tower scrubber shall be designed and operated in accordance with the following requirements:
  - a. The pressure drop across the scrubber shall be continuously maintained within a range of 0.5 - 3.5 inches of water at all times while the emissions unit is in operation.
  - b. The scrubber water flow rate shall be continuously maintained at a value of not less than 20 gallons per minute at all times while the emissions unit is in operation.
2. The Xerxes 735-M packed tower scrubber shall be designed and operated in accordance with the following requirements:
  - a. The pressure drop across the scrubber shall be continuously maintained within a range of 0.5 - 3.5 inches of water at all times while the emissions unit is in operation.
  - b. The scrubber water flow rate shall be continuously maintained at a value of not less than 70 gallons per minute at all times while the emissions unit is in operation.

## **III Monitoring and/or Recordkeeping**

1. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubbers and the scrubber water flow rates while this emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
2. The permittee shall collect and record the following information each day for this emissions unit:
  - a. the pressure drop across each scrubber, in inches of water, on a once/shift basis;
  - b. each scrubber water flow rate, in gallons/minute, on a once/shift basis; and
  - c. a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.

## **IV Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within or above the required levels:
  - a. The static pressure drop across the scrubber.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Annealing/Pickling (P080)

b. The scrubber water flow rate.

The permittee shall submit deviation (excursion) reports in accordance with the General Term and Condition A.I.c.ii of this permit.

2. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.

## **V Testing Requirements**

1. The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:
  - 1a. The emission testing shall be conducted within 12 months after issuance of this permit. Further testing shall be conducted in accordance with Engineering Guide #16.
  - 1b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE.
  - 1c. The following test method shall be employed to demonstrate compliance with the allowable mass emission rate:
    - i. For PE: Methods 1-5 of 40 CFR Part 60, Appendix A.
  - 1d. The tests 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.
2. 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).

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.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Annealing/Pickling (P080)

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).

3. During the emission testing of this emissions unit, the following additional information shall be recorded:

a. the pressure drop across the scrubbers, and

b. the scrubber water flow rates.

4. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following method(s):

4a. Emission Limitations:

1.75 lb/hr PE (as NaOH mist) and 7.67 tons/yr PE (as NaOH mist)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly allowable PE limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5.

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 be ensured.

4b. 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 specified in OAC rule 3745-17-03(B)(1).

## **VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Annealing/Pickling (P080)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Strip Finish Pickling (P081)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Strip Finish Pickling (P081)  
 Activity Description: Strip Finishing/Pickling

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
alloy finish building continuous strip annealing/pickling with two scrubbers and mist eliminator	OAC rule 3745-31-05(A)(3) (PTI #03-11224)	0.80 lb/hr particulate emissions (PE) (as NaOH and H2SO4 mist); 3.5 tons/yr PE (as NaOH and H2SO4 mist)
		See A.I.2.a. and A.I.2. c
	OAC rule 3745-17-11(B)	See A.I.2.b.
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

**2. Additional Terms and Conditions**

- 2.a Best available technology (BAT) for this emissions unit has been determined to be use of a venturi scrubber and mist eliminator.
- 2.b The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC 3745-31-05(A)(3).
- 2.c The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Strip Finish Pickling (P081)

## **II Operational Restrictions**

1. The Xerxes 713-M packed tower scrubber shall be designed and operated in accordance with the following requirements:
  - a. The pressure drop across the scrubber shall be continuously maintained within a range of 0.5 - 3.5 inches of water at all times while the emissions unit is in operation.
  - b. The scrubber water flow rate shall be continuously maintained at a value of not less than 10 gallons per minute at all times while the emissions unit is in operation.
2. The Xerxes 735-M packed tower scrubber shall be designed and operated in accordance with the following requirements:
  - a. The pressure drop across the scrubber shall be continuously maintained within a range of 0.5 - 3.5 inches of water at all times while the emissions unit is in operation.
  - b. The scrubber water flow rate shall be continuously maintained at a value of not less than 70 gallons per minute at all times while the emissions unit is in operation.

## **III Monitoring and/or Recordkeeping**

1. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubbers and the scrubber water flow rates while this emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
2. The permittee shall collect and record the following information each day for this emissions unit:
  - a. the pressure drop across each scrubber, in inches of water, ;
  - b. each scrubber water flow rate, in gallons/minute, on a once/shift basis ; and
  - c. a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.

## **IV Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within or above the required levels:
  - a. The static pressure drop across the scrubber.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Strip Finish Pickling (P081)

b. The scrubber water flow rate.

The permittee shall submit deviation (excursion) reports in accordance with the General Term and Condition A.I.c.ii of this permit.

2. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.

## **V Testing Requirements**

1. The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:
  - 1a. The emission testing shall be conducted within 12 months after issuance of this permit. Further testing shall be conducted in accordance with Engineering Guide #16.
  - 1b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE.
  - 1c. The following test method shall be employed to demonstrate compliance with the allowable mass emission rate:
    - i. For PE: Methods 1-5 of 40 CFR Part 60, Appendix A.
  - 1d. The tests 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.
2. 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).

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.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Strip Finish Pickling (P081)

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).

3. During the emission testing of this emissions unit, the following additional information shall be recorded:

a. the pressure drop across the scrubbers, and

b. the scrubber water flow rates.

4. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following method(s):

4a. Emission Limitations:

0.80 lb/hr PE (as NaOH mist) and 3.5 tons/yr PE (as NaOH mist)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly allowable PE limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5.

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 be ensured.

4b. 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 specified in OAC rule 3745-17-03(B)(1).

## **VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Strip Finish Pickling (P081)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy Induction Fce. #7 (P082)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Alloy Induction Fce. #7 (P082)  
 Activity Description: Alloy Induction Furnace #7

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
30-ton alloy electric induction melting/holding furnace #7 with baghouse and high efficiency filter in series	OAC 3745-31-05(A) (PTI #03-10823)	0.0015 grain particulate emissions (PE)/dry standard cubic foot (dscf)  1.1 lbs PE/hr and 4.8 tons PE/yr (for emissions units P075, P082, and P083, combined)  0.002 lb beryllium (Be)/hr and 0.009 ton Be/yr (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.
	OAC rule 3745-17-11(B)	See A.I.2.a and A.I.2.b.
	OAC rule 3745-17-07(A)	See A.I.2.c.  Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy Induction Fce. #7 (P082)

## **2. Additional Terms and Conditions**

- 2.a** Best available technology (BAT) has been determined to be use of a baghouse and high efficiency filter in series.
- 2.b** The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A) .
- 2.c** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC 3745-31-05(A)(3).

## **II Operational Restrictions**

None

## **III Monitoring and/or Recordkeeping**

- 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 visible emissions.
- 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 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;

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy Induction Fce. #7 (P082)

- 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 visible emissions.

#### **IV 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 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.
2. 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 particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

#### **V Testing Requirements**

1. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following method(s):

- 1a. Emission Limitation -  
0.0015 grain PE/dry standard cubic foot (dscf)

**Applicable Compliance Method:**

If required, the permittee shall demonstrate compliance with the grain loading limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5.

- 1b. Emission Limitations:  
1.1 lbs PE/hr; 4.8 tons PE/year

**Applicable Compliance Method:**

If required, the permittee shall demonstrate compliance with the hourly allowable PE limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy Induction Fce. #7 (P082)

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 be ensured.

- 1c. Emission Limitations:  
0.002 pound Be/hour; 0.009 ton Be/year

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the hourly allowable Be limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 29 or 104.

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 be ensured.

- 1d. 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 specified in OAC rule 3745-17-03(B)(1).

- 1e. Emission Limitation -  
Visible particulate fugitive emissions shall not exceed 0% opacity, as a six-minute average, from the building housing emissions units P075, P082, P083, P086, and P087.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance pursuant to the methods specified in OAC rule 3745-17-03(B)(3).

## **VI 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:
  - 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 condition IV.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.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy Induction Fce. #7 (P082)

The emergency scenarios and alternative operating scenarios will be evaluated to determine if additional testing and/or operational restrictions are required. If testing is necessary, the permittee shall follow the requirements of condition IV.1.

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Alloy Induction Fce. #7 (P082)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy Induction Fce. #8 (P083)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Alloy Induction Fce. #8 (P083)  
 Activity Description: Alloy Induction Furnace #8

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<b><u>Operations, Property, and/or Equipment</u></b>	<b><u>Applicable Rules/Requirements</u></b>	<b><u>Applicable Emissions Limitations/Control Measures</u></b>
30-ton alloy electric induction melting/holding furnace #8 with baghouse and high efficiency filter in series	OAC rule 3745-31-05(A) (PTI #03-10823)	0.0015 grain particulate emissions (PE)/dry standard cubic foot (dscf)  1.1 lbs PE/hr and 4.8 tons PE/yr (for emissions units P075, P082, and P083, combined)  0.002 lb beryllium (Be)/hr and 0.009 ton Be/yr (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.
	OAC rule 3745-17-11(B)	See A.I.2.a and A.I.2.b.
	OAC rule 3745-17-07(A)	See A.I.2.c.
		Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy Induction Fce. #8 (P083)

## **2. Additional Terms and Conditions**

- 2.a Best available technology (BAT) has been determined to be use of a baghouse and high efficiency filter in series.
- 2.b The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A) .
- 2.c The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 745-31-05(A)(3).

## **II Operational Restrictions**

None

## **III Monitoring and/or Recordkeeping**

- 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 visible emissions.
- 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 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;

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy Induction Fce. #8 (P083)

- 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 visible emissions.

#### **IV 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 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.
2. 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 particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

#### **V Testing Requirements**

1. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following method(s):

- 1a. Emission Limitation -  
0.0015 grain PE/dry standard cubic foot (dscf)

**Applicable Compliance Method:**

If required, the permittee shall demonstrate compliance with the grain loading limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5.

- 1b. Emission Limitations:  
1.1 lbs PE/hr; 4.8 tons PE/year

**Applicable Compliance Method:**

If required, the permittee shall demonstrate compliance with the hourly allowable PE limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy Induction Fce. #8 (P083)

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 be ensured.

- 1c. Emission Limitations:  
0.002 pound Be/hour; 0.009 ton Be/year

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the hourly allowable Be limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 29 or 104.

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 be ensured.

- 1d. 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 specified in OAC rule 3745-17-03(B)(1).

- 1e. Emission Limitation -  
Visible particulate fugitive emissions shall not exceed 0% opacity, as a six-minute average, from the building housing emissions units P075, P082, P083, P086, and P087.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance pursuant to the methods specified in OAC rule 3745-17-03(B)(3).

## **VI 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:
  - 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 condition IV.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.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy Induction Fce. #8 (P083)

The emergency scenarios and alternative operating scenarios will be evaluated to determine if additional testing and/or operational restrictions are required. If testing is necessary, the permittee shall follow the requirements of condition IV.1.

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Alloy Induction Fce. #8 (P083)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Cast Shop #2, Vacuum (P086)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Cast Shop #2, Vacuum (P086)  
 Activity Description: Cast Shop #2, Vacuum System

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
cast shop vacuum system #2, with primary and secondary filter particulate control in series	OAC rule 3745-31-05(A)(3) (PTI #03-10823)	0.000046 lb particulate emissions (PE)/hr and 0.0002 ton PE/yr  0.0000079 lb beryllium (Be)/hr and 0.000035 ton Be/yr  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.  See A.I.2.a. and A.I.2.b.  See A.I.2.c.  Visible PE shall not exceed 20%, opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-11(B)(1)	
	OAC rule 3745-17-07(A)	

**2. Additional Terms and Conditions**

- 2.a Best available technology (BAT) has been determined to be use of a baghouse and high efficiency filter in series.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Cast Shop #2, Vacuum (P086)

- 2.b The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A) .
- 2.c The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

## **II Operational Restrictions**

None

## **III Monitoring and/or Recordkeeping**

- 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 visible emissions.
- 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 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 emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Cast Shop #2, Vacuum (P086)

#### **IV 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 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.
2. 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 particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

#### **V Testing Requirements**

1. The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:
  - 1a. The emission testing shall be conducted within 12 months after issuance of this permit. Further testing shall be conducted in accordance with Engineering Guide #16.
  - 1b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for Be and PE.
  - 1c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates:
    - i. For Be: Methods 1-4 and 29 or 104 of 40 CFR Part 60, Appendix A.
    - ii. For PE: Methods 1-5 of 40 CFR Part 60, Appendix A.
  - 1d. The tests 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.
2. 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).

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Cast Shop #2, Vacuum (P086)

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

3. During the emission testing of this emissions unit, the following additional information shall be recorded:

a. the pressure drop across the particulate control devices.

4. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following method(s):

4a. Emission Limitations:

0.000046 lb PE/hr and 0.0002 ton PE/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly allowable PE limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 5.

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 be ensured.

4b. Emission Limitations:

0.0000079 lb Be/hr and 0.000035 ton Be/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly allowable Be limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 29 or 104.

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 be ensured.

4c. Emission Limitation -

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

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Cast Shop #2, Vacuum (P086)

Applicable Compliance Method:

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

4d. Emission Limitation -

Visible particulate fugitive emissions shall not exceed 0% opacity, as a six-minute average, from the building housing emissions units P075, P082, P083, P086, and P087.

Applicable Compliance Method:

The permittee shall demonstrate compliance based on the monitoring and recordkeeping in A.III.2. If required, the permittee shall demonstrate compliance pursuant to the methods specified in OAC rule 3745-17-03(B)(3).

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Cast Shop #2, Vacuum (P086)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Finish Mill #2, Vacuum (P087)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Finish Building Vacuum Cleaning (P087)  
 Activity Description: Alloy - Finish Building #2 Vacuum System

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<b><u>Operations, Property, and/or Equipment</u></b>	<b><u>Applicable Rules/Requirements</u></b>	<b><u>Applicable Emissions Limitations/Control Measures</u></b>
alloy finish building vacuum system #2 with a cyclone, primary and secondary particulate control in series	OAC rule 3745-31-05(A)(3) (PTI #03-10823)	0.000051 lb particulate emissions (PE)/hr and 0.00022 ton PE/yr
		0.0000087 lb beryllium (Be)/hr and 0.000038 ton Be/yr
		Visible particulate fugitive emissions shall not exceed 0% opacity, as a six minute average, from the building housing this emissions unit.
		See A.I.2.a. and A.I.2.b.
	OAC rule 3745-17-11(B)(1)	See A.I.2.c.
	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**

- 2.a Best available technology (BAT) has been determined to be use of a baghouse and high efficiency filter in series.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Finish Mill #2, Vacuum (P087)

- 2.b** The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A) .
- 2.c** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

## **II Operational Restrictions**

None

## **III Monitoring and/or Recordkeeping**

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 visible emissions.
  
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 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 emission incident; and

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Finish Mill #2, Vacuum (P087)

- e. any corrective actions taken to eliminate the visible emissions.

#### **IV 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 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.
2. 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 particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

#### **V Testing Requirements**

1. The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:
  - 1a. The emission testing shall be conducted within 12 months after issuance of this permit. Further testing shall be conducted in accordance with Engineering Guide #16.
  - 1b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for Be and PE.
  - 1c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates:
    - i. For Be: Methods 1-4 and 29 or 104 of 40 CFR Part 60, Appendix A.
    - ii. For PE: Methods 1-5 of 40 CFR Part 60, Appendix A.
  - 1d. The tests 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.
2. 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

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Finish Mill #2, Vacuum (P087)

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).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

3. During the emission testing of this emissions unit, the following additional information shall be recorded:
  - a. the pressure drop across the particulate control devices.
4. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following method(s):
  - 4a. Emission Limitations:  
0.000051 lb PE/hr and 0.00022 ton PE/yr

**Applicable Compliance Method:**

The permittee shall demonstrate compliance with the hourly allowable PE limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 5.

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 be ensured.

- 4b. Emission Limitations:  
0.0000087 lb Be/hr and 0.000038 ton Be/yr

**Applicable Compliance Method:**

The permittee shall demonstrate compliance with the hourly allowable Be limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 29 or 104.

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 be ensured.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Finish Mill #2, Vacuum (P087)

- 4c. 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 specified in OAC rule 3745-17-03(B)(1).

- 4d. Emission Limitation -  
Visible particulate fugitive emissions shall not exceed 0% opacity, as a six-minute average, from the building housing emissions units P075, P082, P083, P086, and P087.

Applicable Compliance Method:

The permittee shall demonstrate compliance based on the monitoring and recordkeeping in A.III.2. If required, the permittee shall demonstrate compliance pursuant to the methods specified in OAC rule 3745-17-03(B)(3).

## **VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Finish Mill #2, Vacuum (P087)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Boiler # 5 (Z001)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Boiler #5 (Z001)

Activity Description: Boiler #5, 12 mmBtu/hr, Ames Iron Works, Cat. No. AA3005 (B002)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
12 mmBtu/hour, natural gas/liquified petroleum gas (LPG)-fired boiler #5	OAC rule 3745-17-10(B)	0.02 lb particulate emissions (PE)/mmBtu of actual heat input
	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**

- 2.a OAC rule 3745-18-06 does not establish sulfur dioxide emission limitations for this emissions unit because the emissions unit only employs natural gas/LPG as fuel.

**II Operational Restrictions**

1. The permittee shall burn only natural gas and/or LPG in this emissions unit.

**III Monitoring and/or Recordkeeping**

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

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Boiler # 5 (Z001)

#### **IV Reporting Requirements**

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

#### **V Testing Requirements**

1. Compliance Methods Requirements: Compliance with the emission limitations in Section A.I of the terms and conditions of this permit shall be determined in accordance with the following methods:

- 1a. Emission Limitation: 0.020 lb PE/mmBtu of actual heat input

Applicable Compliance Method: When firing natural gas, the permittee may demonstrate compliance with this limitation by multiplying the maximum hourly natural gas consumption rate (mm cu. ft/hr) by the emission factor from AP-42, Table 1.4-2 (revised 7/98) of 1.9 lbs PE (filtrable)/mm cu. ft, and then dividing by the maximum heat input capacity of the boiler (mmBtu/hr).

When firing LPG, the permittee may demonstrate compliance with this limitation by multiplying the maximum hourly LPG consumption rate (gallons/hr) by the emission factor from AP-42, Table 1.5-1 (revised 10/96) of 0.6 lb PE (filtrable)/1000 gallons of LPG used, and then dividing by the maximum heat input capacity of the boiler (mmBtu/hr).

If required, compliance with the lb/mmBtu PE limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(9).

- 1b. Emission Limitation: Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method: If required, compliance with the visible emissions limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

#### **VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Boiler # 5 (Z001)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Grit Blaster (Z010)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Grit Blaster (Z010)  
 Activity Description: Furnace Rebuild Grit Blasting Operations (P001)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
furnace rebuild grit blasting operations with baghouse	OAC rule 3745-17-07(A)	See A.I.2.a.
	OAC rule 3745-17-11(B)	See A.I.2.b.

2. **Additional Terms and Conditions**

- 2.a 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.
- 2.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.

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Grit Blaster (Z010)

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Grit Blaster (Z010)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Roller Hearth Annealing Furnace (Z093)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Roller Hearth Annealing Furnace (Z093)  
 Activity Description: Heavy Gage Strip - Roller Hearth Annealing Furnace (P009)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
roller hearth annealing furnace (formerly part of P009)	OAC rule 3745-17-07(A)	See A.I.2.a.
	OAC rule 3745-17-11(B)	See A.I.2.b.
	OAC rule 3745-18-06(E)	58.6 lbs SO <sub>2</sub> /hr

2. **Additional Terms and Conditions**

- 2.a 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.
- 2.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.

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Roller Hearth Annealing Furnace (Z093)

**IV Reporting Requirements**

None

**V Testing Requirements**

1. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following method(s):

Emission Limitation:  
58.6 pounds SO<sub>2</sub>/hour

Applicable Compliance Method:  
The emissions unit is assumed to be in compliance with the SO<sub>2</sub> limitation above since the amount of SO<sub>2</sub> generated in this emissions unit is negligible.

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Roller Hearth Annealing Furnace (Z093)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Heavy Gage Vacuum System (Z095)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Heavy Gage Vacuum System (Z095)  
 Activity Description: Heavy Gage Strip - Vacuum Cleaning System (P009)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
heavy gage vacuum system with a cyclone and a baghouse (formerly part of P009)	OAC rule 3745-17-07(A)	See A.I.2.a.
	OAC rule 3745-17-11(B)	See A.I.2.b.

2. **Additional Terms and Conditions**

- 2.a 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.
- 2.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.

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Heavy Gage Vacuum System (Z095)

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Heavy Gage Vacuum System (Z095)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Alloy Calciner (Z100)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Alloy Calciner (Z100)  
 Activity Description: Alloy - Whiting Calciner (P010)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
alloy calciner with baghouse and cartridge filter in series, (formerly permitted as part of emissions unit P010)	OAC rule 3745-31-05(A)(3) (PTI #03-899)	See A.I.2.a.
	OAC rule 3745-17-11(B)	See A.I.2.b.
	OAC rule 3745-17-07(A)	See A.I.2.c.
	OAC rule 3745-18-06(E)	Exempt (See A.I.2.)
	OAC rule 3745-23-06(B) OAC rule 3745-21-08(B)	See A.I.2.

**2. Additional Terms and Conditions**

- 2.a The requirements of this rule also include compliance with the requirements of OAC rules 3745-23-06(B) and 3745-21-08(B).
- 2.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.
- 2.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.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy Calciner (Z100)

**2.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).

**2.e** The permittee has satisfied the "latest available control techniques and operating practices required pursuant to OAC rule 3745-23-06 (B) and the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05 (A) (3) in Permit to Install 03-899.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the 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 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Alloy Calciner (Z100)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Alloy Pelletizer (Z101)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Alloy Pelletizer (Z101)  
 Activity Description: Alloy - Whiting Pelletizer (P010)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
alloy pelletizer with baghouse and cartridge filter in series (formerly permitted as part of emissions unit P010)	OAC rule 3745-31-05(A)(3) (PTI #03-899)	See A.I.2.a.
	OAC rule 3745-17-11(B)	See A.I.2.a.
	OAC rule 3745-17-07(A)	See A.I.2.b.

**2. Additional Terms and Conditions**

- 2.a There were no emission limitations established pursuant to OAC rule 3745-31-05(A).
- 2.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.
- 2.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.

**II Operational Restrictions**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy Pelletizer (Z101)

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Alloy Pelletizer (Z101)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Master Alloy Vacuum Systems (Z103)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Master Alloy Vacuum Systems (Z103)  
 Activity Description: Alloy - Vacuum Systems for Whiting Arc Furnace, Calciner, Pelletizer, and Furnace Rebuild (P010)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<b><u>Operations, Property, and/or Equipment</u></b>	<b><u>Applicable Rules/Requirements</u></b>	<b><u>Applicable Emissions Limitations/Control Measures</u></b>
master alloy vacuum systems - vacuum cleaning systems for the whiting arc furnace, calciner, pelletizer, and furnace rebuild, with a cyclone and baghouse (formerly permitted as part of P010)	OAC rule 3745-31-05(A)(3) (PTI #03-899)	See A.I.2.a.
	OAC rule 3745-17-11(B)	See A.I.2.b.
	OAC rule 3745-17-07(A)	See A.I.2.c.

**2. Additional Terms and Conditions**

- 2.a There were no emission limitations established pursuant to OAC rule 3745-31-05(A).
- 2.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.
- 2.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.

**II Operational Restrictions**

*None*

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Master Alloy Vacuum Systems (Z103)

**III Monitoring and/or Recordkeeping**

*None*

**IV Reporting Requirements**

*None*

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Master Alloy Vacuum Systems (Z103)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Skin Machine Shop (Z181)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Skin Machine Shop (Z181)  
 Activity Description: Skin Machine Shop (P018)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
skin machine shop with two baghouses and a cartridge filter, (formerly part of P018)	OAC rule 3745-17-11(B)	See A.I.2.a.
	OAC rule 3745-17-07(A)	See A.I.2.b.

**2. Additional Terms and Conditions**

- 2.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.
- 2.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.

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Skin Machine Shop (Z181)

**IV Reporting Requirements**

*None*

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Skin Machine Shop (Z181)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name: Brush Wellman Inc.**  
**Facility ID: 0362000009**  
**Emissions Unit: Powdering Central Vacuum Systems (Z231)**

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Powdering Central Vacuum Systems (Z231)  
 Activity Description: PMP - Powder Central Vacuum Systems (P023)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
PMP - powdering central vacuum systems, with two cyclones and four baghouses (formerly part of emissions unit P023)	OAC rule 3745-17-11(B)	See A.I.2.a.
	OAC rule 3745-17-07(A)	See A.I.2.b.

**2. Additional Terms and Conditions**

- 2.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.
- 2.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.

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Powdering Central Vacuum Systems (Z231)

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Powdering Central Vacuum Systems (Z231)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Fluoride Decomposition Furnace #6 (Z260)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Fluoride Decomposition Furnace #6 (Z260)  
 Activity Description: Pebble - Fluoride Decomp. Induction Furnace #6 (P026)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
pebble oxide - fluoride decomposition induction furnace #6, with packed bed scrubber which controls all four decomposition furnaces (formerly part of P026)	OAC rule 3745-17-11(B)	8 lbs particulate emissions (PE)/hr (See A.I.2.a.)
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-18-06(E)	Exempt (See A.I.2.b).

**2. Additional Terms and Conditions**

- 2.a Emission units Z260, Z261, Z262 and Z263 are subject to the "grouping" provisions of OAC 3745-17-11(A)(3). Therefore, the PE from emission units Z260, Z261, Z262 and Z263, combined, shall not exceed 8 lbs PE/hr.
- 2.b 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).

**II Operational Restrictions**

1. The packed bed scrubber (C-9-1-14) shall be designed and operated in accordance with the following requirements:

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Fluoride Decomposition Furnace #6 (Z260)

- a. The pressure drop across the scrubber shall be continuously maintained within a range of 1 - 5 inches of water at all times while the emissions unit is in operation.
- b. The scrubber water flow rate shall be continuously maintained at a value of not less than 140 gallons per minute at all times while the emissions unit is in operation.

### **III Monitoring and/or Recordkeeping**

1. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber's water flow rate while this emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
2. The permittee shall collect and record the following information each day for this emissions unit:
  - a. the pressure drop across the scrubber, in inches of water;
  - b. the scrubber water flow rate, in gallons/minute; and
  - c. a log of the downtime for any time periods when the capture system, control device or monitoring equipment were not working while the emissions unit was in operation.

### **IV Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within or above the required levels:
  - a. The static pressure drop across the scrubber.
  - b. The scrubber water flow rate.

The permittee shall submit deviation (excursion) reports in accordance with General Term and Condition A.I.c.ii of this permit.

2. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.

### **V Testing Requirements**

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

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Fluoride Decomposition Furnace #6 (Z260)

- 1.a The emission testing shall be conducted within 60 days after restarting one or more of the fluoride decomposition furnaces. Thereafter, each time an additional furnace achieves the maximum production rate, the permittee shall retest the emission units.
- 1.b The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE.
- 1.c The following test method shall be employed during the emissions testing:
  - i. For PE: Methods 1 - 5 of 40 CFR Part 60, Appendix A.
- 1.d The tests shall be conducted while this emissions unit and emissions units Z261, Z262 and Z263 are operating at or near their maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA district office or local air agency.
2. 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).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

3. During the emission testing of this emissions unit, the following additional information shall be recorded:
  - a. the pressure drop across the scrubber, in inches of water; and
  - b. the scrubber water flow rate.
4. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 4.a Emission Limitation:  
8 lbs PE/hr

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Fluoride Decomposition Furnace #6 (Z260)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly allowable PE limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5.

4.b 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 specified in OAC rule 3745-17-03(B)(1).

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Fluoride Decomposition Furnace #6 (Z260)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Fluoride Decomposition Furnace #7 (Z261)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Fluoride Decomposition Furnace #7 (Z261)  
 Activity Description: Pebble - Fluoride Decomp. Induction Furnace #7 (P026)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
pebble oxide - fluoride decomposition induction furnace #7, with packed bed scrubber which controls all four decomposition furnaces (formerly part of P026)	OAC rule 3745-17-11(B)	8 lbs particulate emissions (PE)/hr (See A.I.2.a.)
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-18-06(E)	Exempt (See A.I.2.b)

**2. Additional Terms and Conditions**

- 2.a Emission units Z260, Z261, Z262 and Z263 are subject to the "grouping" provisions of OAC 3745-17-11(A)(3). Therefore, the PE from emission units Z260, Z261, Z262 and Z263, combined, shall not exceed 8 lbs PE/hr.
- 2.b 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).

**II Operational Restrictions**

1. The packed bed scrubber (C-9-1-14) shall be designed and operated in accordance with the following requirements:

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Fluoride Decomposition Furnace #7 (Z261)

- a. The pressure drop across the scrubber shall be continuously maintained within a range of 1 - 5 inches of water at all times while the emissions unit is in operation.
- b. The scrubber water flow rate shall be continuously maintained at a value of not less than 140 gallons per minute at all times while the emissions unit is in operation.

### **III Monitoring and/or Recordkeeping**

1. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber's water flow rate while this emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
2. The permittee shall collect and record the following information each day for this emissions unit:
  - a. the pressure drop across the scrubber, in inches of water;
  - b. the scrubber water flow rate, in gallons/minute; and
  - c. a log of the downtime for any time periods when the capture system, control device or monitoring equipment were not working while the emissions unit was in operation.

### **IV Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within or above the required levels:
  - a. The static pressure drop across the scrubber.
  - b. The scrubber water flow rate.

The permittee shall submit deviation (excursion) reports in accordance with General Term and Condition A.I.c.ii of this permit.

2. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.

### **V Testing Requirements**

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

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Fluoride Decomposition Furnace #7 (Z261)

- 1.a The emission testing shall be conducted within 60 days after restarting one or more of the fluoride decomposition furnaces. Thereafter, each time an additional furnace achieves the maximum production rate, the permittee shall retest the emission units.
- 1.b The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE.
- 1.c The following test method shall be employed during the emissions testing:
  - i. For PE: Methods 1 - 5 of 40 CFR Part 60, Appendix A.
- 1.d The tests shall be conducted while this emissions unit and emissions units Z260, Z262 and Z263 are operating at or near their maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA district office or local air agency.
2. 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).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

3. During the emission testing of this emissions unit, the following additional information shall be recorded:
  - a. the pressure drop across the scrubber, in inches of water; and
  - b. the scrubber water flow rate.
4. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 4.a Emission Limitation:  
8 lbs PE/hr

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Fluoride Decomposition Furnace #7 (Z261)

**Applicable Compliance Method:**

The permittee shall demonstrate compliance with the hourly allowable PE limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5.

**4.b 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 specified in OAC rule 3745-17-03(B)(1).

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Fluoride Decomposition Furnace #7 (Z261)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Fluoride Decomposition Furnace #8 (Z262)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Fluoride Decomposition Furnace #8 (Z262)  
 Activity Description: Pebble - Fluoride Decomp. Induction Furnace #8 (P026)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
pebble oxide - fluoride decomposition induction furnace #8, with packed bed scrubber which controls all four decomposition furnaces (formerly part of P026)	OAC rule 3745-17-11(B)	8 lbs particulate emissions (PE)/hr (See A.I.2.a.)
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-18-06(E)	Exempt (See A.I.2.b).

**2. Additional Terms and Conditions**

- 2.a Emission units Z260, Z261, Z262 and Z263 are subject to the "grouping" provisions of OAC 3745-17-11(A)(3). Therefore, the PE from emission units Z260, Z261, Z262 and Z263, combined, shall not exceed 8 lbs PE/hr.
- 2.b 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).

**II Operational Restrictions**

1. The packed bed scrubber (C-9-1-14) shall be designed and operated in accordance with the following requirements:

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Fluoride Decomposition Furnace #8 (Z262)

- a. The pressure drop across the scrubber shall be continuously maintained within a range of 1 - 5 inches of water at all times while the emissions unit is in operation.
- b. The scrubber water flow rate shall be continuously maintained at a value of not less than 140 gallons per minute at all times while the emissions unit is in operation.

### **III Monitoring and/or Recordkeeping**

1. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber's water flow rate while this emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
2. The permittee shall collect and record the following information each day for this emissions unit:
  - a. the pressure drop across the scrubber, in inches of water;
  - b. the scrubber water flow rate, in gallons/minute, ; and
  - c. a log of the downtime for any time periods when the capture system, control device or monitoring equipment were not working while the emissions unit was in operation.

### **IV Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within or above the required levels:
  - a. The static pressure drop across the scrubber.
  - b. The scrubber water flow rate.

The permittee shall submit deviation (excursion) reports in accordance with General Term and Condition A.I.c.ii of this permit.

2. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.

### **V Testing Requirements**

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

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Fluoride Decomposition Furnace #8 (Z262)

- 1.a The emission testing shall be conducted within 60 days after restarting one or more of the fluoride decomposition furnaces. Thereafter, each time an additional furnace achieves the maximum production rate, the permittee shall retest the emission units.
- 1.b The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE.
- 1.c The following test method shall be employed during the emissions testing:
  - i. For PE: Methods 1 - 5 of 40 CFR Part 60, Appendix A.
- 1.d The tests shall be conducted while this emissions unit and emissions units Z260, Z261 and Z263 are operating at or near their maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA district office or local air agency.
2. 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).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

3. During the emission testing of this emissions unit, the following additional information shall be recorded:
  - a. the pressure drop across the scrubber, in inches of water; and
  - b. the scrubber water flow rate.
4. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 4.a Emission Limitation:  
8 lbs PE/hr

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Fluoride Decomposition Furnace #8 (Z262)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly allowable PE limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5.

4.b 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 specified in OAC rule 3745-17-03(B)(1).

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Fluoride Decomposition Furnace #8 (Z262)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Fluoride Decomposition Furnace #9 (Z263)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Fluoride Decomposition Furnace #9 (Z263)  
 Activity Description: Pebble - Fluoride Decomp. Induction Furnace #9 (P026)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
pebble oxide - fluoride decomposition induction furnace #9, with a packed bed scrubber (scrubber C-9-1-14) which controls all four decomposition furnaces (formerly part of P026)	OAC rule 3745-17-11(B)	8 lbs particulate emissions (PE)/hr (See A.I.2.a.)
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-18-06(E)	Exempt (See A.I.2.b).

2. **Additional Terms and Conditions**

- 2.a Emission units Z260, Z261, Z262 and Z263 are subject to the "grouping" provisions of OAC 3745-17-11(A)(3). Therefore, the PE from emission units Z260, Z261, Z262 and Z263, combined, shall not exceed 8 lbs PE/hr.
- 2.b 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).

**II Operational Restrictions**

1. The packed bed scrubber (C-9-1-14) shall be designed and operated in accordance with the following requirements:

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Fluoride Decomposition Furnace #9 (Z263)

- a. The pressure drop across the scrubber shall be continuously maintained within a range of 1 - 5 inches of water at all times while the emissions unit is in operation.
- b. The scrubber water flow rate shall be continuously maintained at a value of not less than 140 gallons per minute at all times while the emissions unit is in operation.

### **III Monitoring and/or Recordkeeping**

1. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber's water flow rate while this emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
2. The permittee shall collect and record the following information each day for this emissions unit:
  - a. the pressure drop across the scrubber, in inches of water;
  - b. the scrubber water flow rate, in gallons/minute, ; and
  - c. a log of the downtime for any time periods when the capture system, control device or monitoring equipment were not working while the emissions unit was in operation.

### **IV Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within or above the required levels:
  - a. The static pressure drop across the scrubber.
  - b. The scrubber water flow rate.

The permittee shall submit deviation (excursion) reports in accordance with General Term and Condition A.I.c.ii of this permit.

2. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.

### **V Testing Requirements**

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

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Fluoride Decomposition Furnace #9 (Z263)

- 1.a The emission testing shall be conducted within 60 days after restarting one or more of the fluoride decomposition furnaces. Thereafter, each time an additional furnace achieves the maximum production rate, the permittee shall retest the emission units.
- 1.b The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE.
- 1.c The following test method shall be employed during the emissions testing:
  - i. For PE: Methods 1 - 5 of 40 CFR Part 60, Appendix A.
- 1.d The tests shall be conducted while this emissions unit and emissions units Z260, Z261 and Z262 are operating at or near their maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA district office or local air agency.
2. 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).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

3. During the emission testing of this emissions unit, the following additional information shall be recorded:
  - a. the pressure drop across the scrubber, in inches of water; and
  - b. the scrubber water flow rate.
4. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 4.a Emission Limitation:  
8 lbs PE/hr

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Fluoride Decomposition Furnace #9 (Z263)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly allowable PE limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5.

4.b 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 specified in OAC rule 3745-17-03(B)(1).

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Fluoride Decomposition Furnace #9 (Z263)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name: Brush Wellman Inc.**  
**Facility ID: 0362000009**  
**Emissions Unit: Reduction Furnace #1 (Z264)**

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Reduction Furnace #1 (Z264)  
 Activity Description: Pebble - Reduction Furnace #1 (P026)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
pebble oxide - reduction furnace #1 with a wet venturi, four wet scrubbers, and two wet cyclones (formerly part of P026)	OAC rule 3745-17-11(B)	See A.I.2.a.
	OAC rule 3745-17-07(A)	See A.I.2.b.
	OAC rule 3745-18-06(E)	Exempt (See A.I.2.c).

**2. Additional Terms and Conditions**

- 2.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.
- 2.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.
- 2.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).

**II Operational Restrictions**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Reduction Furnace #1 (Z264)

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Reduction Furnace #1 (Z264)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Reduction Furnace #2 (Z265)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Reduction Furnace #2 (Z265)  
 Activity Description: Pebble - Reduction Furnace #2 (P026)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
pebble oxide - reduction furnace #2 with a wet venturi, four wet scrubbers, and two wet cyclones (formerly part of P026)	OAC rule 3745-17-11(B)	See A.I.2.a.
	OAC rule 3745-17-07(A)	See A.I.2.b.
	OAC rule 3745-18-06(E)	Exempt (see A.I.2.c)

**2. Additional Terms and Conditions**

- 2.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.
- 2.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.
- 2.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).

**II Operational Restrictions**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Reduction Furnace #2 (Z265)

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Reduction Furnace #2 (Z265)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Reduction Furnace #3 (Z266)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Reduction Furnace #3 (Z266)  
 Activity Description: Pebble - Reduction Furnace #3 (P026)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
pebble oxide - reduction furnace #3 with a wet venturi, four wet scrubbers, and two wet cyclones (formerly part of P026)	OAC rule 3745-17-11(B)	See A.I.2.a.
	OAC rule 3745-17-07(A)	See A.I.2.b.
	OAC rule 3745-18-06(E)	Exempt (see A.I.2.c).

**2. Additional Terms and Conditions**

- 2.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.
- 2.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.
- 2.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).

**II Operational Restrictions**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Reduction Furnace #3 (Z266)

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Reduction Furnace #3 (Z266)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Reduction Furnace #4 (Z267)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Reduction Furnace #4 (Z267)  
 Activity Description: Pebble - Reduction Furnace #4 (P026)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
pebble oxide - reduction furnace #4 with a wet venturi, four wet scrubbers, and two wet cyclones (formerly part of P026)	OAC rule 3745-17-11(B)	See A.I.2.a.
	OAC rule 3745-17-07(A)	See A.I.2.b.
	OAC rule 3745-18-06(E)	Exempt (see A.I.2.c)

**2. Additional Terms and Conditions**

- 2.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.
- 2.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.
- 2.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).

**II Operational Restrictions**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Reduction Furnace #4 (Z267)

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Reduction Furnace #4 (Z267)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Pebble Plant Material Handling (Z268)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Pebble Plant Material Handling (Z268)  
 Activity Description: Pebble - Material Handling - Hammer Mill, Ball Mill, Screening, Thickening, Treating, and Pebble Cleaning (P026)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
pebble plant material handling with packed tower scrubber, which also controls emissions from P021, P022, P026, and P063 (formerly part of emissions unit P026)	OAC rule 3745-17-07(A)	See A.I.2.a.
	OAC rule 3745-17-11(B)	See A.I.2.b.
	OAC rule 3745-21-07(G)	Exempt (see A.I.2.c)

**2. Additional Terms and Conditions**

- 2.a 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.
- 2.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.
- 2.c This emissions unit was installed prior to February 15, 1972. Therefore, there are no applicable regulations/emission limitations for organic compounds for this emissions unit.

**II Operational Restrictions**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Pebble Plant Material Handling (Z268)

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Pebble Plant Material Handling (Z268)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Investment Vacuum Casting (Z820)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Investment Vacuum Casting (Z820)  
 Activity Description: PMP - Investment Vacuum Casting (P082)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
PMP - investment vacuum casting process with baghouse and cartridge filter in series (formerly identified as emissions unit P082)	OAC rule 3745-31-05(A)(3) (PTI #03-09194)	0.02 lb PM10/hr and 0.0876 tons PM10/yr
		0.006 lb Be/hr and 0.026 tons Be/yr
		See A.I.2.a. and A.I.2.b.
	OAC rule 3745-17-11(B)	See A.I.2.c.
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-18-06(E)	Exempt (see A.I.2.d).

**2. Additional Terms and Conditions**

- 2.a BAT for this emissions unit has been determined to be the use of a fabric and cartridge filters.
- 2.b The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A) .
- 2.c The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC 3745-31-05(A)(3).

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Investment Vacuum Casting (Z820)

2.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).

2.e All PM is considered PM10.

## **II Operational Restrictions**

None

## **III Monitoring and/or Recordkeeping**

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 visible emissions.

## **IV 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 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.

## **V Testing Requirements**

1. The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:
  - 1.a The emission testing shall be conducted within 12 months after issuance of this permit and, thereafter, in accordance with Engineering Guide 16.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Investment Vacuum Casting (Z820)

- 1.b The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for PM10 and Be.
- 1.c The following test method shall be employed to demonstrate compliance with the allowable mass emission rate:
  - i. For PE: Methods 1-5 of 40 CFR Part 60, Appendix A, including the back half of the sampling train or Methods 201/201A and 202 of 40 CFR Part 51, Appendix M..
  - ii. For Be: Methods 1 through 4 and 29 or 104 of 40 CFR, Part 60, Appendix A.
- 1.d The tests shall be conducted while this emissions unit is operating at or near their maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA district office or local air agency.
2. 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).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

3. During the emission testing of this emissions unit, the following additional information shall be recorded:
  - a. the pressure drop across the baghouses, in inches of water.
4. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 4a. Emission Limitations:  
0.02 lb PM10/hr and 0.0876 ton PM10/yr

Applicable Compliance Method:

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Investment Vacuum Casting (Z820)

The permittee shall demonstrate compliance with the hourly allowable PE limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5.

The annual limitation was developed by multiplying the hourly limitation by 8760, and then dividing by 2,000. Therefore, provided compliance with the hourly PM10 limitation is maintained, compliance with the annual PM10 limitation shall be ensured.

- 4b. Emission Limitations:  
0.006 pound Be/hour and 0.026 ton Be/year

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly allowable Be limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 29 or 104.

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 be ensured.

- 4c. 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 specified in OAC rule 3745-17-03(B)(1).

## **VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Investment Vacuum Casting (Z820)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Vacuum System Cast Shop # 1 (Z958)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Vacuum System Cast Shop #1 (Z958)  
 Activity Description: Vacuum Cleaning System - Cast Shop #1 - Furnaces 5,6

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
vacuum system cast shop #1 - furnaces 5 & 6, with two cyclones/multi-clones, and six baghouses	OAC rule 3745-17-11(B)	See A.I.2.a.
	OAC 3745-17-07(A)	See A.I.2.b.
	OAC rule 3745-18-06(E)	Exempt (see A.I.2.c)

**2. Additional Terms and Conditions**

- 2.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.
- 2.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.
- 2.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).

**II Operational Restrictions**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Vacuum System Cast Shop # 1 (Z958)

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Vacuum System Cast Shop # 1 (Z958)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None



State of Ohio Environmental Protection Agency

Street Address:

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

TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

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

11/18/03

**RE: Proposed Title V Chapter 3745-77 Permit  
03-62-00-0009  
Brush Wellman Inc.**

Attn: Genevieve Damico AR-18J  
United States Environmental Protection Agency  
Region V  
77 West Jackson Blvd.  
Chicago, IL 60604-3590

Dear Ms. Damico:

The proposed issuance of the Title V permit for Brush Wellman Inc., has been created in Ohio EPA's State Air Resources System (STARS) on 11/18/03, for review by USEPA. This proposed action is identified in STARS as  3-Title V Proposed Permit T+C covering the facility specific terms and conditions, and  Title V Proposed Permit covering the general terms and conditions. This proposed permit will be processed for issuance as a final action after forty-five (45) days from USEPA's receipt of this certified letter if USEPA does not object to the proposed permit. Please contact me at (614) 644-3631 by the end of the forty-five (45) day review period if you wish to object to the proposed permit.

Very truly yours,

  
Michael W. Ahern, Supervisor  
Field Operations and Permit Section  
Division of Air Pollution Control

cc: Northwest District Office  
File, DAPC PMU



State of Ohio Environmental Protection Agency

PROPOSED TITLE V PERMIT

Issue Date: 11/18/03

Effective Date: To be entered upon final issuance

Expiration Date: To be entered upon final issuance

This document constitutes issuance of a Title V permit for Facility ID: 03-62-00-0009 to:
Brush Wellman Inc.
14710 W. Portage River South Road
1/4 mile east of SR 590
Harris Township, OH 43416-9502

Emissions Unit ID (Company ID)/Emissions Unit Activity Description

Table with 3 columns: Emissions Unit ID (Company ID), Emissions Unit Activity Description, and Emissions Unit Activity Description. Rows include units like B002, B004, F001, L001, P001, P010, P013, P015, P018, P021, P022, P026, P033, P037, P038, P042, P043, P044, P046, P048, P051, P060, P061, P062, P064, P065, P066, P067, P075, P076, P077, P080, P081, P082, P083, P086, P087, Z001, Z010, Z093, Z095, Z100, Z101, Z103, Z181, Z231, and Z260.

(P026)	Z264 (Reduction Furnace #1 ) Pebble - Reduction Furnace #1 (P026)	Screening, Thickening, Treating, and Pebble Cleaning (P026)
Z261 (Fluoride Decomposition Furnace # 7) Pebble - Fluoride Decomp. Induction Furnace #7 (P026)	Z265 (Reduction Furnace #2 ) Pebble - Reduction Furnace #2 (P026)	Z820 (Investment Vacuum Casting) PMP - Investment Vacuum Casting Process (P082)
Z262 (Fluoride Decomposition Furnace # 8) Pebble - Fluoride Decomp. Induction Furnace #8 (P026)	Z266 (Reduction Furnace #3 ) Pebble - Reduction Furnace #3 (P026)	Z958 (Vacuum System Cast Shop #1) Vacuum Cleaning System - Cast Shop #1 - Furnaces 5,6
Z263 (Fluoride Decomposition Furnace # 9) Pebble - Fluoride Decomp. Induction Furnace #9 (P026)	Z267 (Reduction Furnace #4) Pebble - Reduction Furnace #4 (P026)	
	Z268 (Pebble Plant Material Handling ) Pebble - Material Handling - Hammer Mill, Ball Mill,	

You will be contacted approximately eighteen (18) months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency listed below. 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. 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, provided that a complete renewal application is submitted no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

Described below is the current Ohio EPA District Office or local air agency that is responsible for processing and administering your Title V permit:

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

## OHIO ENVIRONMENTAL PROTECTION AGENCY

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Christopher Jones  
Director

## PART I - GENERAL TERMS AND CONDITIONS

### A. *State and Federally Enforceable Section*

#### 1. **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 A.III of Part III of this Title V permit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

- i. The date, place (as defined in the permit), and time of sampling or measurements.
- ii. The date(s) analyses were performed.
- iii. The company or entity that performed the analyses.
- iv. The analytical techniques or methods used.
- v. The results of such analyses.
- vi. The operating conditions existing at the time of sampling or measurement.  
*(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 recordings for 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:

- i. **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 General Term and Condition A.1.c.ii below; and each report shall cover the previous calendar quarter.

In accordance with OAC rule 3745-15-06, a malfunction constitutes a violation of an emission limitation (or control requirement) and, therefore, 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 scheduled maintenance, 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))*

- ii. **Except as may otherwise be provided in the terms and conditions for a specific emissions unit, i.e., in Section A.IV of Part III of this Title V permit or, in some cases, in Part II 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 promptly made to the appropriate Ohio EPA District Office or local air agency. 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 reports shall satisfy the requirements (in part) 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. OAC rule 3745-77-07(A)(3)(c) is not fully satisfied until the permittee addresses all other deviations of the federally enforceable requirements specified in the permit.

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 overrides the reporting requirements specified in this General 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 the requirements (in part) 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 General Term and Condition.

See B.6 below if no deviations occurred during the quarter.

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

- iii. **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 General Term and Condition A.1.c.ii above shall be submitted in the following manner:**

Written reports that identify all other deviations of the federally enforceable requirements contained in this permit, including the monitoring, record keeping, and reporting requirements, which are not reported in accordance with General Term and Condition A.1.c.ii above shall be

submitted to the appropriate Ohio EPA District Office or local air agency by January 31 and July 31 of each year; and each report shall cover the previous six calendar months.

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 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 General Term and Condition A.1.c.ii 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))*

- iv. Each written report shall be signed by a responsible official certifying that, "based on information and belief formed after reasonable inquiry, the statements and information in the report (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete."

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

- v. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

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

## 2. **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 General Term and Condition A.1.c.i above.

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

## 3. **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))*

## 4. **Title IV Provisions**

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

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

**5. Severability Clause**

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

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

**6. General Requirements**

- a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.
- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with A.10 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.

*(Authority for term: OAC rule 3745-77-07(A)(7))*

**7. Fees**

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78.

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

**8. 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))*

**9. 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 general terms and conditions shall apply to all operating scenarios authorized in this permit.

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

**10. 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))*

**11. 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))*

**12. 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 official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
  - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
  - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.
  - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
  - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.
- 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 appropriate Ohio EPA District Office or local air agency) and the Administrator of the U.S. EPA in the following manner and with the following content:
  - i. 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.
  - ii. Compliance certifications shall include the following:
    - (a) An identification of each term or condition of this permit that is the basis of the certification.
    - (b) The permittee's current compliance status.
    - (c) Whether compliance was continuous or intermittent.
    - (d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.
    - (e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.
  - iii. 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))*

### **13. 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))*

### **14. 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 appropriate Ohio EPA District Office or local air agency 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 appropriate District Office of the Ohio EPA or local

air agency 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))

**15. 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))

**16. 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. 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))

**17. 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 Fed. Reg. 8314, Feb. 24, 1997), in the context of any future proceeding.

(This term is provided for informational purposes only.)

**18. Insignificant Activities**

Each insignificant activity that has one or more applicable requirements shall comply with those applicable requirements.

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

**19. 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))*

**20. 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))*

**21. 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 by the responsible official of the date on which the emissions unit was permanently shut down. Authorization to operate the affected part or activity of the stationary source shall cease upon the date certified by the responsible official that the emissions unit was permanently shut down.

If 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 monitoring, record keeping, reporting, or testing 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.

No emissions unit certified 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.

**B. State Only Enforceable Section**

**1. Reporting Requirements Related to Monitoring and Record Keeping Requirements**

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 the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (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 appropriate Ohio EPA District Office or local air agency. 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, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

**2. Records Retention Requirements**

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.

**3. 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.

**4. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. 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).

**5. Permit Transfers**

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

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

If no 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 General Term and Condition A.1.c.ii;
- 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 potentials to emit; and
- c. where the company's responsible official has certified that an emissions unit has been permanently shut down.

## Part II - Specific Facility Terms and Conditions

### A. State and Federally Enforceable Section

1. The ambient concentration of Be in the vicinity of the facility shall not exceed 0.01 micrograms (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 properly operate and maintain control equipment and implement control measures for all Be emitting emissions units at the facility.
2. 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.
3. 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

The collocated monitors shall be at the highest reading sites per 40 CFR, Part 58.

Ohio EPA reserves the option to perform quality assurance audits on the monitors upon at least a fourteen-day notice ahead of time to the permittee.

4. The following insignificant emissions units are located at this facility:

B001 (natural gas indirect heaters)  
B003 (boiler #1)  
F002 (solid waste/Be landfill)(PTI # 03-7273)  
G001 (fuel dispensing facility)(PTI # 03-7084)  
P003 (central maintenance shop)  
P004 (ceramic spray dryer)  
P005 (control powder hood)  
P006 (laundry)  
P007 (alloy met lab)  
P009 (heavy gage weld & edge trimmer)  
P011 (cast shop auxiliary operations)(PTI # 03-8183)  
P012 (extrusion press)  
P014 (PMP - brake shop)  
P016 (Be special products)  
P017 (die preparation)  
P019 (vacuum hot press furnace operations)  
P023 (ball mill process)  
P024 (extraction scrap dissolving)  
P027 (extraction/oxide GC salt)  
P025 (pebble bagging)  
P029 (hot strip mill #1)  
P030 (heavy gage car bottom hearth)  
P034 (RBT rod conditioning station)  
P035 (RBT abrasive cropping saw)  
P039 (alloy light gauge strip annealer)  
P045 (Be & Cu recovery process)  
P047 (dross separator)  
P049 ® & D metallurgy lab)(PTI # 03-3322)  
P050 (NNS loading/unloading)(PTI # 03-3322)  
P052 (industrial waste water treatment plant)(PTI # 03-3647)  
P053 (light gage slitter line)(PTI # 03-3924)  
P054 (BeCu dross mill)(PTI # 03-3961)  
P055 (NNS Be powder handling hood)(PTI # 03-4162)  
P057 (alloy equipment repair facility)(PTI # 03-5176)  
P058 (decontamination area)(PTI # 03-5176)  
P063 (pmp atomization)(PTI # 03-6382)  
P069 (alloy shot blaster)(PTI # 03-8367)  
P070 (alloy plate saw #2)(PTI # 03-8220)  
P078 (cold rolling mill #2)(PTI # 03-11224)  
P079 (Aqueous Strip Cleaner)(PTI # 03-9105)  
P088 (finish building slab mill #2)(PTI # 03-11224)  
Z020 (natural gas heater - 6.5 MMBTU/hr)  
Z021 (natural gas heater - 6.5 MMBTU/hr)

Z022 (natural gas heater - 6.5 MMBTU/hr)  
Z023 (natural gas heater - 6.5 MMBTU/hr)  
Z024 (natural gas heater - 6.5 MMBTU/hr)  
Z025 (natural gas heater - 6.5 MMBTU/hr)  
Z026 (natural gas heater - 6.5 MMBTU/hr)  
Z027 (natural gas heater - 6.5 MMBTU/hr)  
Z028 (natural gas heater - 6.5 MMBTU/hr)  
Z029 (natural gas heater - 6.5 MMBTU/hr)  
Z030 (natural gas heater - 6.5 MMBTU/hr)  
Z031 (natural gas heater - 5.2 MMBTU/hr)  
Z032 (natural gas heater - 5 MMBTU/hr)  
Z033 (natural gas heater - 5 MMBTU/hr)  
Z034 (natural gas heater - 4.7 MMBTU/hr)  
Z035 (natural gas heater - 4.2 MMBTU/hr)  
Z036 (natural gas heater - 4 MMBTU/hr)  
Z037 (natural gas heater - 4 MMBTU/hr)  
Z040 (ceramic wet screening)  
Z041 (ceramic material handling)  
Z050 (south powder hood)  
Z090 (billet preparation deburring)  
Z091 (bulk plate grinding)  
Z094 (4-high rolling mill #1)  
Z096 (RBT wire tandem mill #1)  
Z097 (RBT wire tandem mill #2)  
Z098 (RBT - eitel press)  
Z102 (whiting furnace rebuild)  
Z104 (alloy carbon conveying system)  
Z105 (alloy sand conveying system)  
Z180 (tool room machine shop)  
Z230 (PMP - screening, loading and blending)  
Z232 (PMP - attritioning)  
Z233 (PMP - impact grinding)  
Z300 Atomization  
Z301 Whiting BeO Pneumatic Conveyor  
Z302 Whiting Carbon Bin Collector  
Z303 Whiting Carbon Bin Pneumatic Collector  
Z304 Cast Shop Mold Grinder  
Z305 POR ABF Salt Storage  
Z306 POR ABF Calciner Product Storage 1  
Z307 POR ABF Calciner Product Storage 2  
Z308 POR West Oxide Barreling Product  
Z309 POR East Oxide Barreling Product  
Z310 POR Oxide Product  
Z311 POR Oxide Mixing Product  
Z312 PMP Alpine

**Facility Name: Brush Wellman Inc.**  
**Facility ID: 0362000009**

Z313 IG #2 South  
Z314 IG #2 North  
Z900 (alloy billet preparation)  
Z910 (RBT annealing/aging furnaces)  
Z920 (alloy - RBT machining)  
Z930 (heavy gage heat treat furnaces)  
Z940 (Z-mill)  
Z956 (scrap reclamation vacuum system)  
Z957 (decontamination vacuum system)  
Z959 (grit blaster vacuum system)  
Z970 (kapp mill grinder)  
Z980 (Be R&D powder hood 1)  
Z981 (Be R&D powder hood 2)  
Z982 (Be R&D powder hood 3)  
Z983 (Be R&D powder hood 4)

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, and well as any emission limitations and/or control requirements contained within the identified permit to install for the emissions unit. Insignificant emissions units listed above that are not subject to specific permit to install requirements are subject to one or more applicable requirements contained in the federally-approved versions of OAC Chapters 3745-17, 3745-18, and/or 3745-21.

**B. State Only Enforceable Section**

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Boiler #4 (B002)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Boiler #4 (B002)  
 Activity Description: Boiler # 4, 12 mmBtu/hr, Ames Iron Works, Cat. No. AA3005

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
12 mmBtu/hour, natural gas/liquified petroleum gas (LPG)-fired boiler #4	OAC rule 3745-17-10(B)(1)	0.020 lb particulate emissions (PE)/mmBtu of actual heat input
	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**

- 2.a OAC rule 3745-18-06 does not establish sulfur dioxide emission limitations for this emissions unit because the emissions unit only employs natural gas/LPG as fuel.

**II Operational Restrictions**

1. The permittee shall burn only natural gas and/or LPG in this emissions unit.

**III Monitoring and/or Recordkeeping**

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

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Boiler #4 (B002)

#### **IV Reporting Requirements**

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

#### **V Testing Requirements**

1. Compliance Methods Requirements: Compliance with the emission limitations in Section A.I of the terms and conditions of this permit shall be determined in accordance with the following methods:

- 1a. Emission Limitation: 0.020 lb PE/mmBtu of actual heat input

Applicable Compliance Method: When firing natural gas, the permittee may demonstrate compliance with this limitation by multiplying the maximum hourly natural gas consumption rate (11,900 cu. ft/hr) by the emission factor from AP-42, Table 1.4-2 (revised 7/98) of 1.9 lbs PE (filtrable)/mm cu. ft, and then dividing by the maximum heat input capacity of the boiler (12 mmBtu/hr).

When firing LPG, the permittee may demonstrate compliance with this limitation by multiplying the maximum hourly LPG consumption rate (131 gallons/hr) by the emission factor from AP-42, Table 1.5-1 (revised 10/96) of 0.6 lb PE (filtrable)/1000 gallons of LPG used, and then dividing by the maximum heat input capacity of the boiler (12 mmBtu/hr).

If required, compliance with the lb/mmBtu PE limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(9).

- 1b. Emission Limitation: Visible PE shall not exceed 20% opacity, as a 6 minute average, except as provided by rule.

Applicable Compliance Method: If required, compliance with the visible emissions limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

#### **VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Boiler #4 (B002)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Boiler #6 (B004)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Boiler #6 (B004)  
 Activity Description: Boiler # 6, 16.8 MMBTU/hr, Superior Boiler Works, Inc., Model No. 4-4.4-1758-S150-GP

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
16.8 mmBtu/hour, natural gas/liquified petroleum gas (LPG)-fired boiler #6	OAC rule 3745-31-05(A)(3) (PTI #03-2918)	See A.I.2.a.
	OAC rule 3745-17-10(B)	0.020 lb particulate emissions (PE)/mmBtu
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a 6 minute average, except as provided by rule.
	OAC rule 3745-23-06(B) OAC rule 3745-21-08(B)	See A.I.2.c.

**2. Additional Terms and Conditions**

- 2.a The requirements established pursuant to this rule are equivalent to the requirements of OAC rules 3745-17-10(B), 3745-17-07(A), 3745-23-06(B) and 3745-21-08(B).
- 2.b OAC rule 3745-18-06 does not establish sulfur dioxide emission limitations for this emissions unit because the emissions unit only employs natural gas/LPG as fuel.
- 2.c The permittee has satisfied the "latest available control techniques and operating practices required pursuant to OAC rule 3745-23-06 (B) and the "best available control techniques

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Boiler #6 (B004)

and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05 (A) (3) in Permit to Install 03-2918.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the 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 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

## **II Operational Restrictions**

1. The permittee shall burn only natural gas and/or LPG in this emissions unit.

## **III Monitoring and/or Recordkeeping**

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

## **IV Reporting Requirements**

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

## **V Testing Requirements**

1. Compliance Methods Requirements: Compliance with the emission limitations in Section A.I of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 1a. Emission Limitation: 0.020 lb PE/mmBtu of actual heat input

Applicable Compliance Method: When firing natural gas, the permittee may demonstrate compliance with this limitation by multiplying the maximum hourly natural gas consumption rate (16,342 cu. ft/hr) by the emission factor from AP-42, Table 1.4-2 (revised 7/98) of 1.9 lbs PE (filtrable)/mm cu. ft, and then dividing by the maximum heat input capacity of the boiler (16.8 mmBtu/hr).

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Boiler #6 (B004)

When firing LPG, the permittee may demonstrate compliance with this limitation by multiplying the maximum hourly LPG consumption rate (183.6 gallons/hr) by the emission factor from AP-42, Table 1.5-1 (revised 10/96) of 0.6 lb PE (filtrable)/1000 gallons of LPG used, and then dividing by the maximum heat input capacity of the boiler (12 mmBtu/hr).

If required, compliance with the lb/mmBtu PE limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(9).

- 1b. Emission Limitation: Visible PE shall not exceed 20% opacity, as a 6 minute average, except as provided by rule.

Applicable Compliance Method: If required, compliance with the visible emissions limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

## **VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Boiler #6 (B004)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Landfill Roadways and Parking Areas (F001)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Landfill Roadways and Parking Areas (F001)  
 Activity Description: Landfill Roadways & Parking Areas

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
landfill paved roadways and parking areas	OAC rule 3745-17-07(B)(4)	no visible particulate emissions from paved roadways except for 6 minutes during any 60-minute period
	OAC rule 3745-17-08(B), (B)(8), (B)(9)	reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust from paved roadways (See A.I.2.a., A.I.2.c., A.I.2.d., and A.I.2.f. through A.I.2.j.)
landfill unpaved roadways and parking areas	OAC rule 3745-17-07(B)(5)	no visible particulate emissions from unpaved roadways except for 13 minutes during any 60-minute period
	OAC rule 3745-17-08(B), (B)(2), (B)(9)	reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust from unpaved roadways (See A.I.2.b., A.I.2.e. through A.I.2.k.)

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Landfill Roadways and Parking Areas (F001)

## **2. Additional Terms and Conditions**

**2.a** The paved roadways and parking areas that are covered by this permit and subject to the requirements of OAC rules 3745-17-07(B)(4) and 3745-17-08(B)(8) and (B)(9) are listed below:

paved roadways:	paved parking areas:
landfill paved roadways	landfill paved parking areas

**2.b** The unpaved roadways and parking areas that are covered by this permit and subject to the requirements of OAC rules 3745-17-07(B)(5) and 3745-17-08(B)(2) and (B)(9) are listed below:

unpaved roadways:	unpaved parking areas:
landfill unpaved roadways	landfill unpaved parking areas

**2.c** The permittee shall employ reasonably available control measures on all paved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the paved roadways and parking areas by vacuum sweeping, and/or water flushing at sufficient treatment frequencies to ensure compliance, and speed limit restrictions (10 mph). Nothing in this paragraph shall prohibit the permittee from employing other equally effective control measures to ensure compliance.

**2.d** The permittee shall employ reasonably available control measures on the unpaved shoulders of all paved roadways for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the unpaved shoulders of all paved roadways by watering, oiling, and/or chemical stabilization at sufficient treatment frequencies and use speed limit restrictions (10 mph) to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other equally effective control measures to ensure compliance.

**2.e** The permittee shall employ reasonably available control measures on all unpaved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the unpaved roadways and parking areas by watering, oiling, and/or chemical stabilization at sufficient treatment frequencies and use speed limit restrictions (10 mph) to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other equally effective control measures to ensure compliance.

**2.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 a paved or unpaved

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Landfill Roadways and Parking Areas (F001)

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. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use.

- 2.g** Any unpaved roadway or parking area, which during the term of this permit is paved or takes the characteristics of a paved surface due to the application of certain types of dust suppressants, may be controlled with the control measure(s) specified above for paved surfaces. Any unpaved roadway or parking area that takes the characteristics of a paved roadway or parking area due to the application of certain types of dust suppressants shall remain subject to the visible emission limitation for unpaved roadways and parking areas. Any unpaved roadway or parking area that is paved shall be subject to the visible emission limitation for paved roadways and parking areas.
- 2.h** 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.
- 2.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.
- 2.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 requirements of OAC rule 3745-17-08.

## **II Operational Restrictions**

- 1. When using oil as a dust suppressant to control fugitive dust on unpaved roadways and parking areas, the permittee shall only apply virgin oil for the suppression of fugitive dust. Pursuant to OAC 3745-279-82, the use of used oil as a dust suppressant is prohibited in Ohio.
- 2. If the permittee uses oil for the suppression of fugitive dust, the following restrictions shall apply:
  - a. oils shall be applied in such a manner as to prevent pollution of waters of the State as required by the Ohio Revised Code, Section 6111;
  - b. oils shall be applied only to unpaved road and parking lot surfaces, and only between sunrise and sundown (daylight hours);
  - c. oils shall not be applied to a water-saturated surface and not to surfaces on days of predicted rainfall events;

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Landfill Roadways and Parking Areas (F001)

- d oils shall not be applied at an application rate that allows pooling of liquid;
- e oils shall not be applied to the same surfaces more frequently than twice per week;
- f the application of oils shall not cause runoff from the application surface;
- g oils shall not be applied to vegetation near or adjacent to surfaces being treated;
- h oils shall not be applied within 12 feet of structures crossing bodies of water or drainage ditches;
- i the discharge of oils must stop when the applicator vehicle stops;
- j the applicator vehicle must be moving at least 5 mph at all times while the oils are being applied;
- k the applicator vehicle discharge valve shall be locked closed between the oil collection point and the specific surfaces that have been approved for oil application;
- l any valves that provide for tank drainage other than through the spreading bar must be locked closed during oil application and transport; and
- m the angle of discharge from the applicator vehicle spreader bar shall not be greater than 60 degrees from the perpendicular to the unpaved surface.

### **III Monitoring and/or Recordkeeping**

1. Except as otherwise provided in this section, the permittee shall perform inspections of each of the paved and unpaved roadway segments and each parking area in accordance with the following frequencies:
  - paved roadways and parking areas:  
all paved roadways and parking areas
  - minimum inspection frequency:  
daily, when in use, otherwise, weekly
  - unpaved roadways and parking areas:  
all unpaved roadways and parking areas
  - minimum inspection frequency:  
daily, when in use, otherwise weekly
2. The purpose of the inspections is to determine the need for implementing the above-mentioned control measures. The inspections shall be performed during representative, normal traffic

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Landfill Roadways and Parking Areas (F001)

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 may, upon receipt of written approval from the appropriate Ohio EPA District Office or local air agency, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.
4. 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 4.d. shall be kept separately for (i) the paved roadways and parking areas and (ii) the unpaved roadways and parking areas, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

5. The permittee shall obtain an analysis of the oil used for the suppression of fugitive dust from the supplier and a certification that it is not classified as a "waste" or "used" oil.

#### **IV Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify each of the following:
  - 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.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Landfill Roadways and Parking Areas (F001)

The quarterly deviation reports shall be submitted in accordance with paragraph A.1.c.ii. of the General Terms and Conditions of this permit.

2. The permittee shall submit deviation (excursion) reports that identify each day when oil that did not conform with the specifications stated in A.II.2 was employed. Each report shall be submitted within 30 days after the deviation occurs.

## **V Testing Requirements**

1. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following method(s):
  - 1a. Emission Limitation -  
no visible particulate emissions from paved roadways except for 6 minutes during any 60-minute period

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance pursuant to the method and procedures specified in OAC rule 3745-17-03(B)(4).

- 1b. Emission Limitation -  
no visible particulate emissions from unpaved roadways except for 13 minutes during any 60-minute period

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance pursuant to the method and procedures specified in OAC rule 3745-17-03(B)(4).

## **VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Landfill Roadways and Parking Areas (F001)

**A. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: PCE Degreaser (L001)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: PCE Degreaser (L001)  
 Activity Description: Alloy RBT PCE Phillips Degreaser

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
alloy rod bar & tube (RBT)	OAC rule 3745-31-05(A)(3)	See A.I.2.a.
perchloroethylene (PERC) vapor Phillips degreaser; with freeboard refrigeration device and 1.0 freeboard ratio	(PTI # 03-1366) 40 CFR, Part 63, Subpart T	See A.I.2.b and A.II.
	OAC rule 3745-21-09(O)	exempt, pursuant to OAC rule 3745-21-09(O)(6) (See A.I.2.c.)

**2. Additional Terms and Conditions**

- 2.a The requirements established pursuant to this rule are equivalent to the requirements of 40 CFR, Part 63, Subpart T.
- 2.b The permittee shall ensure that the solvent cleaning machine conforms to the following design requirements:
  - i. The solvent cleaning machine shall be designed or operated to meet the following control equipment or technique requirements:
    - (a) Use of reduced room draft that ensures that the flow or movement across the top of the freeboard area of the solvent cleaning machine or within the solvent cleaning machine enclosure does not exceed 15.2 meters per minute (50 feet per minute) at any time measured using the procedure described in the "Monitoring and/or Record Keeping Requirements" section of this permit. The permittee shall establish and maintain the

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** PCE Degreaser (L001)

operating conditions under which the wind speed was demonstrated to be 15.2 meters per minute (50 feet per minute) or less as described in the "Monitoring and/or Record Keeping Requirements" section of this permit.

- ii. The solvent cleaning machine shall have a freeboard ratio of 1.0 or greater.
  - iii. The solvent cleaning machine shall have an automated parts handling system capable of moving parts or parts baskets at a speed of 3.4 meters per minute (11 feet per minute) or less from the initial loading of parts through removal of cleaned parts.
  - iv. The solvent cleaning machine shall be equipped with a device that shuts off the sump heat if the sump liquid solvent level drops to the sump heater coils.
  - v. The solvent cleaning machine shall be equipped with a vapor level control device that shuts off sump heat if the vapor level in the vapor cleaning machine rises above the height of the primary condenser.
  - vi. The solvent cleaning machine shall have a primary condenser.
  - vii. The permittee shall ensure that the chilled air blanket temperature (in degrees Fahrenheit), measured at the center of the air blanket, is no greater than 30 percent of the solvent's boiling point.
- 2.c** The exemption allowed in accordance with OAC rule 3745-21-09(O)(6) is not currently part of the federally-approved SIP. During the rule-making process, Ohio EPA received confirmation from USEPA concerning the acceptability of this exemption. Therefore, this exemption will be considered to be federally enforceable while SIP approval by USEPA is being obtained.

## **II Operational Restrictions**

- 1. The permittee shall meet all of the following required work and operational practices:
  - a. Control air disturbances across the solvent cleaning machine opening(s) by incorporating the following control equipment or techniques:
    - i. The permittee shall employ a reduced room draft that ensures that the flow or movement of air across the top of the freeboard area of the solvent cleaning machine or within the solvent cleaning machine enclosure does not exceed 15.2 meters per minute (50 feet per minute) at any time as measured using the procedures described in the "Monitoring and/or Record Keeping Requirements" section of this permit. The permittee shall also establish and maintain the operating conditions under which the wind speed was demonstrated to be 15.2

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** PCE Degreaser (L001)

meters per minute (50 feet per minute) or less as described in the "Monitoring and/or Record Keeping Requirements" section of this permit.

- b. The parts baskets or the parts being cleaned in solvent cleaning machine shall not occupy more than 50 percent of the solvent/air interface area unless the parts baskets or parts are introduced at a speed of 0.9 meter per minute (3 feet per minute) or less.
- c. Any spraying operations shall be done within the vapor zone or within a section of the solvent cleaning machine that is not directly exposed to the ambient air (i.e., a baffled or enclosed area of the solvent cleaning machine).
- d. Parts shall be oriented so that the solvent drains from them freely. Parts having cavities or blind holes must be tipped or rotated before being removed from the solvent cleaning machine unless an equally effective approach has been approved by the Director (Northwest District Office).
- e. Parts baskets or parts shall not be removed from the solvent cleaning machine until dripping has stopped.
- f. During startup of the solvent cleaning machine, the primary condensers shall be turned on before the sump heater.
- g. During shutdown of the solvent cleaning machine, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.
- h. When solvent is added or drained from the solvent cleaning machine, the solvent shall be transferred using threaded or other leakproof couplings and the end of the pipe in the solvent sump shall be located beneath the liquid solvent surface.
- i. The solvent cleaning machine and its associated controls shall be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to the satisfaction of the Director (Northwest District Office) to achieve the same or better results as those recommended by the manufacturer.
- j. The permittee shall complete and pass the applicable sections of the test of solvent cleaning operating procedures in 40 CFR Part 63, Appendix B if requested during an inspection by the Director (Northwest District Office).

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** PCE Degreaser (L001)

- k. Waste solvent, still bottoms, and sump bottoms shall be collected and stored in closed containers. The closed containers may contain a device that would allow pressure relief, but must not allow liquid solvent to drain from the container.
- l. Sponges, fabric, wood, and paper products shall not be cleaned.

### **III Monitoring and/or Recordkeeping**

- 1. The permittee shall conduct monitoring and record the results on a weekly basis for the freeboard refrigeration device by using a thermometer or thermocouple to measure the temperature at the center of the air blanket during the idling mode.
- 2. The permittee shall monitor the hoist speed as described below:
  - a. The permittee shall determine the hoist speed by measuring the time it takes for the hoist to travel a measured distance. The speed is equal to the distance in meters divided by the time in minutes (meters per minute).
  - b. The permittee shall conduct monthly monitoring of the hoist speed. If after the first year, no exceedances of the hoist speed are measured, the permittee may begin monitoring the hoist speed quarterly.
  - c. If an exceedance of the hoist speed occurs during quarterly monitoring, the permittee shall return to a monthly monitoring frequency until another year of compliance without an exceedance is demonstrated.
  - d. If the permittee can demonstrate to the satisfaction of the Director (Northwest District Office) in the initial compliance report that the hoist speed cannot exceed a speed of 3.4 meters per minute (11 feet per minute), the required monitoring frequency is quarterly, including during the first year of compliance.
- 3. The permittee shall maintain the following records in written or electronic form for the lifetime of the solvent cleaning machine:
  - a. Owner's manuals, or if not available, written maintenance and operating procedures for the solvent cleaning machine and control equipment.
  - b. The date of installation for the solvent cleaning machine and all of its control devices. If the exact date for the installation is not known, a letter certifying that the cleaning machine and its control devices were installed prior to, or on, November 29, 1993, or after November 29, 1993, may be substituted.
  - c. Records of the halogenated HAP solvent content for the solvent used in the solvent cleaning machine.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** PCE Degreaser (L001)

4. The permittee shall maintain the following records in written or electronic form for a period of five years for the solvent cleaning machine:
  - a. The results of control device monitoring required in this section of the permit.
  - b. Information on the actions taken to comply with 40 CFR 63.463 (e) and (f), including records of written or verbal orders for replacement parts, a description of the repair made, and additional monitoring conducted to demonstrate that monitored parameters have returned to acceptable levels.
  - c. Estimates of annual perchloroethylene consumption for the solvent cleaning machine.

#### **IV Reporting Requirements**

1. The permittee shall submit an initial notification report. Each initial notification report shall contain the following:
  - a. The name and address of the permittee.
  - b. The address (i.e., physical location) of the solvent cleaning machine.
  - c. A brief description of the solvent cleaning machine type, solvent/air interface area, and existing controls.
  - d. The date of installation for each solvent cleaning machine or a letter certifying that the solvent cleaning machine and its control devices were installed prior to, or after, November 2, 1993.
  - e. The anticipated compliance approach for the solvent cleaning machine.
  - f. An estimate of the annual perchloroethylene consumption for the solvent cleaning machine.
2. The permittee shall submit an initial statement of compliance. Each initial statement of compliance shall contain the following:
  - a. The name and address of the permittee.
  - b. The address (i.e., physical location) of the solvent cleaning machine.
  - c. A list of the control equipment used to achieve compliance.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** PCE Degreaser (L001)

- d. A list of the parameters that are monitored and the values of these parameters measured on or during the first month after the compliance date for each piece of control equipment required to be monitored.
3. The permittee shall submit an annual report by February 1 of each year for the preceding year. Each annual report shall contain the following:
    - a. A signed statement from the facility owner or their designee stating that, "All operators of solvent cleaning machines have received training on the proper operation of solvent cleaning machines and their control devices sufficient to pass the test required pursuant to 40 CFR 60.463 (d) (10)."
    - b. An estimate of solvent consumption during the reporting period.
  4. The permittee shall submit an exceedance report on a semiannual basis. If the temperature of the chilled air blanket, measured at the center of the air blanket, was greater than 30 percent of the solvent's boiling point, and no correction was made within 15 days of detection, the permittee shall begin to submit a quarterly report until such time that the permittee requests and receives approval of a less frequent reporting frequency from the Director (Northwest District Office). The permittee may receive approval of less frequent reporting if the following conditions are met: (1) The emissions unit has demonstrated a full year of compliance without an exceedance, (2) the permittee continues to comply with all relevant record keeping and monitoring requirements specified in 40 CFR 63.1, General Provisions, and (3) the Director (Northwest District Office) does not object to a reduced frequency of reporting for the affected emissions unit as provided in paragraph (e) (3) (iii) of subpart A, 40 CFR 63.1, General Provisions. Each exceedance report shall be delivered or post marked by the 30th day following the reporting period. Each exceedance report shall contain the following:
    - a. The reason and a description of the exceedance and action(s) taken to comply with 40 CFR 63.463 (e) and (f) including written or verbal orders for replacement parts, a description of the repairs made, and additional monitoring conducted to demonstrate that monitored parameters have returned to acceptable levels.
    - b. If no exceedance has occurred, a statement to that effect shall be submitted.

## **V Testing Requirements**

1. The permittee shall determine the facility's potential to emit (PTE) from all solvent cleaning operations. A facility's total PTE is the sum of the HAP emissions from all solvent cleaning operations plus all HAP emissions from other emissions units from within the facility. The potential to emit shall be determined in accordance with the following procedures:
  - 1a. Determine the potential to emit for each individual solvent cleaning machine using the following equation:

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** PCE Degreaser (L001)

$$PTE_i = H_i \times W_i \times SAI_i$$

Where:

$PTE_i$  = the potential to emit for the solvent cleaning machine  $i$  (kilograms solvent per year).

$H_i$  = hours of operation for solvent cleaning machine  $i$  (hours per year).

= 8760 hours per year, unless otherwise restricted by a federally enforceable requirement.

$W_i$  = the working mode uncontrolled emission rate (kilograms per square meter per hour).

= 1.95 kilograms per square meter per hour for batch vapor and cold cleaning machines.

= 1.12 kilograms per square meter per hour for in-line cleaning machines.

$SAI_i$  = solvent/air interface area of solvent cleaning machine  $i$  (square meters). Section 63.461 defines the solvent/air interface area for those machines that have a solvent /air interface. Cleaning machines that do not have a solvent area interface shall calculate a solvent/air interface area using the procedure in paragraph (b) below.

- 1b. Cleaning machines that do not have a solvent/air interface shall calculate a solvent/air interface area using the following equation:

$$SAI = 2.2 * (Vol)^{0.6}$$

Where:

$SAI$  = the solvent/air interface area (square meters).

$Vol$  = the cleaning capacity of the solvent cleaning machine (cubic meters).

- 1c. Sum the  $PTE_i$  for all solvent cleaning operations to obtain the total potential to emit for solvent cleaning operations at the facility.

## **VI Miscellaneous Requirements**

1. As an alternative to meeting the requirements of 40 CFR, Part 63.463, the permittee may elect to comply with the requirements of 40 CFR, Part 63.464, or other equivalent methods of control using the procedures described in 40 CFR, Part 63.469. If the permittee chooses either of these options, the permittee would be required to notify Ohio EPA, in writing, prior to implementation.

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: PCE Degreaser (L001)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: General Furnace Rebuild (P001)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: General Furnace Rebuild/Grit Blaster (P001)  
 Activity Description: General Furnace Rebuild Operations - Building #18 (P001)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
general furnace rebuild with baghouse	OAC rule 3745-17-07(A)	See A.I.2.a.
	OAC rule 3745-17-11(B)	See A.I.2.b.
	OAC rule 3745-18-06(E)	Exempt (see A.I.2.c).

**2. Additional Terms and Conditions**

- 2.a 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.
- 2.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.
- 2.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).

**II Operational Restrictions**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** General Furnace Rebuild (P001)

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: General Furnace Rebuild (P001)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Whiting Furnace (P010)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Whiting Furnace (P010)  
 Activity Description: Whiting Arc Furnace Operations (P010)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Whiting furnace (electric), with two baghouses and cartridge filters	OAC rule 3745-31-05(A)(3) (PTI # 03-899)	See A.I.2.a.
	OAC rule 3745-17-11(B)	15 lbs particulate emission (PE)/hr
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-23-06(B) OAC rule 3745-21-08(B)	See A.I.2.b.

**2. Additional Terms and Conditions**

- 2.a The requirements established pursuant to this rule are equivalent to the requirements of OAC rules 3745-17-11(B), 3745-17-07(A), 3745-23-06(B) and 3745-21-08(B).
- 2.b The permittee has satisfied the "latest available control techniques and operating practices required pursuant to OAC rule 3745-23-06 (B) and the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05 (A) (3) in Permit to Install 03-899.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Whiting Furnace (P010)

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the 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 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

## **II Operational Restrictions**

None

## **III Monitoring and/or Recordkeeping**

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 visible emissions.

## **IV 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 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.

## **V Testing Requirements**

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

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Whiting Furnace (P010)

- a. The emission testing shall be conducted within 12 months after issuance of this permit. Further testing shall be conducted in accordance with Engineering Guide #16.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE, and to determine actual emission rates for CO and OC.
  - c. The following test methods shall be employed during the emissions testing:
    - i. For PE: Methods 1 - 5 of 40 CFR Part 60, Appendix A.
    - ii. For CO: Methods 1 - 4 and 10 of 40 CFR Part 60, Appendix A.
    - iii. For OC: Methods 1 - 4 and 18, 25 or 25A, as appropriate, of 40 CFR Part 60, Appendix A.
  - d. The tests 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.
2. 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).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

3. During the emission testing of this emissions unit, the following additional information shall be recorded:
  - a. the pressure drop across each particulate control device, in inches of water; and
  - b. the tons of product produced.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Whiting Furnace (P010)

4. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following method(s):
  - a. Emission Limitation:  
15 pounds PE/hour  
  
Applicable Compliance Method:  
The permittee shall demonstrate compliance with the hourly allowable PE limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5.
  - b. Emission Limitation -  
Visible particulate emissions 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).

## **VI Miscellaneous Requirements**

1. The permittee was issued a permit to install in 1980 for this emissions unit. Also, the permittee was issued a Notice of Violation on November 26, 2002 for failing to address emissions of carbon monoxide and other potential pollutants of incomplete combustion and for failing to go through the requirements of New Source Review. This constituted a violation of the PSD rules of 40 CFR 52.21. [The permittee has since submitted a PSD permit to install application to achieve compliance with the applicable requirements in accordance with the USEPA's "Appropriate Injunctive Relief Policy".]

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Whiting Furnace (P010)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Bulk Pickling and Caustic Cleaning (P013)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Bulk Pickling and Caustic Cleaning (P013)  
 Activity Description: Alloy Heavy Gauge Bulk Pickling and Caustic Bath

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
alloy heavy gauge bulk pickling and caustic bath	OAC rule 3745-17-11(B)	See A.I.2.a.
	OAC rule 3745-17-07(A)	See A.I.2.b.

- 2. **Additional Terms and Conditions**

- 2.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.
- 2.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.

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Bulk Pickling and Caustic Cleaning (P013)

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Bulk Pickling and Caustic Cleaning (P013)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Graphite Machine Shop (P015)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Wheelabrator Collector (P015)  
 Activity Description: Powder Metal Graphite Machining

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
graphite machine shop - with two baghouses and a cyclone	OAC rule 3745-17-11(B)	See A.I.2.a.
	OAC rule 3745-17-07(A)	See A.I.2.b.

2. **Additional Terms and Conditions**

- 2.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.
- 2.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.

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Graphite Machine Shop (P015)

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Graphite Machine Shop (P015)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name: Brush Wellman Inc.**  
**Facility ID: 0362000009**  
**Emissions Unit: PMP Be Machining (P018)**

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: PMP Be Machining (P018)  
 Activity Description: Powder Metal - Security, Front, CNC Machine Shops, EDM Area, Saw Room (P018)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
powder metal products - security, front, CNC machine shops, EDM area, saw room - with two	OAC rule 3745-17-11(B)	See A.I.2.a.
baghouses and cartridge filter	OAC rule 3745-17-07(A)	See A.I.2.b.

**2. Additional Terms and Conditions**

- 2.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.
- 2.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.

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** PMP Be Machining (P018)

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: PMP Be Machining (P018)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: PMP - Scrap Reclamation (P021)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: PMP - Scrap Reclamation (P021)  
 Activity Description: Powder Metal - Scrap Reclamation Operations (P021)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Powder Metal Products - scrap reclamation operations, with four baghouses	40 CFR, Part 63, Subpart T	See A.I.2.a.
	OAC rule 3745-21-09(O)	exempt, pursuant to OAC rule 3745-21-09(O)(6) (See A.I.2.b.)
	OAC rule 3745-17-11(B)	See A.I.2.c.
	OAC rule 3745-17-07(A)	See A.I.2.d.

**2. Additional Terms and Conditions**

- 2.a The cold cleaner shall employ a tightly fitting cover that shall be closed at all times except during parts entry and removal and a freeboard ratio of 0.75 or greater.
- 2.b The exemption allowed in accordance with OAC rule 3745-21-09(O)(6) is not currently part of the federally-approved SIP. During the rule-making process, Ohio EPA received confirmation from USEPA concerning the acceptability of this exemption. Therefore, this exemption will be considered to be federally enforceable while SIP approval by USEPA is being obtained.
- 2.c 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.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** PMP - Scrap Reclamation (P021)

- 2.d** 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.

## **II Operational Restrictions**

1. The permittee shall comply with the following work and operational practice requirements:
  - a. All waste solvent shall be collected and stored in closed containers. The closed container may contain a device that allows pressure relief, but does not allow liquid solvent to drain from the container.
  - b. If a flexible hose or flushing device is used, flushing shall be performed only within the freeboard area of the solvent cleaning machine.
  - c. The permittee shall drain solvent cleaned parts for 15 seconds or until dripping has stopped, whichever is longer. Parts having cavities or blind holes shall be tipped or rotated while draining.
  - d. The permittee shall ensure that the solvent level does not exceed the fill line.
  - e. Spills during solvent transfer shall be wiped up immediately. The wipe rags shall be stored in covered containers meeting the requirements of paragraph (1) (a) above.
  - f. When an air- or pump-agitated solvent bath is used, the permittee shall ensure that the agitator is operated to produce a rolling motion of the solvent, but not observable splashing against tank walls or parts being cleaned.
  - g. The permittee shall ensure that, when the cover is open, the cold cleaning machine is not exposed to drafts greater than 40 meters per minute (132 feet per minute), as measured between 1 and 2 meters (3.3 and 6.6 feet) upwind and at the same elevation as the tank lip.
  - h. Sponges, fabric, wood, and paper products shall not be cleaned.

## **III Monitoring and/or Recordkeeping**

None

## **IV Reporting Requirements**

1. The permittee shall submit an initial notification report. Each initial notification report shall contain the following:
  - a. The name and address of the owner or operator.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** PMP - Scrap Reclamation (P021)

- b. The address (i.e., physical location) of the solvent cleaning machine.
- c. A brief description of the solvent cleaning machine type, solvent/air interface area, and existing controls.
- d. The date of installation for each solvent cleaning machine or a letter certifying that the solvent cleaning machine and its control devices were installed prior to, or after, November 2, 1993.
- e. The anticipated compliance approach for the solvent cleaning machine.
- f. An estimate of the Perchloroethylene consumption for the solvent cleaning machine.

## V Testing Requirements

- 1. The permittee shall determine the facility's potential to emit (PTE) from all solvent cleaning operations. A facility's total PTE is the sum of the HAP emissions from all solvent cleaning operations plus all HAP emissions from other emissions units from within the facility. The potential to emit shall be determined in accordance with the following procedures:
  - 1a. Determine the potential to emit for each individual solvent cleaning machine using the following equation:

$$PTE_i = H_i \times W_i \times SAI_i$$

Where:

$PTE_i$  = the potential to emit for the solvent cleaning machine  $i$  (kilograms solvent per year).

$H_i$  = hours of operation for solvent cleaning machine  $i$  (hours per year).

= 8760 hours per year, unless otherwise restricted by a federally enforceable requirement.

$W_i$  = the working mode uncontrolled emission rate (kilograms per square meter per hour).

= 1.95 kilograms per square meter per hour for batch vapor and cold cleaning machines.

= 1.12 kilograms per square meter per hour for in-line cleaning machines.

$SAI_i$  = solvent/air interface area of solvent cleaning machine  $i$  (square meters). Section 63.461 defines the solvent/air interface area for those machines that have a solvent /air interface. Cleaning machines that do not have a solvent area interface shall calculate a solvent/air interface area using the procedure in paragraph (b) below.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** PMP - Scrap Reclamation (P021)

- 1b. Cleaning machines that do not have a solvent/air interface shall calculate a solvent/air interface area using the following equation:

$$SAI = 2.2 * (Vol)^{0.6}$$

Where:

SAI = the solvent/air interface area (square meters).

Vol = the cleaning capacity of the solvent cleaning machine (cubic meters).

- 1c. Sum the PTE<sub>i</sub> for all solvent cleaning operations to obtain the total potential to emit for solvent cleaning operations at the facility.

## **VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: PMP - Scrap Reclamation (P021)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. **Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: PMP - Vacuum Casting Furnaces (P022)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: PMP - Vacuum Casting Furnaces (P022)  
 Activity Description: Powder Metal Press - Vacuum Casting Furnace, Charge Make-up (P022)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
powder metal products - vacuum casting furnace, charge make-up with baghouse and packed tower scrubber	OAC rule 3745-17-07(A)	See A.I.2.a.
	OAC rule 3745-17-11(B)	See A.I.2.b.
	OAC rule 3745-18-06(E)	Exempt (see A.I.2.c).

**2. Additional Terms and Conditions**

- 2.a 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.
- 2.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.
- 2.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).

**II Operational Restrictions**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** PMP - Vacuum Casting Furnaces (P022)

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: PMP - Vacuum Casting Furnaces (P022)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Wet Plant (P026)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Wet Plant (P026)  
 Activity Description: Pebble/Oxide - Tanks/Mixing Operations. Dissolving make-up tank, thickening, filtering, sulfide treating, solution storage, adjusting, concentrating, crystallizing, centrifuging, ABF dryer, and ABF salt storage, etc...

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<b><u>Operations, Property, and/or Equipment</u></b>	<b><u>Applicable Rules/Requirements</u></b>	<b><u>Applicable Emissions Limitations/Control Measures</u></b>
pebble oxide - tanks and mixing operations, with two packed tower scrubbers	OAC rule 3745-17-11(B)	See A.I.2.a.
	OAC rule 3745-17-07(A)	See A.I.2.b.

**2. Additional Terms and Conditions**

- 2.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.
- 2.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.

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Wet Plant (P026)

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Wet Plant (P026)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name: Brush Wellman Inc.**  
**Facility ID: 0362000009**  
**Emissions Unit: RBT Bulk Cleaning System (P033)**

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: RBT Bulk Cleaning System (P033)  
 Activity Description: Alloy RBT Bulk Cleaning System (P033)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
alloy RBT - pickling and caustic cleaning with packed tower scrubber	OAC rule 3745-31-05(A)(3) (PTI #03-1366)	See A.I.2.a.
	OAC rule 3745-17-11(B)	See A.I.2.b.
	OAC rule 3745-17-07(A)	See A.I.2.c.

**2. Additional Terms and Conditions**

- 2.a There were no emission limitations established pursuant to OAC rule 3745-31-05(A).
- 2.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.
- 2.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.

**II Operational Restrictions**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** RBT Bulk Cleaning System (P033)

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: RBT Bulk Cleaning System (P033)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Be Oxide Fce. #9 (P037)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Be Oxide Fce. #9 (P037)  
 Activity Description: Be-Oxide Furnace #9

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Be-oxide furnace #9 with baghouse, packed tower scrubber, and demister	OAC rule 3745-31-05(A)(3) (PTI #03-1948)	1.2 lbs particulate emissions (PE)/hr, See A.I.2.a.
	OAC rule 3745-17-11(B)(1)	See A.I.2.b.
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a 6 minute average, except as provided by rule.
	OAC rule 3745-18-06(E)	Exempt (see A.I.2.c).
	OAC rule 3745-23-06(B) OAC rule 3745-21-08(B)	See A.I.2.d.

**2. Additional Terms and Conditions**

- 2.a The requirements of this rule also include compliance with the requirements of OAC rules 3745-23-06(B), 3745-21-08(B) and 3745-17-07 .
- 2.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).
- 2.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).

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Be Oxide Fce. #9 (P037)

- 2.d The permittee has satisfied the "latest available control techniques and operating practices required pursuant to OAC rule 3745-23-06 (B) and the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05 (A) (3) in Permit to Install 03-1709.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the 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 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

## **II Operational Restrictions**

1. The pressure drop across the baghouse shall be maintained within the range of 1 to 10 inches of water while the emissions unit is in operation. The listed pressure drop range shall apply at all times except during periods of re-bagging or cleaning until sufficient filter cake is developed on the bags.
2. The wet scrubber (C-9-1-3) shall be designed and operated in accordance with the following requirements:
  - a. The pressure drop across the scrubber shall be continuously maintained within a range of 0.4 - 4.5 inches of water at all times while the emissions unit is in operation.
  - b. The scrubber water flow rate shall be continuously maintained at a value of not less than 200 gallons per minute at all times while the emissions unit is in operation.
  - c. The pH of the scrubber liquor shall be maintained within the range of 6.5 to 10.5.

## **III Monitoring and/or Recordkeeping**

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.
2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber water flow rate while this emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Be Oxide Fce. #9 (P037)

3. The permittee shall collect and record the following information on a daily basis for this emissions unit:
  - a. the pressure drop across the scrubber, in inches of water;
  - b. the scrubber water flow rate, in gallons/minute,
  - c. the pH of the scrubber liquor; and
  - d. a log of the downtime for any time periods when the capture system, control device or monitoring equipment were not working while the emissions unit was in operation.

#### **IV Reporting Requirements**

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above. The permittee shall submit deviation (excursion) reports in accordance with General Term and Condition A.I.c.ii of this permit.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within or above the required levels:
  - a. The static pressure drop across the scrubber.
  - b. The scrubber water flow rate.
  - c. The pH of the scrubber liquor.

The permittee shall submit deviation (excursion) reports in accordance with General Term and Condition A.I.c.ii of this permit.

3. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.

#### **V Testing Requirements**

1. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following method(s):
  - 1a. Emission Limitation:  
1.2 lbs PE/hr

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Be Oxide Fce. #9 (P037)

**Applicable Compliance Method:**

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 a baghouse (with a control efficiency of 99%) and a packed tower scrubber (with a manufacturer's guarantee control efficiency of 90%). For the compliance demonstration, the conservative control efficiency of 90% was utilized.

1b. **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 specified in OAC rule 3745-17-03(B)(1).

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Be Oxide Fce. #9 (P037)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Billet Prep. Billet Homog. Furnace (P038)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Billet Prep. Billet Homog. Furnace (P038)  
 Activity Description: Alloy Melting & Casting Billet Homog. Furnace, Sauder Lift-up Furnace - Old Cast Shop (P038)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
alloy melting & casting billet homogenization furnace, Sauder lift-up furnace - old cast shop	OAC rule 3745-31-05(A)(3) (PTI #03-1709)	See A.I.2.a.
	OAC rule 3745-17-11(B)	See A.I.2.b.
	OAC rule 3745-17-07(A)	See A.I.2.c.
	OAC rule 3745-18-06(E)	39 lbs SO <sub>2</sub> /hr
	OAC rule 3745-23-06(B) OAC rule 3745-21-08(B)	See A.I.2.d.

**2. Additional Terms and Conditions**

- 2.a The requirements established pursuant to this rule are equivalent to the requirements of OAC rules 3745-18-06(E), 3745-23-06(B) and 3745-21-08(B) .
- 2.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.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Billet Prep. Billet Homog. Furnace (P038)

- 2.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.
- 2.d The permittee has satisfied the "latest available control techniques and operating practices required pursuant to OAC rule 3745-23-06 (B) and the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05 (A) (3) in Permit to Install 03-1709.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the 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 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

## **II Operational Restrictions**

None

## **III Monitoring and/or Recordkeeping**

None

## **IV Reporting Requirements**

None

## **V Testing Requirements**

1. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following method(s):

Emission Limitation:  
39 pounds SO<sub>2</sub>/hour

Applicable Compliance Method:  
The emissions unit is assumed to be in compliance with the SO<sub>2</sub> limitation above since the amount of SO<sub>2</sub> generated in this emissions unit is negligible.

## **VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Billet Prep. Billet Homog. Furnace (P038)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Be Oxide Fce. #7 (P042)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Be Oxide Fce. #7 (P042)  
 Activity Description: Be-Oxide Furnace #7

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Be Oxide furnace # 7 with baghouse, packed tower scrubber and demister	OAC rule 3745-31-05(A)(3) (PTI #03-937)	See A.I.2.a.
	OAC rule 3745-17-11(B)	See A.I.2.b.
	OAC rule 3745-17-07(A)	See A.I.2.c.
	OAC rule 3745-18-06(E)	Exempt (see A.I.2.d).
	OAC rule 3745-23-06(B) OAC rule 3745-21-08(B)	See A.I.2..e.

**2. Additional Terms and Conditions**

- 2.a The requirements established pursuant to this rule are equivalent to the requirements of OAC rules 3745-23-06(B), 3745-18-06(E) and 3745-21-08(B) .
- 2.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.
- 2.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.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Be Oxide Fce. #7 (P042)

- 2.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).
- 2.e** The permittee has satisfied the "latest available control techniques and operating practices required pursuant to OAC rule 3745-23-06 (B) and the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05 (A) (3) in Permit to Install 03-937.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the 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 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

## **II Operational Restrictions**

1. The pressure drop across the baghouse shall be maintained within the range of 1 to 10 inches of water while the emissions unit is in operation. The listed pressure drop range shall apply at all times except during periods of re-bagging or cleaning until sufficient filter cake is developed on the bags.
2. The packed tower scrubber (C-9-1-3) shall be designed and operated in accordance with the following requirements:
  - a. The pressure drop across the scrubber shall be continuously maintained within a range of 0.4 - 8 inches of water at all times while the emissions unit is in operation.
  - b. The scrubber water flow rate shall be continuously maintained at a value of not less than 200 gallons per minute at all times while the emissions unit is in operation.
  - c. The pH of the scrubber liquor shall be maintained within the range of 6.5 to 10.5.

## **III Monitoring and/or Recordkeeping**

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

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Be Oxide Fce. #7 (P042)

2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber, the scrubber water flow rate and the scrubber pH while this emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
3. The permittee shall collect and record the following information on a daily basis for this emissions unit:
  - a. the pressure drop across the scrubber, in inches of water;
  - b. the scrubber water flow rate, in gallons/minute,
  - c. the pH of the scrubber liquor; and
  - d. a log of the downtime for any time periods when the capture system, control device or monitoring equipment were not working while the emissions unit was in operation.

#### **IV Reporting Requirements**

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above. The permittee shall submit deviation (excursion) reports in accordance with General Term and Condition A.I.c.ii of this permit.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within or above the required levels:
  - a. The static pressure drop across the scrubber.
  - b. The scrubber water flow rate.
  - c. The pH of the scrubber liquor.

The permittee shall submit deviation (excursion) reports in accordance with General Term and Condition A.I.c.ii of this permit.
3. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.

#### **V Testing Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Be Oxide Fce. #7 (P042)

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Be Oxide Fce. #7 (P042)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Be Oxide Fce. #8 (P043)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Be Oxide Fce. #8 (P043)  
 Activity Description: Be-Oxide Furnace #8

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Be-Oxide Furnace #8 with baghouse, packed tower scrubber, and demister	OAC rule 3745-31-05(A)(3) (PTI #03-937)	See A.I.2.a.
	OAC rule 3745-17-11(B)	See A.I.2.b.
	OAC rule 3745-17-07(A)	See A.I.2.c.
	OAC rule 3745-18-06(E)	Exempt (see A.I.2.d).
	OAC rule 3745-23-06(B) OAC rule 3745-21-08(B)	See A.I.2.e.

**2. Additional Terms and Conditions**

- 2.a The requirements established pursuant to this rule are equivalent to the requirements of OAC rules 3745-23-06(B), 3745-18-06(E) and 3745-21-08(B) .
- 2.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.
- 2.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.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Be Oxide Fce. #8 (P043)

- 2.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).
2. e The permittee has satisfied the "latest available control techniques and operating practices required pursuant to OAC rule 3745-23-06 (B) and the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05 (A) (3) in Permit to Install 03-937.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the 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 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

## **II Operational Restrictions**

1. The pressure drop across the baghouse shall be maintained within the range of 1 to 10 inches of water while the emissions unit is in operation. The listed pressure drop range shall apply at all times except during periods of rehangng or cleaning until sufficient filter cake is developed on the bags.
2. The packed tower scrubber (C-9-1-3) shall be designed and operated in accordance with the following requirements:
  - a. The pressure drop across the scrubber shall be continuously maintained within a range of 0.4 - 8 inches of water at all times while the emissions unit is in operation.
  - b. The scrubber water flow rate shall be continuously maintained at a value of not less than 200 gallons per minute at all times while the emissions unit is in operation.
  - c. The pH of the scrubber liquor shall be maintained within the range of 6.5 to 10.5.

## **III Monitoring and/or Recordkeeping**

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

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Be Oxide Fce. #8 (P043)

2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber, the scrubber water flow rate and the scrubber pH while this emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
3. The permittee shall collect and record the following information on a daily basis for this emissions unit:
  - a. the pressure drop across the scrubber, in inches of water;
  - b. the scrubber water flow rate, in gallons/minute;
  - c. the pH of the scrubber liquor; and
  - d. a log of the downtime for any time periods when the capture system, control device or monitoring equipment were not working while the emissions unit was in operation.

#### **IV Reporting Requirements**

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above. The permittee shall submit deviation (excursion) reports in accordance with General Term and Condition A.I.c.ii of this permit.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within or above the required levels:
  - a. The static pressure drop across the scrubber.
  - b. The scrubber water flow rate.
  - c. The pH of the scrubber liquor.

The permittee shall submit deviation (excursion) reports in accordance with General Term and Condition A.I.c.ii of this permit.

3. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.

#### **V Testing Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Be Oxide Fce. #8 (P043)

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Be Oxide Fce. #8 (P043)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name: Brush Wellman Inc.**  
**Facility ID: 0362000009**  
**Emissions Unit: Alloy LGS Pickle Line (P044)**

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Alloy LGS Pickle Line (P044)  
 Activity Description: Alloy Light Gauge Strip Pickle Line (P044)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
alloy light gauge strip pickle line with a packed-bed scrubber and a baghouse in series	OAC rule 3745-31-05(A)(3) (PTI #03-02405)	1.0 x E-04 tons Be/year See A.I.2.a.
	OAC rule 3745-17-11(B)	4.5 lbs particulate emissions (PE)/hour
	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**

- 2.a The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A) and 3745-17-11(B) .

**II Operational Restrictions**

1. The wet scrubber shall be designed and operated in accordance with the following requirements:
  - a. The pressure drop across the scrubber shall be continuously maintained within a range of 4.0 - 6.5 inches of water at all times while the emissions unit is in operation.
  - b. The scrubber water flow rate shall be continuously maintained at a value of not less than 12 gallons per minute at all times while the emissions unit is in operation.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy LGS Pickle Line (P044)

- c. The pH of the scrubber liquor shall be maintained within the range of 6.5 - 10.5.

### **III Monitoring and/or Recordkeeping**

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 baghouse 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 visible emissions.
2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber water flow rate while this emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
3. The permittee shall collect and record the following information on a daily basis for this emissions unit:
  - a. the pressure drop across the scrubber, in inches of water;
  - b. the scrubber water flow rate, in gallons/minute,
  - c. the pH of the scrubber liquor; and
  - d. a log of the downtime for any time periods when the capture system, control device or monitoring equipment were not working while the emissions unit was in operation.
4. The permittee shall maintain records of the annual operating hours for this emissions unit.

### **IV 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 baghouse stack serving this emissions unit

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy LGS Pickle Line (P044)

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.

2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within or above the required levels:
  - a. The static pressure drop across the scrubber.
  - b. The scrubber water flow rate.
  - c. The pH of the scrubber liquor.

The permittee shall submit deviation (excursion) reports in accordance with General Term and Condition A.I.c.ii of this permit.

3. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.

## **V Testing Requirements**

1. The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:
  - 1a. The emission testing shall be conducted within 12 months after issuance of this permit. Further testing shall be conducted in accordance with Engineering Guide #16.
  - 1b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for PE and Be.
  - 1c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates:
    - i. For Be: Methods 1-4 and 29 or 104 of 40 CFR Part 60, Appendix A.
    - ii. For PE: Methods 1-5 of 40 CFR Part 60, Appendix A.
  - 1d. The tests 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.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy LGS Pickle Line (P044)

2. 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).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

3. During the emission testing of this emissions unit, the following additional information shall be recorded:
  - a. the pressure drop across the particulate control devices;
  - b. the scrubber water flow rate;
  - c. the static pressure drop across the scrubber;
  - d. the pH of the scrubber liquor; and
  - e. the tons of product produced.

4. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following method(s):

- 4a. Emission Limitation:  
1.0 x E-04 ton Be/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the yearly allowable Be limitation based on the hourly results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 29 or 104, multiplied by the annual operating hours (section III.4), and then dividing by 2,000.

- 4b. Emission Limitation:  
4.5 lbs PE/hr

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy LGS Pickle Line (P044)

**Applicable Compliance Method:**

The permittee shall demonstrate compliance with the hourly allowable PE limitation based on the hourly results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5.

4c. **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 specified in OAC rule 3745-17-03(B)(1).

## **VI Miscellaneous Requirements**

1. The permittee was issued a permit to install in 1986 for this emissions unit. Also, the permittee was issued a Notice of Violation on November 26, 2002, for failing to address emissions of NO and PE and for failing to go through the requirements of New Source Review. This constituted a violation of the PSD rules of 40 CFR 52.21. [The permittee has since submitted a synthetic minor permit to install application and BACT analysis to achieve compliance with the applicable requirements in accordance with the USEPA's "Appropriate Injunctive Relief Policy".]

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Alloy LGS Pickle Line (P044)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Induction Furnace #5 (P046)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Induction Furnace #5 (P046)  
 Activity Description: Alloy Scrap Melting - Induction Furnace #5

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
alloy induction furnace #5 with baghouse and cartridge filter in series	OAC rule 3745-31-05(A)(3) (PTI # 03-2504)	See A.I.2.a.
	OAC rule 3745-17-11(B)	55.8 lb particulate emission (PE)/hr (See A.I.2.b.)
	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**

- 2.a The requirements established pursuant to this rule are equivalent to the requirements of OAC rules 3745-17-11(B), and 3745-17-07(A).
- 2.b Emissions units P046, P064, P065, P066 and P067 are subject to the "grouping" provisions of OAC rule 3745-17-11(A)(3). Therefore, the PE from emissions units P046, P064, P065, P066 and P067, combined, shall not exceed 55.8 lbs/hr.

**II Operational Restrictions**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Induction Furnace #5 (P046)

### **III Monitoring and/or Recordkeeping**

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 visible emissions.

### **IV 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 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.

### **V Testing Requirements**

1. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 1a. Emission Limitation:  
55.8 lbs PE/hr

**Applicable Compliance Method:**

Compliance with the hourly PE limitation may be determined by multiplying the uncontrolled mass rate of PE, from emissions units P046, P064, P065, P066 and P067, combined, (492.8 lbs PE/hr) by a baghouse control factor of (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 baghouse control efficiency is assumed to be 99%.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Induction Furnace #5 (P046)

- 1b. 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 specified in OAC rule 3745-17-03(B)(1).

## **VI Miscellaneous Requirements**

1. The permittee was issued a PTI in 1986. The PTI required that the permittee comply with the beryllium standard [as specified in the NESHAP, 40 CFR paragraph 61.32(b)] of 0.01 ug Be/cubic meter (as a monthly average) . However, the PTI did not establish a limit for PE. Therefore, the permittee shall submit a complete permit to install application within 2 months following the issuance of this permit to establish a best available technology PE limitation.

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Induction Furnace #5 (P046)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Recycle Facility (P048)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Recycle Facility (P048)  
 Activity Description: Recycle Facility (Solvent Extraction, Solution Prep, Electrowinning)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
recycle facility (solvent extraction, solution prep, electrowinning) with four packed tower scrubbers	OAC rule 3745-31-05(A)(3) (PTI #03-2775)	0.006 ton beryllium (Be)/year
	OAC rule 3745-17-11(B)	See A.I.2.a.
	OAC rule 3745-17-07(A)	See A.I.2.b.

**2. Additional Terms and Conditions**

- 2.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.
- 2.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.

**II Operational Restrictions**

1. The wet scrubbers shall be designed and operated in accordance with the following requirements while the emissions unit is in operation:

Control Equipment	Equip ID #	pressure drop inches of water	scrubber water minimum flow rate

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Recycle Facility (P048)

Xerxes 736-Sp	C-46-2-1	1 - 4	145 gpm
Xerxes 735-P	C-46-3-1	1 - 3	100 gpm
Wet Plant ARCO	C-9-1-32	3 - 8	70 gpm
Xerxes 734-P	C-9-1-4	1 - 4	60 gpm

- The maximum annual operating hours for this emissions unit shall not exceed 6000.

### III Monitoring and/or Recordkeeping

- The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate(s) while this emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
- The permittee shall collect and record the following information each day for this emissions unit:
  - the pressure drop across each scrubber, in inches of water;
  - the scrubber water flow rate, in gallons/minute,
  - a log of the downtime for any time periods when the capture system, control device or monitoring equipment were not working while the emissions unit was in operation.
- The permittee shall maintain records of the annual operating hours for this emissions unit. The maximum annual operating hours shall be determined by averaging the operating hours over the three areas [(Soln Prep + Solvent Extraction + Electrowinning)/3].

### IV Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within or above the required levels:
  - The static pressure drop across each scrubber.
  - The scrubber water flow rate for each scrubber.

The permittee shall submit deviation (excursion) reports in accordance with General Term and Condition A.I.c.ii of this permit.

- The permittee shall submit annual reports that summarize the actual annual number of hours of operation for this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Recycle Facility (P048)

3. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.

## **V Testing Requirements**

1. The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:
  - 1a. The emission testing shall be conducted within 12 months after issuance of this permit. Further testing shall be conducted in accordance with Engineering Guide #16.
  - 1b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for Be.
  - 1c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates:
    - i. For Be: Methods 1-4 and 29 or 104 of 40 CFR Part 60, Appendix A.
  - 1d. The tests 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.
2. 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).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

3. During the emission testing of this emissions unit, the following additional information shall be recorded:

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Recycle Facility (P048)

- a. the pressure drop across each particulate control device;
  - b. the scrubber water flow rate for each control device; and
  - c. the tons of product produced.
4. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following method(s):

Emission Limitation:  
0.006 ton Be/yr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the yearly allowable Be limitation based on the hourly results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 29 or 104, multiplied by the annual operating hours (section III.4), and then dividing by 2,000.

## **VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Recycle Facility (P048)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name: Brush Wellman Inc.**  
**Facility ID: 0362000009**  
**Emissions Unit: NNS Iron & Copper Leaching (P051)**

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: NNS Iron & Copper Leaching (P051)  
 Activity Description: NNS Iron & Copper Leaching

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
NNS iron and copper leaching with packed tower scrubber	OAC rule 3745-31-05(A)(3) (PTI #03-3393)	7.3 lbs. nitrogen oxides (NOx)/hr, 32 tons NOx/yr
	OAC rule 3745-17-11(B)	See A.I.2.a.
	OAC rule 3745-17-07(A)	See A.I.2.b.

**2. Additional Terms and Conditions**

- 2.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.
- 2.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.

**II Operational Restrictions**

1. The packed tower scrubber shall be designed and operated in accordance with the following requirements:
  - a. The pressure drop across the scrubber shall be continuously maintained within a range of 1 - 5 inches of water at all times while the emissions unit is in operation.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** NNS Iron & Copper Leaching (P051)

- b. The scrubber water flow rate shall be continuously maintained at a value of not less than 1 gallon per minute at all times while the emissions unit is in operation.

### **III Monitoring and/or Recordkeeping**

1. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber water flow rate while this emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
2. The permittee shall collect and record the following information each day for this emissions unit:
  - a. the pressure drop across the scrubber, in inches of water;
  - b. the scrubber water flow rate, in gallons/minute; and
  - c. a log of the downtime for any time periods when the capture system, control device or monitoring equipment were not working while the emissions unit was in operation.

### **IV Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within or above the required levels:
  - a. The static pressure drop across the scrubber.
  - b. The scrubber water flow rate.

The permittee shall submit deviation (excursion) reports in accordance with General Term and Condition A.I.c.ii of this permit.

2. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.

### **V Testing Requirements**

1. The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:
  - 1a. The emission testing shall be conducted within 12 months after issuance of this permit. Further testing shall be conducted in accordance with Engineering Guide #16.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** NNS Iron & Copper Leaching (P051)

- 1b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for NO<sub>x</sub>.
- 1c. The following test method shall be employed to demonstrate compliance with the allowable mass emission rate for NO<sub>x</sub>: Methods 1-4 and 7 of 40 CFR Part 60, Appendix A.
- 1d. The tests 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.
2. 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).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

3. During the emission testing of this emissions unit, the following additional information shall be recorded:
  - i. the pressure drop across the scrubber;
  - ii. the scrubber water flow rate for each control device; and
  - iii. the tons of product produced.
4. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:

Emission Limitations:  
7.3 lbs NO<sub>x</sub>/hr; 32 tons NO<sub>x</sub>/yr

Applicable Compliance Method:

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** NNS Iron & Copper Leaching (P051)

The permittee shall demonstrate compliance with the hourly allowable NOx limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 7.

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

## **VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: NNS Iron & Copper Leaching (P051)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy Ind. Furnace #6 (P060)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Alloy Ind. Furnace #6 (P060)  
 Activity Description: Alloy Induction Furnace #6

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
alloy induction furnace #6 with baghouse and cartridge filter in series	OAC rule 3745-31-05(A)(3) (PTI # 03-4222)	See A.I.2.a.
	OAC rule 3745-17-11(B)	65 lbs particulate emission (PE)/hr (See A.I.2.b.)
	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**

- 2.a The requirements established pursuant to this rule are equivalent to the requirements of OAC rules 3745-17-11(B), and 3745-17-07(A) .
- 2.b Emissions units P046, P060, P064, P065, P066 and P067 are subject to the "grouping" provisions of OAC rule 3745-17-11(A)(3). Therefore, the PE from emissions units P046, P060, P064, P065, P066 and P067, combined, shall not exceed 65 lbs/hr.

**II Operational Restrictions**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy Ind. Furnace #6 (P060)

### **III Monitoring and/or Recordkeeping**

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 visible emissions.

### **IV 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 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.

### **V Testing Requirements**

1. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 1a. Emission Limitation:  
65 lbs PE/hr

**Applicable Compliance Method:**

Compliance with the hourly allowable PE limitation may be determined by multiplying 592.8 lbs/hr (the uncontrolled mass rate of emissions from P046, P060, P064, P065, P066 and P067, combined) 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 Methods 1-5 of 40 CFR Part 60, Appendix A.

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

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy Ind. Furnace #6 (P060)

- 1b. 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 specified in OAC rule 3745-17-03(B)(1).

## **VI Miscellaneous Requirements**

1. The permittee received a PTI in 1989 that required them to maintain 0.01 ug Be/cubic meter monthly average beryllium standard as specified in the NESHAP, 40 CFR paragraph 61.32(b). The PTI did not establish a limit for particulate emissions. The permittee shall submit a complete permit to install application within 2 months following the issuance of this permit, to establish a best available technology PE limitation.

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Alloy Ind. Furnace #6 (P060)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Powder/Chip Leaching Reactor (P061)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Powder/Chip Leaching Reactor (P061)  
 Activity Description: Powder/Chip Leaching Reactor

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
powder/chip leaching operations with packed bed scrubber	OAC rule 3745-31-05(A)(3) (PTI #03-5842)	See A.I.2.a.
	OAC rule 3745-17-11(B)	See A.I.2.b.
	OAC rule 3745-17-07(A)	See A.I.2.c.

2. **Additional Terms and Conditions**

- 2.a There were no emission limitations established pursuant to OAC rule 3745-31-05(A).
- 2.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.
- 2.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.

**II Operational Restrictions**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Powder/Chip Leaching Reactor (P061)

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Powder/Chip Leaching Reactor (P061)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: BeF Calciner (P062)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: BeF Calciner (P062)  
 Activity Description: Beryllium Fluoride Calciner

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
beryllium fluoride rotary calciner with venturi scrubber	OAC rule 3745-31-05(A)(3) (PTI #03-7421)	0.05 pound beryllium (Be)/hour; 0.22 ton Be/year; 0.26 pound particulate emissions (PE)/hour; 1.14 tons PE/year 9.35 pounds flouride/hour; 40.95 tons fluoride/year See A.I.2.a. and A.I.2.b.
	OAC rule 3745-17-11(B)	See A.I.2.c.
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
	OAC rule 3745-18-06(E)	Exempt (see A.I.2.d).
	OAC rule 3745-23-06(B) OAC rule 3745-21-08(B)	See A.I.2.e.

**2. Additional Terms and Conditions**

- 2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-23-06(B) and 3745-21-08(B).

**Facility Name: Brush Wellman Inc.**  
**Facility ID: 0362000009**  
**Emissions Unit: BeF Calciner (P062)**

- 2.b The permittee shall operate and maintain, in good working condition, the scrubbing system at all times to ensure that the scrubbing system is operating at a minimum control efficiency of 97%.
- 2.c The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC 3745-31-05(A)(3).
- 2.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).
- 2.e The permittee has satisfied the "latest available control techniques and operating practices required pursuant to OAC rule 3745-23-06 (B) and the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05 (A) (3) in Permit to Install 03-7421.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the 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 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

## II Operational Restrictions

- 1. The pressure drop across the scrubber (C-9-1-9) shall be continuously maintained within the range of 2 - 12 inches of water at all times while the emissions unit is in operation.
- 2. The gas scrubbing system water flow meters shall be set up as follows:

Flow Meter Location	Alarm Set Points (gpm)		
	Low	Design	High
*****			
Quench Water	31	35	
Primary PTS Sprays (recycled)	82	92	101
Secondary PTS Sprays (recycled)	82	92	101

PTS = Packed Tower Scrubber  
gpm = gallons per minute

## III Monitoring and/or Recordkeeping

- 1. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber's water flow rate while this emissions unit is

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** BeF Calciner (P062)

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

2. The permittee shall collect and record the following information for each day for this emissions unit:
  - a. the pressure drop across the scrubber, in inches of water, on an hourly basis;
  - b. the scrubber water flow rate, in gallons/minute, on an hourly basis ; and
  - c. a log of the downtime for any time periods when the capture system, control device or monitoring equipment were not working while the emissions unit was in operation.

#### **IV Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within or above the required levels:
  - a. The static pressure drop across the scrubber.
  - b. The scrubber water flow rate.

The permittee shall submit deviation (excursion) reports in accordance with the General Term and Condition A.I.c.ii of this permit.

2. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.

#### **V Testing Requirements**

1. The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:
  - 1a. This emissions unit is currently shut down. Emission testing shall be conducted within 60 days after restart. Further testing shall be conducted in accordance with Engineering Guide #16.
  - 1b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for Be, PE, and fluoride.
  - 1c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates:

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** BeF Calciner (P062)

- i. For Be: Methods 1-4 and 29 or 104 of 40 CFR Part 60, Appendix A.
  - ii. For PE: Methods 1-5 of 40 CFR Part 60, Appendix A.
  - iii. For fluoride: Methods 1-4 and 13 of 40 CFR Part 60, Appendix A.
- 1d. The tests 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.
2. 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).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

3. During the emission testing of this emissions unit, the following additional information shall be recorded:
- a. the water flow rates through the scrubber;
  - b. the pressure drop across the scrubber, in inches of water.
4. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following method(s):
- 4a. Emission Limitations:  
0.05 pound Be/hour; 0.22 ton Be/year

**Applicable Compliance Method:**

The permittee shall demonstrate compliance with the hourly allowable Be limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 29 or 104.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** BeF Calciner (P062)

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 be ensured.

- 4b. Emission Limitations:  
0.26 pound PE/hour; 1.14 tons PE/year

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly allowable PE limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 5.

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 be ensured.

- 4c. Emission Limitations:  
9.35 pounds flouride/hour; 40.95 tons fluoride/year

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly allowable flouride limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Methods 1 through 4 and 13A.

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

- 4d. 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 specified in OAC rule 3745-17-03(B)(1).

## **VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: BeF Calciner (P062)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Induction Furnace #1 (P064)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Induction Furnace #1 (P064)  
 Activity Description: Alloy Induction Furnace #1

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
alloy induction furnace #1 with baghouse and cartridge filter in series	OAC rule 3745-17-11(B)	14.8 lbs particulate emission (PE)/hr
	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**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

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;

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Induction Furnace #1 (P064)

- 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 visible emissions.

#### **IV 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 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.

#### **V Testing Requirements**

- 1. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:

- 1a. 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%.

- 1b. 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 specified in OAC rule 3745-17-03(B)(1).

#### **VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Induction Furnace #1 (P064)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Induction Furnace #2 (P065)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Induction Furnace #2 (P065)  
 Activity Description: Alloy Induction Furnace #2

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
alloy induction furnace #2 with baghouse and cartridge filter in series	OAC rule 3745-31-05(A)(3) (PTI # 03-2135)	See A.I.2.a.
	OAC rule 3745-17-11(B)	46.3 lbs particulate emission (PE)/hr (See A.I.2.b.)
	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**

- 2.a The requirements established pursuant to this rule are equivalent to the requirements of OAC rules 3745-17-11(B) and 3745-17-07(A).
- 2.b Emissions units P064, P065, P066 and P067 are subject to the "grouping" provisions of OAC rule 3745-17-11(A)(3). Therefore, the PE from emissions units P064, P065, P066 and P067, combined, shall not exceed 46.3 lbs/hr.

**II Operational Restrictions**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Induction Furnace #2 (P065)

### **III Monitoring and/or Recordkeeping**

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 visible emissions.

### **IV 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 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.

### **V Testing Requirements**

1. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 1a. Emission Limitation:  
46.3 lbs PE/hr

**Applicable Compliance Method:**

Compliance with the hourly allowable PE limitation may be determined by multiplying 392.8 lbs/hr (the uncontrolled mass rate of emissions from P064, P065, P066 and P067, combined) 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%.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Induction Furnace #2 (P065)

- 1b. 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 specified in OAC rule 3745-17-03(B)(1).

## **VI Miscellaneous Requirements**

1. The permittee was issued a PTI in 1985. The PTI required that the permittee comply with the beryllium standard [as specified in the NESHAP, 40 CFR paragraph 61.32(b)] of 0.01 ug Be/cubic meter (as a monthly average) . However, the PTI did not establish a limit for PE. Therefore, the permittee shall submit a complete permit to install application within 2 months following the issuance of this permit to establish a best available technology PE limitation.

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Induction Furnace #2 (P065)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Induction Furnace #3 (P066)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Induction Furnace #3 (P066)  
 Activity Description: Alloy Induction Furnace #3

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
alloy induction furnace #3 with baghouse and cartridge filter in series	OAC rule 3745-31-05(A)(3) (PTI # 03-2135)	See A.I.2.a.
	OAC rule 3745-17-11(B)	46.3 lbs particulate emission (PE)/hr (See A.I.2.b.)
	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**

- 2.a The requirements established pursuant to this rule are equivalent to the requirements of OAC rules 3745-17-11(B) and 3745-17-07(A).
- 2.b Emissions units P064, P065, P066 and P067 are subject to the "grouping" provisions of OAC rule 3745-17-11(A)(3). Therefore, the PE from emissions units P064, P065, P066 and P067, combined, shall not exceed 46.3 lbs/hr.

**II Operational Restrictions**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Induction Furnace #3 (P066)

### **III Monitoring and/or Recordkeeping**

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 visible emissions.

### **IV 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 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.

### **V Testing Requirements**

1. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 1a. Emission Limitation:  
46.3 lbs PE/hr

**Applicable Compliance Method:**

Compliance with the hourly allowable PE limitation may be determined by multiplying 392.8 lbs/hr (the uncontrolled mass rate of emissions from P064, P065, P066 and P067, combined) 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%.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Induction Furnace #3 (P066)

- 1b. 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 specified in OAC rule 3745-17-03(B)(1).

## **VI Miscellaneous Requirements**

1. The permittee was issued a PTI in 1985. The PTI required that the permittee comply with the beryllium standard [as specified in the NESHAP, 40 CFR paragraph 61.32(b)] of 0.01 ug Be/cubic meter (as a monthly average) . However, the PTI did not establish a limit for PE. Therefore, the permittee shall submit a complete permit to install application within 2 months following the issuance of this permit to establish a best available technology PE limitation.

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Induction Furnace #3 (P066)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Induction Furnace #4 (P067)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Induction Furnace #4 (P067)  
 Activity Description: Alloy Induction Furnace #4

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
alloy induction furnace #4 with baghouse and cartridge filter in series	OAC rule 3745-31-05(A)(3) (PTI # 03-791)	See A.I.2.a.
	OAC rule 3745-17-11(B)	26.2 lbs particulate emission (PE)/hr (See A.I.2.b.)
	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**

- 2.a The requirements established pursuant to this rule are equivalent to the requirements of OAC rules 3745-17-11(B) and 3745-17-07(A).
- 2.b Emissions units P064 and P067 are subject to the "grouping" provisions of OAC rule 3745-17-11(A)(3). Therefore, the PE from emissions units P064 and P067, combined, shall not exceed 26.2 lbs/hr.

**II Operational Restrictions**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Induction Furnace #4 (P067)

### **III Monitoring and/or Recordkeeping**

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 visible emissions.

### **IV 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 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.

### **V Testing Requirements**

1. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 1a. Emission Limitation:  
26.2 lbs PE/hr  
  
Applicable Compliance Method:  
Compliance with the hourly allowable PE limitation may be determined by multiplying 196.4 lbs/hr (the uncontrolled mass rate of PE from P064 and P067, combined) 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%.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Induction Furnace #4 (P067)

- 1b. 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 specified in OAC rule 3745-17-03(B)(1).

## **VI Miscellaneous Requirements**

1. The permittee received a PTI in 1979 that required them to maintain 0.01 ug Be/cubic meter monthly average beryllium standard as specified in the NESHAP, 40 CFR paragraph 61.32(b). The PTI did not establish a limit for particulate emissions. The permittee shall submit a complete permit to install application within 2 months following the issuance of this permit, to establish a best available technology PE limitation.

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Induction Furnace #4 (P067)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Furnace Rebuild (P075)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Furnace Rebuild (P075)  
 Activity Description: Furnace Rebuild

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<b><u>Operations, Property, and/or Equipment</u></b>	<b><u>Applicable Rules/Requirements</u></b>	<b><u>Applicable Emissions Limitations/Control Measures</u></b>
cast shop #2 - furnace rebuild for alloy induction furnaces #7 and #8 (P082 and P083) with a baghouse and high efficiency filter in series	OAC 3745-31-05(A) (PTI #03-10823)	0.0015 grain particulate emissions (PE)/dry standard cubic foot (dscf)  1.1 lbs PE/hr and 4.8 tons PE/yr (for emissions units P075, P082, and P083, combined)  0.002 lb beryllium (Be)/hr and 0.009 ton Be/yr (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.  See A.I.2.a and A.I.2.b.  See A.I.2.c.
	OAC rule 3745-17-11(B)	
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Furnace Rebuild (P075)

## **2. Additional Terms and Conditions**

- 2.a** Best available technology (BAT) has been determined to be use of a baghouse and high efficiency filter in series.
- 2.b** The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).
- 2.c** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC 3745-31-05(A)(3).

## **II Operational Restrictions**

None

## **III Monitoring and/or Recordkeeping**

- 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 visible emissions.
- 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 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;

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Furnace Rebuild (P075)

- 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 visible emissions.

#### **IV 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 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.
2. 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 particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

#### **V Testing Requirements**

1. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following method(s):
  - 1a. Emission Limitation -  
0.0015 grain PE/dry standard cubic foot (dscf)  
  
Applicable Compliance Method:  
If required, the permittee shall demonstrate compliance with the grain loading limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5.
  - 1b. Emission Limitations:  
1.1 lbs PE/hr; 4.8 tons PE/year  
  
Applicable Compliance Method:  
If required, the permittee shall demonstrate compliance with the hourly allowable PE limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Furnace Rebuild (P075)

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 be ensured.

- 1c. Emission Limitations:  
0.002 pound Be/hour; 0.009 ton Be/year

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the hourly allowable Be limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 29 or 104.

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 be ensured.

- 1d. 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 specified in OAC rule 3745-17-03(B)(1).

- 1e. Emission Limitation -  
Visible particulate fugitive emissions shall not exceed 0% opacity, as a six-minute average, from the building housing emissions units P075, P082, P083, P086, and P087.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance pursuant to the methods specified in OAC rule 3745-17-03(B)(3).

## **VI 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:
  - 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 condition IV.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.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Furnace Rebuild (P075)

The emergency scenarios and alternative operating scenarios will be evaluated to determine if additional testing and/or operational restrictions are required. If testing is necessary, the permittee shall follow the requirements of condition IV.1.

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Furnace Rebuild (P075)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Walking Reheat Furnace (P076)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Walking Reheat Furnace (P076)  
 Activity Description: Walking Bream Reheat Furnace

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<b><u>Operations, Property, and/or Equipment</u></b>	<b><u>Applicable Rules/Requirements</u></b>	<b><u>Applicable Emissions Limitations/Control Measures</u></b>
alloy/finish building 58.7 MMBtu/hr walking beam reheat furnace #1, with low NOx burners	OAC rule 3745-31-05(A)(5) (PTI #03-9105)	0.96 lb particulate emissions (PE)/hr (See A.I.2.a.)
		0.2 lb organic compounds (OC)/hr (See A.I.2.a.)
		2.5 lbs carbon monoxide (CO)/hr (See A.I.2.a.)
		0.42 lb sulfur dioxide (SO2)/hr (See A.I.2.a.)
		0.12 lb nitrogen oxides (NOx)/MMBtu 7.044 lbs NOx/hr (See A.I.2.a.)
		See A.I.2.b and A.I.2.c.
		See A.I.2.d.
	OAC rule 3745-18-06(E)	See A.I.2.d.
	OAC rule 3745-17-11(B)(1)	See A.I.2.b.
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Walking Reheat Furnace (P076)

See A.I.2.e.

OAC rule 3745-23-06(B)  
OAC rule 3745-21-08(B)

## **2. Additional Terms and Conditions**

- 2.a** Emissions from this emissions unit are attributed solely to natural gas combustion. These emission limits are based on AP-42 emission factors.
- 2.b** Best available technology (BAT) has been determined to be use of low NOx burners.
- 2.c** The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), 3745-23-06(B) and 3745-21-08(B).
- 2.d** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC 3745-31-05(A)(3).
- 2.e** The permittee has satisfied the "latest available control techniques and operating practices required pursuant to OAC rule 3745-23-06 (B) and the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05 (A) (3) in Permit to Install 03-9105.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the 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 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

## **II Operational Restrictions**

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

## **III Monitoring and/or Recordkeeping**

- 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.

## **IV 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.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Walking Reheat Furnace (P076)

## V Testing Requirements

1. The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:
  - 1a. The emission testing shall be conducted within 12 months after issuance of this permit. Further testing shall be conducted in accordance with Engineering Guide #16.
  - 1b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for NO<sub>x</sub>.
  - 1c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates:
    - i. For NO<sub>x</sub>: Methods 1-4 and 7 of 40 CFR Part 60, Appendix A.
  - 1d. The tests 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.
2. 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).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

3. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following method(s):
  - 3a. Emission Limitation:  
0.96 pound lb PE/hr

Applicable Compliance Method:

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Walking Reheat Furnace (P076)

The permittee may demonstrate compliance with the hourly allowable PE limitation by multiplying the emission factor of 1.9 lbs PE/mm cu. ft of natural gas [from AP-42, Table 1.4-2 (revised 7/98)] by the maximum natural gas consumption rate of 58,700 cu. ft./hr.

If required, the permittee shall demonstrate compliance with the PE limitation above pursuant to 40 CFR, Part 60, Appendix A, Methods 1 through 5.

- 3b. Emission Limitation:  
0.2 lb OC/hr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly allowable OC limitation by multiplying the emission factor of 5.5 lbs OC/mm cu. ft. of natural gas [from AP-42, Table 1.4-2 (revised 7/98)] by the maximum natural gas consumption rate of 58,700 cu. ft./hr.

If required, the permittee shall demonstrate compliance with the hourly allowable OC emission limitation pursuant to 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 18, 25, or 25A, as appropriate.

- 3c. Emission Limitation:  
2.5 lbs CO/hr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly allowable CO limitation by multiplying the emission factor of 84 lbs CO/mm cu. ft. of natural gas [from AP-42, Table 1.4-1 (revised 7/98)] by the maximum natural gas consumption rate of 58,700 cu.ft./hr.

If required, the permittee shall demonstrate compliance with the hourly allowable CO emission limitation pursuant to 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 10.

- 3d. Emission Limitation:  
0.42 lb SO<sub>2</sub>/hr

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly allowable SO<sub>2</sub> limitation by multiplying the emission factor of 0.6 lbs SO<sub>2</sub>/mm cu.ft. of natural gas [from AP-42, Table 1.4-2 (revised 7/98)] by the maximum natural gas consumption rate of 58,700 cu. ft./hr.

If required, the permittee shall demonstrate compliance with the hourly allowable SO<sub>2</sub> emission limitation pursuant to 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 6.

- 3e. Emission Limitations:  
0.12 lb NO<sub>x</sub>/MMBtu; 7.044 lbs NO<sub>x</sub>/hr

Applicable Compliance Method:

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Walking Reheat Furnace (P076)

The permittee shall demonstrate compliance with the hourly allowable NO<sub>x</sub> limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 7.

The annual limitation was developed by multiplying the hourly limitation by 8760, and then dividing by 2,000. Therefore, provided compliance with the hourly **NO<sub>x</sub>** limitation is maintained, compliance with the annual **NO<sub>x</sub>** limitation shall be ensured.

- 3f. 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 specified in OAC rule 3745-17-03(B)(1).

## **VI Miscellaneous Requirements**

1. The permittee received permit to install 03-9105 on August 7, 1996. The PTI allowed the installation of this emissions unit and established CO and OC emission limitations calculated using the AP-42, natural gas emission factors. Since the issuance of this permit, the AP-42 emission factors for CO and OC were revised [AP-42 Section 1.4, Natural Gas Combustion (dated 7/98)]. Therefore, as the initial step for this emissions unit to achieve compliance with the applicable requirements, the permittee shall submit a written request for an administrative modification to the PTI and an updated Emissions Activities Category (EAC) form within 2 months following the issuance of this permit.

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Walking Reheat Furnace (P076)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Hot Strip Mill (P077)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Hot Strip Mill (P077)  
 Activity Description: Reversing Hot Strip Mill

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
alloy finish building reversing hot strip mill with baghouse and high efficiency cartridge filter in series	OAC rule 3745-31-05(A)(3) (PTI #03-11224)	0.041 lb particulate emissions (PE)/hour; 0.18 ton PE/year
		0.0032 lb Be/hour; 0.014 ton Be/year
		See A.I.2.a. and A.I.2.b.
	OAC rule 3745-17-11(B)	See A.I.2.c.
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, except as provided by rule.

**2. Additional Terms and Conditions**

- 2.a Best available technology (BAT) for this emissions unit has been determined to be use of a fabric filter and high efficiency cartridge filter.
- 2.b The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A) .
- 2.c The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC 3745-31-05(A)(3).

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Hot Strip Mill (P077)

## **II Operational Restrictions**

None

## **III Monitoring and/or Recordkeeping**

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 visible emissions.

## **IV 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 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.

## **V Testing Requirements**

1. The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:
  - 1a. The emission testing shall be conducted within 12 months after issuance of this permit. Further testing shall be conducted in accordance with Engineering Guide #16.
  - 1b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for PE and Be.
  - 1c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates:

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Hot Strip Mill (P077)

- i. For PE: Methods 1-5 of 40 CFR Part 60, Appendix A;
  - ii. For Be: Methods 1-4 and 29 or 104 of 40 CFR Part 60, Appendix A.
- 1d. The tests 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.
2. 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).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

3. During the emission testing of this emissions unit, the following additional information shall be recorded:
- a. the pressure drop across the particulate control devices.
4. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following method(s):
- 4a. Emission Limitations:  
0.041 lb PE/hr; 0.18 TPY PE

**Applicable Compliance Method:**

The permittee shall demonstrate compliance with the hourly allowable PE limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5.

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 be ensured.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Hot Strip Mill (P077)

- 4b. Emission Limitations:  
0.0032 lb Be/hr; 0.014 TPY Be

**Applicable Compliance Method:**

The permittee shall demonstrate compliance with the hourly allowable Be limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 29 or 104.

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 be ensured.

- 4c. 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 specified in OAC rule 3745-17-03(B)(1).

## **VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Hot Strip Mill (P077)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Annealing/Pickling (P080)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Annealing/Pickling (P080)  
 Activity Description: Continuous Strip Annealing/Pickling

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
alloy finish building continuous strip annealing/pickling with two scrubbers and mist eliminator	OAC rule 3745-31-05(A)(3) (PTI #03-11224)	1.75 lbs/hr particulate emissions (PE) (as NaOH mist); 7.67 tons/yr PE (as NaOH mist)
		See A.I.2.a. and A.I.2. c.
	OAC rule 3745-17-11(B)	See A.I.2.b.
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

**2. Additional Terms and Conditions**

- 2.a Best available technology (BAT) for this emissions unit has been determined to be use of a venturi scrubber and mist eliminator.
- 2.b The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC 3745-31-05(A)(3).
2. c The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Annealing/Pickling (P080)

## **II Operational Restrictions**

1. The Xerxes 713-M packed tower scrubber shall be designed and operated in accordance with the following requirements:
  - a. The pressure drop across the scrubber shall be continuously maintained within a range of 0.5 - 3.5 inches of water at all times while the emissions unit is in operation.
  - b. The scrubber water flow rate shall be continuously maintained at a value of not less than 20 gallons per minute at all times while the emissions unit is in operation.
2. The Xerxes 735-M packed tower scrubber shall be designed and operated in accordance with the following requirements:
  - a. The pressure drop across the scrubber shall be continuously maintained within a range of 0.5 - 3.5 inches of water at all times while the emissions unit is in operation.
  - b. The scrubber water flow rate shall be continuously maintained at a value of not less than 70 gallons per minute at all times while the emissions unit is in operation.

## **III Monitoring and/or Recordkeeping**

1. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubbers and the scrubber water flow rates while this emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
2. The permittee shall collect and record the following information each day for this emissions unit:
  - a. the pressure drop across each scrubber, in inches of water, on a once/shift basis;
  - b. each scrubber water flow rate, in gallons/minute, on a once/shift basis; and
  - c. a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.

## **IV Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within or above the required levels:
  - a. The static pressure drop across the scrubber.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Annealing/Pickling (P080)

b. The scrubber water flow rate.

The permittee shall submit deviation (excursion) reports in accordance with the General Term and Condition A.I.c.ii of this permit.

2. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.

## **V Testing Requirements**

1. The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:
  - 1a. The emission testing shall be conducted within 12 months after issuance of this permit. Further testing shall be conducted in accordance with Engineering Guide #16.
  - 1b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE.
  - 1c. The following test method shall be employed to demonstrate compliance with the allowable mass emission rate:
    - i. For PE: Methods 1-5 of 40 CFR Part 60, Appendix A.
  - 1d. The tests 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.
2. 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).

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.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Annealing/Pickling (P080)

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).

3. During the emission testing of this emissions unit, the following additional information shall be recorded:

a. the pressure drop across the scrubbers, and

b. the scrubber water flow rates.

4. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following method(s):

4a. Emission Limitations:

1.75 lb/hr PE (as NaOH mist) and 7.67 tons/yr PE (as NaOH mist)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly allowable PE limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5.

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 be ensured.

4b. 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 specified in OAC rule 3745-17-03(B)(1).

## **VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Annealing/Pickling (P080)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Strip Finish Pickling (P081)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Strip Finish Pickling (P081)  
 Activity Description: Strip Finishing/Pickling

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
alloy finish building continuous strip annealing/pickling with two scrubbers and mist eliminator	OAC rule 3745-31-05(A)(3) (PTI #03-11224)	0.80 lb/hr particulate emissions (PE) (as NaOH and H2SO4 mist); 3.5 tons/yr PE (as NaOH and H2SO4 mist)
		See A.I.2.a. and A.I.2. c
	OAC rule 3745-17-11(B)	See A.I.2.b.
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

**2. Additional Terms and Conditions**

- 2.a Best available technology (BAT) for this emissions unit has been determined to be use of a venturi scrubber and mist eliminator.
- 2.b The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC 3745-31-05(A)(3).
- 2.c The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Strip Finish Pickling (P081)

## **II Operational Restrictions**

1. The Xerxes 713-M packed tower scrubber shall be designed and operated in accordance with the following requirements:
  - a. The pressure drop across the scrubber shall be continuously maintained within a range of 0.5 - 3.5 inches of water at all times while the emissions unit is in operation.
  - b. The scrubber water flow rate shall be continuously maintained at a value of not less than 10 gallons per minute at all times while the emissions unit is in operation.
2. The Xerxes 735-M packed tower scrubber shall be designed and operated in accordance with the following requirements:
  - a. The pressure drop across the scrubber shall be continuously maintained within a range of 0.5 - 3.5 inches of water at all times while the emissions unit is in operation.
  - b. The scrubber water flow rate shall be continuously maintained at a value of not less than 70 gallons per minute at all times while the emissions unit is in operation.

## **III Monitoring and/or Recordkeeping**

1. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubbers and the scrubber water flow rates while this emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
2. The permittee shall collect and record the following information each day for this emissions unit:
  - a. the pressure drop across each scrubber, in inches of water, ;
  - b. each scrubber water flow rate, in gallons/minute, on a once/shift basis ; and
  - c. a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.

## **IV Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within or above the required levels:
  - a. The static pressure drop across the scrubber.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Strip Finish Pickling (P081)

b. The scrubber water flow rate.

The permittee shall submit deviation (excursion) reports in accordance with the General Term and Condition A.I.c.ii of this permit.

2. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.

## **V Testing Requirements**

1. The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:
  - 1a. The emission testing shall be conducted within 12 months after issuance of this permit. Further testing shall be conducted in accordance with Engineering Guide #16.
  - 1b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE.
  - 1c. The following test method shall be employed to demonstrate compliance with the allowable mass emission rate:
    - i. For PE: Methods 1-5 of 40 CFR Part 60, Appendix A.
  - 1d. The tests 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.
2. 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).

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.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Strip Finish Pickling (P081)

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).

3. During the emission testing of this emissions unit, the following additional information shall be recorded:

a. the pressure drop across the scrubbers, and

b. the scrubber water flow rates.

4. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following method(s):

4a. Emission Limitations:

0.80 lb/hr PE (as NaOH mist) and 3.5 tons/yr PE (as NaOH mist)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly allowable PE limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5.

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 be ensured.

4b. 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 specified in OAC rule 3745-17-03(B)(1).

## **VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Strip Finish Pickling (P081)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy Induction Fce. #7 (P082)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Alloy Induction Fce. #7 (P082)  
 Activity Description: Alloy Induction Furnace #7

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
30-ton alloy electric induction melting/holding furnace #7 with baghouse and high efficiency filter in series	OAC 3745-31-05(A) (PTI #03-10823)	0.0015 grain particulate emissions (PE)/dry standard cubic foot (dscf)  1.1 lbs PE/hr and 4.8 tons PE/yr (for emissions units P075, P082, and P083, combined)  0.002 lb beryllium (Be)/hr and 0.009 ton Be/yr (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.
	OAC rule 3745-17-11(B)	See A.I.2.a and A.I.2.b.
	OAC rule 3745-17-07(A)	See A.I.2.c.  Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy Induction Fce. #7 (P082)

## **2. Additional Terms and Conditions**

- 2.a** Best available technology (BAT) has been determined to be use of a baghouse and high efficiency filter in series.
- 2.b** The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A) .
- 2.c** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC 3745-31-05(A)(3).

## **II Operational Restrictions**

None

## **III Monitoring and/or Recordkeeping**

- 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 visible emissions.
- 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 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;

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy Induction Fce. #7 (P082)

- 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 visible emissions.

#### **IV 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 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.
- 2. 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 particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

#### **V Testing Requirements**

- 1. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following method(s):
  - 1a. Emission Limitation -  
0.0015 grain PE/dry standard cubic foot (dscf)  
  
Applicable Compliance Method:  
If required, the permittee shall demonstrate compliance with the grain loading limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5.
  - 1b. Emission Limitations:  
1.1 lbs PE/hr; 4.8 tons PE/year  
  
Applicable Compliance Method:  
If required, the permittee shall demonstrate compliance with the hourly allowable PE limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy Induction Fce. #7 (P082)

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 be ensured.

- 1c. Emission Limitations:  
0.002 pound Be/hour; 0.009 ton Be/year

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the hourly allowable Be limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 29 or 104.

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 be ensured.

- 1d. 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 specified in OAC rule 3745-17-03(B)(1).

- 1e. Emission Limitation -  
Visible particulate fugitive emissions shall not exceed 0% opacity, as a six-minute average, from the building housing emissions units P075, P082, P083, P086, and P087.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance pursuant to the methods specified in OAC rule 3745-17-03(B)(3).

## **VI 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:
  - 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 condition IV.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.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy Induction Fce. #7 (P082)

The emergency scenarios and alternative operating scenarios will be evaluated to determine if additional testing and/or operational restrictions are required. If testing is necessary, the permittee shall follow the requirements of condition IV.1.

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Alloy Induction Fce. #7 (P082)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy Induction Fce. #8 (P083)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Alloy Induction Fce. #8 (P083)  
 Activity Description: Alloy Induction Furnace #8

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
30-ton alloy electric induction melting/holding furnace #8 with baghouse and high efficiency filter in series	OAC rule 3745-31-05(A) (PTI #03-10823)	0.0015 grain particulate emissions (PE)/dry standard cubic foot (dscf)  1.1 lbs PE/hr and 4.8 tons PE/yr (for emissions units P075, P082, and P083, combined)  0.002 lb beryllium (Be)/hr and 0.009 ton Be/yr (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.
	OAC rule 3745-17-11(B)	See A.I.2.a and A.I.2.b.
	OAC rule 3745-17-07(A)	See A.I.2.c.
		Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy Induction Fce. #8 (P083)

## **2. Additional Terms and Conditions**

- 2.a Best available technology (BAT) has been determined to be use of a baghouse and high efficiency filter in series.
- 2.b The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A) .
- 2.c The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 745-31-05(A)(3).

## **II Operational Restrictions**

None

## **III Monitoring and/or Recordkeeping**

- 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 visible emissions.
- 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 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;

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy Induction Fce. #8 (P083)

- 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 visible emissions.

#### **IV 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 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.
2. 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 particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

#### **V Testing Requirements**

1. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following method(s):
  - 1a. Emission Limitation -  
0.0015 grain PE/dry standard cubic foot (dscf)  
  
Applicable Compliance Method:  
If required, the permittee shall demonstrate compliance with the grain loading limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5.
  - 1b. Emission Limitations:  
1.1 lbs PE/hr; 4.8 tons PE/year  
  
Applicable Compliance Method:  
If required, the permittee shall demonstrate compliance with the hourly allowable PE limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy Induction Fce. #8 (P083)

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 be ensured.

- 1c. Emission Limitations:  
0.002 pound Be/hour; 0.009 ton Be/year

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the hourly allowable Be limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 29 or 104.

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 be ensured.

- 1d. 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 specified in OAC rule 3745-17-03(B)(1).

- 1e. Emission Limitation -  
Visible particulate fugitive emissions shall not exceed 0% opacity, as a six-minute average, from the building housing emissions units P075, P082, P083, P086, and P087.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance pursuant to the methods specified in OAC rule 3745-17-03(B)(3).

## **VI 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:
  - 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 condition IV.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.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy Induction Fce. #8 (P083)

The emergency scenarios and alternative operating scenarios will be evaluated to determine if additional testing and/or operational restrictions are required. If testing is necessary, the permittee shall follow the requirements of condition IV.1.

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Alloy Induction Fce. #8 (P083)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Cast Shop #2, Vacuum (P086)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Cast Shop #2, Vacuum (P086)  
 Activity Description: Cast Shop #2, Vacuum System

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
cast shop vacuum system #2, with primary and secondary filter particulate control in series	OAC rule 3745-31-05(A)(3) (PTI #03-10823)	0.000046 lb particulate emissions (PE)/hr and 0.0002 ton PE/yr
		0.0000079 lb beryllium (Be)/hr and 0.000035 ton Be/yr
		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.
		See A.I.2.a. and A.I.2.b.
	OAC rule 3745-17-11(B)(1)	See A.I.2.c.
	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**

- 2.a Best available technology (BAT) has been determined to be use of a baghouse and high efficiency filter in series.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Cast Shop #2, Vacuum (P086)

- 2.b The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A) .
- 2.c The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

## **II Operational Restrictions**

None

## **III Monitoring and/or Recordkeeping**

- 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 visible emissions.
- 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 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 emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Cast Shop #2, Vacuum (P086)

#### **IV 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 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.
2. 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 particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

#### **V Testing Requirements**

1. The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:
  - 1a. The emission testing shall be conducted within 12 months after issuance of this permit. Further testing shall be conducted in accordance with Engineering Guide #16.
  - 1b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for Be and PE.
  - 1c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates:
    - i. For Be: Methods 1-4 and 29 or 104 of 40 CFR Part 60, Appendix A.
    - ii. For PE: Methods 1-5 of 40 CFR Part 60, Appendix A.
  - 1d. The tests 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.
2. 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).

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Cast Shop #2, Vacuum (P086)

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

3. During the emission testing of this emissions unit, the following additional information shall be recorded:
  - a. the pressure drop across the particulate control devices.
4. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following method(s):
  - 4a. Emission Limitations:  
0.000046 lb PE/hr and 0.0002 ton PE/yr

**Applicable Compliance Method:**

The permittee shall demonstrate compliance with the hourly allowable PE limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 5.

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 be ensured.

- 4b. Emission Limitations:  
0.0000079 lb Be/hr and 0.000035 ton Be/yr

**Applicable Compliance Method:**

The permittee shall demonstrate compliance with the hourly allowable Be limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 29 or 104.

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 be ensured.

- 4c. Emission Limitation -  
Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Cast Shop #2, Vacuum (P086)

Applicable Compliance Method:

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

4d. Emission Limitation -

Visible particulate fugitive emissions shall not exceed 0% opacity, as a six-minute average, from the building housing emissions units P075, P082, P083, P086, and P087.

Applicable Compliance Method:

The permittee shall demonstrate compliance based on the monitoring and recordkeeping in A.III.2. If required, the permittee shall demonstrate compliance pursuant to the methods specified in OAC rule 3745-17-03(B)(3).

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Cast Shop #2, Vacuum (P086)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Finish Mill #2, Vacuum (P087)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Finish Building Vacuum Cleaning (P087)  
 Activity Description: Alloy - Finish Building #2 Vacuum System

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<b><u>Operations, Property, and/or Equipment</u></b>	<b><u>Applicable Rules/Requirements</u></b>	<b><u>Applicable Emissions Limitations/Control Measures</u></b>
alloy finish building vacuum system #2 with a cyclone, primary and secondary particulate control in series	OAC rule 3745-31-05(A)(3) (PTI #03-10823)	0.000051 lb particulate emissions (PE)/hr and 0.00022 ton PE/yr
		0.0000087 lb beryllium (Be)/hr and 0.000038 ton Be/yr
		Visible particulate fugitive emissions shall not exceed 0% opacity, as a six minute average, from the building housing this emissions unit.
		See A.I.2.a. and A.I.2.b.
	OAC rule 3745-17-11(B)(1)	See A.I.2.c.
	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**

- 2.a Best available technology (BAT) has been determined to be use of a baghouse and high efficiency filter in series.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Finish Mill #2, Vacuum (P087)

- 2.b** The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A) .
- 2.c** The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

## **II Operational Restrictions**

None

## **III Monitoring and/or Recordkeeping**

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 visible emissions.
  
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 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 emission incident; and

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Finish Mill #2, Vacuum (P087)

- e. any corrective actions taken to eliminate the visible emissions.

#### **IV 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 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.
2. 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 particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

#### **V Testing Requirements**

1. The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:
  - 1a. The emission testing shall be conducted within 12 months after issuance of this permit. Further testing shall be conducted in accordance with Engineering Guide #16.
  - 1b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for Be and PE.
  - 1c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates:
    - i. For Be: Methods 1-4 and 29 or 104 of 40 CFR Part 60, Appendix A.
    - ii. For PE: Methods 1-5 of 40 CFR Part 60, Appendix A.
  - 1d. The tests 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.
2. 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

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Finish Mill #2, Vacuum (P087)

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).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

3. During the emission testing of this emissions unit, the following additional information shall be recorded:
  - a. the pressure drop across the particulate control devices.
4. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following method(s):
  - 4a. Emission Limitations:  
0.000051 lb PE/hr and 0.00022 ton PE/yr

**Applicable Compliance Method:**

The permittee shall demonstrate compliance with the hourly allowable PE limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 5.

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 be ensured.

- 4b. Emission Limitations:  
0.0000087 lb Be/hr and 0.000038 ton Be/yr

**Applicable Compliance Method:**

The permittee shall demonstrate compliance with the hourly allowable Be limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 29 or 104.

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 be ensured.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Finish Mill #2, Vacuum (P087)

- 4c. 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 specified in OAC rule 3745-17-03(B)(1).

- 4d. Emission Limitation -  
Visible particulate fugitive emissions shall not exceed 0% opacity, as a six-minute average, from the building housing emissions units P075, P082, P083, P086, and P087.

Applicable Compliance Method:

The permittee shall demonstrate compliance based on the monitoring and recordkeeping in A.III.2. If required, the permittee shall demonstrate compliance pursuant to the methods specified in OAC rule 3745-17-03(B)(3).

## **VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Finish Mill #2, Vacuum (P087)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Boiler # 5 (Z001)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Boiler #5 (Z001)  
 Activity Description: Boiler #5, 12 mmBtu/hr, Ames Iron Works, Cat. No. AA3005 (B002)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
12 mmBtu/hour, natural gas/liquified petroleum gas (LPG)-fired boiler #5	OAC rule 3745-17-10(B)	0.02 lb particulate emissions (PE)/mmBtu of actual heat input
	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**

- 2.a OAC rule 3745-18-06 does not establish sulfur dioxide emission limitations for this emissions unit because the emissions unit only employs natural gas/LPG as fuel.

**II Operational Restrictions**

1. The permittee shall burn only natural gas and/or LPG in this emissions unit.

**III Monitoring and/or Recordkeeping**

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

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Boiler # 5 (Z001)

#### **IV Reporting Requirements**

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

#### **V Testing Requirements**

1. Compliance Methods Requirements: Compliance with the emission limitations in Section A.I of the terms and conditions of this permit shall be determined in accordance with the following methods:

- 1a. Emission Limitation: 0.020 lb PE/mmBtu of actual heat input

Applicable Compliance Method: When firing natural gas, the permittee may demonstrate compliance with this limitation by multiplying the maximum hourly natural gas consumption rate (mm cu. ft/hr) by the emission factor from AP-42, Table 1.4-2 (revised 7/98) of 1.9 lbs PE (filtrable)/mm cu. ft, and then dividing by the maximum heat input capacity of the boiler (mmBtu/hr).

When firing LPG, the permittee may demonstrate compliance with this limitation by multiplying the maximum hourly LPG consumption rate (gallons/hr) by the emission factor from AP-42, Table 1.5-1 (revised 10/96) of 0.6 lb PE (filtrable)/1000 gallons of LPG used, and then dividing by the maximum heat input capacity of the boiler (mmBtu/hr).

If required, compliance with the lb/mmBtu PE limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(9).

- 1b. Emission Limitation: Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method: If required, compliance with the visible emissions limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

#### **VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Boiler # 5 (Z001)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Grit Blaster (Z010)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Grit Blaster (Z010)  
 Activity Description: Furnace Rebuild Grit Blasting Operations (P001)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
furnace rebuild grit blasting operations with baghouse	OAC rule 3745-17-07(A)	See A.I.2.a.
	OAC rule 3745-17-11(B)	See A.I.2.b.

2. **Additional Terms and Conditions**

- 2.a 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.
- 2.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.

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Grit Blaster (Z010)

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Grit Blaster (Z010)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Roller Hearth Annealing Furnace (Z093)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Roller Hearth Annealing Furnace (Z093)  
 Activity Description: Heavy Gage Strip - Roller Hearth Annealing Furnace (P009)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
roller hearth annealing furnace (formerly part of P009)	OAC rule 3745-17-07(A)	See A.I.2.a.
	OAC rule 3745-17-11(B)	See A.I.2.b.
	OAC rule 3745-18-06(E)	58.6 lbs SO <sub>2</sub> /hr

2. **Additional Terms and Conditions**

- 2.a 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.
- 2.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.

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Roller Hearth Annealing Furnace (Z093)

**IV Reporting Requirements**

None

**V Testing Requirements**

1. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following method(s):

Emission Limitation:  
58.6 pounds SO<sub>2</sub>/hour

Applicable Compliance Method:  
The emissions unit is assumed to be in compliance with the SO<sub>2</sub> limitation above since the amount of SO<sub>2</sub> generated in this emissions unit is negligible.

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Roller Hearth Annealing Furnace (Z093)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Heavy Gage Vacuum System (Z095)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Heavy Gage Vacuum System (Z095)  
 Activity Description: Heavy Gage Strip - Vacuum Cleaning System (P009)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
heavy gage vacuum system with a cyclone and a baghouse (formerly part of P009)	OAC rule 3745-17-07(A)	See A.I.2.a.
	OAC rule 3745-17-11(B)	See A.I.2.b.

2. **Additional Terms and Conditions**

- 2.a 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.
- 2.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.

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Heavy Gage Vacuum System (Z095)

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Heavy Gage Vacuum System (Z095)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy Calciner (Z100)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Alloy Calciner (Z100)  
 Activity Description: Alloy - Whiting Calciner (P010)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
alloy calciner with baghouse and cartridge filter in series, (formerly permitted as part of emissions unit P010)	OAC rule 3745-31-05(A)(3) (PTI #03-899)	See A.I.2.a.
	OAC rule 3745-17-11(B)	See A.I.2.b.
	OAC rule 3745-17-07(A)	See A.I.2.c.
	OAC rule 3745-18-06(E)	Exempt (See A.I.2.)
	OAC rule 3745-23-06(B) OAC rule 3745-21-08(B)	See A.I.2.

**2. Additional Terms and Conditions**

- 2.a The requirements of this rule also include compliance with the requirements of OAC rules 3745-23-06(B) and 3745-21-08(B).
- 2.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.
- 2.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.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy Calciner (Z100)

**2.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).

**2.e** The permittee has satisfied the "latest available control techniques and operating practices required pursuant to OAC rule 3745-23-06 (B) and the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05 (A) (3) in Permit to Install 03-899.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the 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 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Alloy Calciner (Z100)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Alloy Pelletizer (Z101)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Alloy Pelletizer (Z101)  
 Activity Description: Alloy - Whiting Pelletizer (P010)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
alloy pelletizer with baghouse and cartridge filter in series (formerly permitted as part of emissions unit P010)	OAC rule 3745-31-05(A)(3) (PTI #03-899)	See A.I.2.a.
	OAC rule 3745-17-11(B)	See A.I.2.a.
	OAC rule 3745-17-07(A)	See A.I.2.b.

**2. Additional Terms and Conditions**

- 2.a There were no emission limitations established pursuant to OAC rule 3745-31-05(A).
- 2.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.
- 2.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.

**II Operational Restrictions**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Alloy Pelletizer (Z101)

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Alloy Pelletizer (Z101)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Master Alloy Vacuum Systems (Z103)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Master Alloy Vacuum Systems (Z103)  
 Activity Description: Alloy - Vacuum Systems for Whiting Arc Furnace, Calciner, Pelletizer, and Furnace Rebuild (P010)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
master alloy vacuum systems - vacuum cleaning systems for the whiting arc furnace, calciner, pelletizer, and furnace rebuild, with a cyclone and baghouse (formerly permitted as part of P010)	OAC rule 3745-31-05(A)(3) (PTI #03-899)	See A.I.2.a.
	OAC rule 3745-17-11(B)	See A.I.2.b.
	OAC rule 3745-17-07(A)	See A.I.2.c.

**2. Additional Terms and Conditions**

- 2.a There were no emission limitations established pursuant to OAC rule 3745-31-05(A).
- 2.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.
- 2.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.

**II Operational Restrictions**

*None*

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Master Alloy Vacuum Systems (Z103)

**III Monitoring and/or Recordkeeping**

*None*

**IV Reporting Requirements**

*None*

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Master Alloy Vacuum Systems (Z103)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Skin Machine Shop (Z181)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Skin Machine Shop (Z181)  
 Activity Description: Skin Machine Shop (P018)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
skin machine shop with two baghouses and a cartridge filter, (formerly part of P018)	OAC rule 3745-17-11(B)	See A.I.2.a.
	OAC rule 3745-17-07(A)	See A.I.2.b.

**2. Additional Terms and Conditions**

- 2.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.
- 2.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.

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Skin Machine Shop (Z181)

**IV Reporting Requirements**

*None*

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Skin Machine Shop (Z181)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name: Brush Wellman Inc.**  
**Facility ID: 0362000009**  
**Emissions Unit: Powdering Central Vacuum Systems (Z231)**

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Powdering Central Vacuum Systems (Z231)  
 Activity Description: PMP - Powder Central Vacuum Systems (P023)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
PMP - powdering central vacuum systems, with two cyclones and four baghouses (formerly part of emissions unit P023)	OAC rule 3745-17-11(B)	See A.I.2.a.
	OAC rule 3745-17-07(A)	See A.I.2.b.

**2. Additional Terms and Conditions**

- 2.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.
- 2.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.

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Powdering Central Vacuum Systems (Z231)

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Powdering Central Vacuum Systems (Z231)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Fluoride Decomposition Furnace #6 (Z260)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Fluoride Decomposition Furnace #6 (Z260)  
 Activity Description: Pebble - Fluoride Decomp. Induction Furnace #6 (P026)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
pebble oxide - fluoride decomposition induction furnace #6, with packed bed scrubber which controls all four decomposition furnaces (formerly part of P026)	OAC rule 3745-17-11(B)	8 lbs particulate emissions (PE)/hr (See A.I.2.a.)
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-18-06(E)	Exempt (See A.I.2.b).

**2. Additional Terms and Conditions**

- 2.a Emission units Z260, Z261, Z262 and Z263 are subject to the "grouping" provisions of OAC 3745-17-11(A)(3). Therefore, the PE from emission units Z260, Z261, Z262 and Z263, combined, shall not exceed 8 lbs PE/hr.
- 2.b 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).

**II Operational Restrictions**

1. The packed bed scrubber (C-9-1-14) shall be designed and operated in accordance with the following requirements:

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Fluoride Decomposition Furnace #6 (Z260)

- a. The pressure drop across the scrubber shall be continuously maintained within a range of 1 - 5 inches of water at all times while the emissions unit is in operation.
- b. The scrubber water flow rate shall be continuously maintained at a value of not less than 140 gallons per minute at all times while the emissions unit is in operation.

### **III Monitoring and/or Recordkeeping**

1. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber's water flow rate while this emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
2. The permittee shall collect and record the following information each day for this emissions unit:
  - a. the pressure drop across the scrubber, in inches of water;
  - b. the scrubber water flow rate, in gallons/minute; and
  - c. a log of the downtime for any time periods when the capture system, control device or monitoring equipment were not working while the emissions unit was in operation.

### **IV Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within or above the required levels:
  - a. The static pressure drop across the scrubber.
  - b. The scrubber water flow rate.

The permittee shall submit deviation (excursion) reports in accordance with General Term and Condition A.I.c.ii of this permit.

2. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.

### **V Testing Requirements**

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

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Fluoride Decomposition Furnace #6 (Z260)

- 1.a The emission testing shall be conducted within 60 days after restarting one or more of the fluoride decomposition furnaces. Thereafter, each time an additional furnace achieves the maximum production rate, the permittee shall retest the emission units.
- 1.b The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE.
- 1.c The following test method shall be employed during the emissions testing:
  - i. For PE: Methods 1 - 5 of 40 CFR Part 60, Appendix A.
- 1.d The tests shall be conducted while this emissions unit and emissions units Z261, Z262 and Z263 are operating at or near their maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA district office or local air agency.
2. 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).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

3. During the emission testing of this emissions unit, the following additional information shall be recorded:
  - a. the pressure drop across the scrubber, in inches of water; and
  - b. the scrubber water flow rate.
4. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 4.a Emission Limitation:  
8 lbs PE/hr

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Fluoride Decomposition Furnace #6 (Z260)

**Applicable Compliance Method:**

The permittee shall demonstrate compliance with the hourly allowable PE limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5.

**4.b 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 specified in OAC rule 3745-17-03(B)(1).

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Fluoride Decomposition Furnace #6 (Z260)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Fluoride Decomposition Furnace #7 (Z261)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Fluoride Decomposition Furnace #7 (Z261)  
 Activity Description: Pebble - Fluoride Decomp. Induction Furnace #7 (P026)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
pebble oxide - fluoride decomposition induction furnace #7, with packed bed scrubber which controls all four decomposition furnaces (formerly part of P026)	OAC rule 3745-17-11(B)	8 lbs particulate emissions (PE)/hr (See A.I.2.a.)
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-18-06(E)	Exempt (See A.I.2.b)

**2. Additional Terms and Conditions**

- 2.a Emission units Z260, Z261, Z262 and Z263 are subject to the "grouping" provisions of OAC 3745-17-11(A)(3). Therefore, the PE from emission units Z260, Z261, Z262 and Z263, combined, shall not exceed 8 lbs PE/hr.
- 2.b 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).

**II Operational Restrictions**

1. The packed bed scrubber (C-9-1-14) shall be designed and operated in accordance with the following requirements:

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Fluoride Decomposition Furnace #7 (Z261)

- a. The pressure drop across the scrubber shall be continuously maintained within a range of 1 - 5 inches of water at all times while the emissions unit is in operation.
- b. The scrubber water flow rate shall be continuously maintained at a value of not less than 140 gallons per minute at all times while the emissions unit is in operation.

### **III Monitoring and/or Recordkeeping**

1. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber's water flow rate while this emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
2. The permittee shall collect and record the following information each day for this emissions unit:
  - a. the pressure drop across the scrubber, in inches of water;
  - b. the scrubber water flow rate, in gallons/minute; and
  - c. a log of the downtime for any time periods when the capture system, control device or monitoring equipment were not working while the emissions unit was in operation.

### **IV Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within or above the required levels:
  - a. The static pressure drop across the scrubber.
  - b. The scrubber water flow rate.

The permittee shall submit deviation (excursion) reports in accordance with General Term and Condition A.I.c.ii of this permit.

2. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.

### **V Testing Requirements**

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

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Fluoride Decomposition Furnace #7 (Z261)

- 1.a The emission testing shall be conducted within 60 days after restarting one or more of the fluoride decomposition furnaces. Thereafter, each time an additional furnace achieves the maximum production rate, the permittee shall retest the emission units.
- 1.b The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE.
- 1.c The following test method shall be employed during the emissions testing:
  - i. For PE: Methods 1 - 5 of 40 CFR Part 60, Appendix A.
- 1.d The tests shall be conducted while this emissions unit and emissions units Z260, Z262 and Z263 are operating at or near their maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA district office or local air agency.
2. 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).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

3. During the emission testing of this emissions unit, the following additional information shall be recorded:
  - a. the pressure drop across the scrubber, in inches of water; and
  - b. the scrubber water flow rate.
4. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 4.a Emission Limitation:  
8 lbs PE/hr

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Fluoride Decomposition Furnace #7 (Z261)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly allowable PE limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5.

4.b 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 specified in OAC rule 3745-17-03(B)(1).

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Fluoride Decomposition Furnace #7 (Z261)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Fluoride Decomposition Furnace #8 (Z262)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Fluoride Decomposition Furnace #8 (Z262)  
 Activity Description: Pebble - Fluoride Decomp. Induction Furnace #8 (P026)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
pebble oxide - fluoride decomposition induction furnace #8, with packed bed scrubber which controls all four decomposition furnaces (formerly part of P026)	OAC rule 3745-17-11(B)	8 lbs particulate emissions (PE)/hr (See A.I.2.a.)
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-18-06(E)	Exempt (See A.I.2.b).

**2. Additional Terms and Conditions**

- 2.a Emission units Z260, Z261, Z262 and Z263 are subject to the "grouping" provisions of OAC 3745-17-11(A)(3). Therefore, the PE from emission units Z260, Z261, Z262 and Z263, combined, shall not exceed 8 lbs PE/hr.
- 2.b 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).

**II Operational Restrictions**

1. The packed bed scrubber (C-9-1-14) shall be designed and operated in accordance with the following requirements:

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Fluoride Decomposition Furnace #8 (Z262)

- a. The pressure drop across the scrubber shall be continuously maintained within a range of 1 - 5 inches of water at all times while the emissions unit is in operation.
- b. The scrubber water flow rate shall be continuously maintained at a value of not less than 140 gallons per minute at all times while the emissions unit is in operation.

### **III Monitoring and/or Recordkeeping**

1. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber's water flow rate while this emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
2. The permittee shall collect and record the following information each day for this emissions unit:
  - a. the pressure drop across the scrubber, in inches of water;
  - b. the scrubber water flow rate, in gallons/minute, ; and
  - c. a log of the downtime for any time periods when the capture system, control device or monitoring equipment were not working while the emissions unit was in operation.

### **IV Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within or above the required levels:
  - a. The static pressure drop across the scrubber.
  - b. The scrubber water flow rate.

The permittee shall submit deviation (excursion) reports in accordance with General Term and Condition A.I.c.ii of this permit.

2. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.

### **V Testing Requirements**

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

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Fluoride Decomposition Furnace #8 (Z262)

- 1.a The emission testing shall be conducted within 60 days after restarting one or more of the fluoride decomposition furnaces. Thereafter, each time an additional furnace achieves the maximum production rate, the permittee shall retest the emission units.
- 1.b The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE.
- 1.c The following test method shall be employed during the emissions testing:
  - i. For PE: Methods 1 - 5 of 40 CFR Part 60, Appendix A.
- 1.d The tests shall be conducted while this emissions unit and emissions units Z260, Z261 and Z263 are operating at or near their maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA district office or local air agency.
2. 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).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

3. During the emission testing of this emissions unit, the following additional information shall be recorded:
  - a. the pressure drop across the scrubber, in inches of water; and
  - b. the scrubber water flow rate.
4. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 4.a Emission Limitation:  
8 lbs PE/hr

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Fluoride Decomposition Furnace #8 (Z262)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly allowable PE limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5.

4.b 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 specified in OAC rule 3745-17-03(B)(1).

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Fluoride Decomposition Furnace #8 (Z262)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Fluoride Decomposition Furnace #9 (Z263)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Fluoride Decomposition Furnace #9 (Z263)  
 Activity Description: Pebble - Fluoride Decomp. Induction Furnace #9 (P026)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
pebble oxide - fluoride decomposition induction furnace #9, with a packed bed scrubber (scrubber C-9-1-14) which controls all four decomposition furnaces (formerly part of P026)	OAC rule 3745-17-11(B)	8 lbs particulate emissions (PE)/hr (See A.I.2.a.)
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-18-06(E)	Exempt (See A.I.2.b).

2. **Additional Terms and Conditions**

- 2.a Emission units Z260, Z261, Z262 and Z263 are subject to the "grouping" provisions of OAC 3745-17-11(A)(3). Therefore, the PE from emission units Z260, Z261, Z262 and Z263, combined, shall not exceed 8 lbs PE/hr.
- 2.b 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).

**II Operational Restrictions**

1. The packed bed scrubber (C-9-1-14) shall be designed and operated in accordance with the following requirements:

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Fluoride Decomposition Furnace #9 (Z263)

- a. The pressure drop across the scrubber shall be continuously maintained within a range of 1 - 5 inches of water at all times while the emissions unit is in operation.
- b. The scrubber water flow rate shall be continuously maintained at a value of not less than 140 gallons per minute at all times while the emissions unit is in operation.

### **III Monitoring and/or Recordkeeping**

1. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber's water flow rate while this emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
2. The permittee shall collect and record the following information each day for this emissions unit:
  - a. the pressure drop across the scrubber, in inches of water;
  - b. the scrubber water flow rate, in gallons/minute, ; and
  - c. a log of the downtime for any time periods when the capture system, control device or monitoring equipment were not working while the emissions unit was in operation.

### **IV Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within or above the required levels:
  - a. The static pressure drop across the scrubber.
  - b. The scrubber water flow rate.

The permittee shall submit deviation (excursion) reports in accordance with General Term and Condition A.I.c.ii of this permit.

2. The permittee shall submit quarterly summaries that include a log of the downtime for the capture (collection) system, control device and monitoring equipment when the associated emissions unit was in operation.

### **V Testing Requirements**

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

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Fluoride Decomposition Furnace #9 (Z263)

- 1.a The emission testing shall be conducted within 60 days after restarting one or more of the fluoride decomposition furnaces. Thereafter, each time an additional furnace achieves the maximum production rate, the permittee shall retest the emission units.
- 1.b The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PE.
- 1.c The following test method shall be employed during the emissions testing:
  - i. For PE: Methods 1 - 5 of 40 CFR Part 60, Appendix A.
- 1.d The tests shall be conducted while this emissions unit and emissions units Z260, Z261 and Z262 are operating at or near their maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA district office or local air agency.
2. 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).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

3. During the emission testing of this emissions unit, the following additional information shall be recorded:
  - a. the pressure drop across the scrubber, in inches of water; and
  - b. the scrubber water flow rate.
4. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 4.a Emission Limitation:  
8 lbs PE/hr

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Fluoride Decomposition Furnace #9 (Z263)

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly allowable PE limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5.

4.b 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 specified in OAC rule 3745-17-03(B)(1).

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Fluoride Decomposition Furnace #9 (Z263)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name: Brush Wellman Inc.**  
**Facility ID: 0362000009**  
**Emissions Unit: Reduction Furnace #1 (Z264)**

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Reduction Furnace #1 (Z264)  
 Activity Description: Pebble - Reduction Furnace #1 (P026)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
pebble oxide - reduction furnace #1 with a wet venturi, four wet scrubbers, and two wet cyclones (formerly part of P026)	OAC rule 3745-17-11(B)	See A.I.2.a.
	OAC rule 3745-17-07(A)	See A.I.2.b.
	OAC rule 3745-18-06(E)	Exempt (See A.I.2.c).

**2. Additional Terms and Conditions**

- 2.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.
- 2.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.
- 2.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).

**II Operational Restrictions**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Reduction Furnace #1 (Z264)

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Reduction Furnace #1 (Z264)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Reduction Furnace #2 (Z265)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Reduction Furnace #2 (Z265)  
 Activity Description: Pebble - Reduction Furnace #2 (P026)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
pebble oxide - reduction furnace #2 with a wet venturi, four wet scrubbers, and two wet cyclones (formerly part of P026)	OAC rule 3745-17-11(B)	See A.I.2.a.
	OAC rule 3745-17-07(A)	See A.I.2.b.
	OAC rule 3745-18-06(E)	Exempt (see A.I.2.c)

**2. Additional Terms and Conditions**

- 2.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.
- 2.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.
- 2.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).

**II Operational Restrictions**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Reduction Furnace #2 (Z265)

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Reduction Furnace #2 (Z265)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Reduction Furnace #3 (Z266)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Reduction Furnace #3 (Z266)  
 Activity Description: Pebble - Reduction Furnace #3 (P026)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
pebble oxide - reduction furnace #3 with a wet venturi, four wet scrubbers, and two wet cyclones (formerly part of P026)	OAC rule 3745-17-11(B)	See A.I.2.a.
	OAC rule 3745-17-07(A)	See A.I.2.b.
	OAC rule 3745-18-06(E)	Exempt (see A.I.2.c).

**2. Additional Terms and Conditions**

- 2.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.
- 2.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.
- 2.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).

**II Operational Restrictions**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Reduction Furnace #3 (Z266)

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Reduction Furnace #3 (Z266)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Reduction Furnace #4 (Z267)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Reduction Furnace #4 (Z267)  
 Activity Description: Pebble - Reduction Furnace #4 (P026)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
pebble oxide - reduction furnace #4 with a wet venturi, four wet scrubbers, and two wet cyclones (formerly part of P026)	OAC rule 3745-17-11(B)	See A.I.2.a.
	OAC rule 3745-17-07(A)	See A.I.2.b.
	OAC rule 3745-18-06(E)	Exempt (see A.I.2.c)

**2. Additional Terms and Conditions**

- 2.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.
- 2.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.
- 2.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).

**II Operational Restrictions**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Reduction Furnace #4 (Z267)

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Reduction Furnace #4 (Z267)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Pebble Plant Material Handling (Z268)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Pebble Plant Material Handling (Z268)  
 Activity Description: Pebble - Material Handling - Hammer Mill, Ball Mill, Screening, Thickening, Treating, and Pebble Cleaning (P026)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
pebble plant material handling with packed tower scrubber, which also controls emissions from P021, P022, P026, and P063 (formerly part of emissions unit P026)	OAC rule 3745-17-07(A)	See A.I.2.a.
	OAC rule 3745-17-11(B)	See A.I.2.b.
	OAC rule 3745-21-07(G)	Exempt (see A.I.2.c)

**2. Additional Terms and Conditions**

- 2.a 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.
- 2.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.
- 2.c This emissions unit was installed prior to February 15, 1972. Therefore, there are no applicable regulations/emission limitations for organic compounds for this emissions unit.

**II Operational Restrictions**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Pebble Plant Material Handling (Z268)

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Pebble Plant Material Handling (Z268)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
 Facility ID: 0362000009  
 Emissions Unit: Investment Vacuum Casting (Z820)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Investment Vacuum Casting (Z820)  
 Activity Description: PMP - Investment Vacuum Casting (P082)

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
PMP - investment vacuum casting process with baghouse and cartridge filter in series (formerly identified as emissions unit P082)	OAC rule 3745-31-05(A)(3) (PTI #03-09194)	0.02 lb PM10/hr and 0.0876 tons PM10/yr
		0.006 lb Be/hr and 0.026 tons Be/yr
		See A.I.2.a. and A.I.2.b.
	OAC rule 3745-17-11(B)	See A.I.2.c.
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-18-06(E)	Exempt (see A.I.2.d).

**2. Additional Terms and Conditions**

- 2.a BAT for this emissions unit has been determined to be the use of a fabric and cartridge filters.
- 2.b The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A) .
- 2.c The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC 3745-31-05(A)(3).

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Investment Vacuum Casting (Z820)

2.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).

2.e All PM is considered PM10.

## **II Operational Restrictions**

None

## **III Monitoring and/or Recordkeeping**

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 visible emissions.

## **IV 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 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.

## **V Testing Requirements**

1. The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:
  - 1.a The emission testing shall be conducted within 12 months after issuance of this permit and, thereafter, in accordance with Engineering Guide 16.

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Investment Vacuum Casting (Z820)

- 1.b The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for PM10 and Be.
- 1.c The following test method shall be employed to demonstrate compliance with the allowable mass emission rate:
  - i. For PE: Methods 1-5 of 40 CFR Part 60, Appendix A, including the back half of the sampling train or Methods 201/201A and 202 of 40 CFR Part 51, Appendix M..
  - ii. For Be: Methods 1 through 4 and 29 or 104 of 40 CFR, Part 60, Appendix A.
- 1.d The tests shall be conducted while this emissions unit is operating at or near their maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA district office or local air agency.
2. 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).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s).

3. During the emission testing of this emissions unit, the following additional information shall be recorded:
  - a. the pressure drop across the baghouses, in inches of water.
4. Compliance with the emission limitations specified in Section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 4a. Emission Limitations:  
0.02 lb PM10/hr and 0.0876 ton PM10/yr

Applicable Compliance Method:

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Investment Vacuum Casting (Z820)

The permittee shall demonstrate compliance with the hourly allowable PE limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5.

The annual limitation was developed by multiplying the hourly limitation by 8760, and then dividing by 2,000. Therefore, provided compliance with the hourly PM10 limitation is maintained, compliance with the annual PM10 limitation shall be ensured.

- 4b. Emission Limitations:  
0.006 pound Be/hour and 0.026 ton Be/year

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly allowable Be limitation based on the results of emission testing conducted in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 29 or 104.

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 be ensured.

- 4c. 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 specified in OAC rule 3745-17-03(B)(1).

## **VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Investment Vacuum Casting (Z820)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Vacuum System Cast Shop # 1 (Z958)

**Part III - Terms and Conditions for Emissions Units**

Emissions Unit ID: Vacuum System Cast Shop #1 (Z958)  
 Activity Description: Vacuum Cleaning System - Cast Shop #1 - Furnaces 5,6

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
vacuum system cast shop #1 - furnaces 5 & 6, with two cyclones/multi-clones, and six baghouses	OAC rule 3745-17-11(B)	See A.I.2.a.
	OAC 3745-17-07(A)	See A.I.2.b.
	OAC rule 3745-18-06(E)	Exempt (see A.I.2.c)

**2. Additional Terms and Conditions**

- 2.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.
- 2.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.
- 2.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).

**II Operational Restrictions**

None

**Facility Name:** Brush Wellman Inc.  
**Facility ID:** 0362000009  
**Emissions Unit:** Vacuum System Cast Shop # 1 (Z958)

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None

Facility Name: Brush Wellman Inc.  
Facility ID: 0362000009  
Emissions Unit: Vacuum System Cast Shop # 1 (Z958)

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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**2. Additional Terms and Conditions**

None

**II Operational Restrictions**

None

**III Monitoring and/or Recordkeeping**

None

**IV Reporting Requirements**

None

**V Testing Requirements**

None

**VI Miscellaneous Requirements**

None