

1

Facility Name: **Brush Wellman Inc**

Application Number: **03-1224**

Date: **Draft PTI (date will be entered upon final issuance)**

GENERAL PERMIT CONDITIONS

TERMINATION OF PERMIT TO INSTALL

Substantial construction for installation must take place within 18 months of the effective date of this permit. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

NOTICE OF INSPECTION

The Director of the Ohio Environmental Protection Agency, or his authorized representatives, may enter upon the premises of the above-named applicant during construction and operation at any reasonable time for the purpose of making inspections, conducting tests, or to examine records or reports pertaining to the construction, modification or installation of the source(s) of environmental pollutants identified within this permit.

CONSTRUCTION OF NEW SOURCES

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

If the construction of the proposed source(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of Ohio Administrative Code (OAC) Rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as

2

Facility Name: **Brush Wellman Inc**

Application Number: **03-1224**

Date: **Draft PTI (date will be entered upon final issuance)**

an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet applicable standards.

PERMIT TO INSTALL FEE

In accordance with Ohio Revised Code 3745.11, the specified Permit to Install fee must be remitted within 30 days of the effective date of this permit to install.

PUBLIC DISCLOSURE

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

APPLICABILITY

This Permit to Install is applicable only to the contaminant sources identified. Separate application must be made to the Director for the installation or modification of any other contaminant sources.

Facility Name: **Brush Wellman Inc**

Application Number: **03-1224**

Date: **Draft PTI (date will be entered upon final issuance)**

BEST AVAILABLE TECHNOLOGY

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

PERMIT TO OPERATE APPLICATION

A Permit to Operate application must be submitted to the appropriate field office for each air contaminant source in this Permit to Install. In accordance with OAC Rule 3745-35-02, the application shall be filed no later than thirty days after commencement of operation.

SOURCE OPERATION AFTER COMPLETION OF CONSTRUCTION

This facility is permitted to operate each source described by this permit to install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws and regulations.

4

Facility Name: **Brush Wellman Inc**

Application Number: **03-1224**

Date: **Draft PTI (date will be entered upon final issuance)**

5

Facility Name: **Brush Wellman Inc**

Application Number: **03-1224**

Date: **Draft PTI (date will be entered upon final issuance)**

<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
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AIR EMISSION SUMMARY

The air contaminant emissions units listed below comprise the Permit to Install for **Brush Wellman Inc** located in **Ottawa** County. The emissions units listed below shall not exceed the emission limits/control requirements contained in the table. This condition in no way limits the applicability of any other state or federal regulations. Additionally, this condition does not limit the applicability of additional special terms and conditions of this permit.

Cont'd P089

Ohio EPA Source Number	P080 Modifi- cation
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P088

P077 Modifi- cation	P078 Modifi- cation
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P078 (Mod) Cont'd

P089
Cont'd

P081 Modifi- cation

P081 (Mod)

Facility Name: **Brush Wellman Inc**

Application Number: **03-1224**

Date: **Draft PTI (date will be entered upon final issuance)**

<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
		(pickling solution was changed from sulfuric acid to sodium hydroxide)		
Source Identification Description			Hammer Mill No. 2	
Reversing hot strip mill (correction and/or increase of emission limits because company has obtained better information on emission control equipment and process fluids)	4-High cold rolling mill No. 2 (correction and/or increase of emission limits because company has obtained better information on emission control equipment and process fluids)	Finish pickle line (pickling solution was changed from sulfuric acid to sodium hydroxide-sulfuric acid still used in neutralization tank)		
			Slab Mill No. 2	
	Continuous strip annealing/caustic pickling line			

Facility Name: **Brush Wellman Inc**

Application Number: **03-1224**

Date: **Draft PTI (date will be entered upon final issuance)**

<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
	BAT <u>Determination</u>	Use of a mist eliminator and compliance with the terms and conditions of this permit	Use of a venturi scrubber and mist eliminator and compliance with the terms and conditions of this permit	Use of a mist eliminator and compliance with the terms and conditions of this permit
	Use of fabric filter and high efficiency cartridge filter and compliance with the terms and conditions of this permit		Use of mist eliminator and compliance with the terms and conditions of this permit	
		Use of a venturi scrubber and mist eliminator and compliance with the terms and conditions of this permit		

Facility Name: **Brush Wellman Inc**

Application Number: **03-1224**

Date: **Draft PTI (date will be entered upon final issuance)**

<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
			3745-17-07 (A)	
	<u>Applicable Federal & OAC Rules</u>	3745-17-07 (A)		3745-17-07 (A)
3745-31-05				
			3745-17-11 (B) (3)	
		40 CFR Part 61-32 (b)	3745-31-05	40 CFR Part 61-32 (b)
		3745-17-11 (B) (3)		
		3745-31-05		3745-17-11 (B) (3)
3745-17-07 (A)			3745-17-07 (A)	
		3745-17-07 (A)		
	40 CFR Part 61-32 (b)		40 CFR Part 61-32 (b)	
		3745-17-11 (B) (3)		
3745-17-11 (B) (3)			3745-17-11 (B) (3)	
		3745-31-05		
3745-31-05				
			3745-31-05	

Facility Name: **Brush Wellman Inc**

Application Number: **03-1224**

Date: **Draft PTI (date will be entered upon final issuance)**

<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
Permit Allowable Mass Emissions and/or Control/Usage Requirements	20 percent opacity, as a six minute average except as provided by rule	e ambient monitor requirement)	20 percent opacity, as a six minute average except as provided by rule	
0.041 pound/hour Particulate Emissions (PE), 0.18 TPY PE;	* 0.0014 pound/hour PE, 0.0006 TPY PE;	* 1.75 pounds/hour PE as NaOH mist 7.67 TPY PE as NaOH mist	* 0.01 ug/m ³ (facility-wide ambient monitor requirement)	
0.0032 pound/hour Be, 0.014 TPY Be (See Additional Special Term and Conditions Section A)	0.00024 pound/hour Be, 0.0011 TPY Be; 20 percent opacity, as a six minute average except as provided by rule	20 percent opacity, as a six minute average except as provided by rule	* 0.0023 pound/hour PE, 0.01 TPY PE 0.0004 pound/hour Be, 0.0017 TPY Be;	
	0.01 ug/m ³ (facility-wide ambient monitor requirement)	0.01 pound/hour PE, 0.05 TPY PE	0.01 ug/m ³ (facility-wide ambient monitor requirement)	
	0.0017 pound/hour Be, 0.0074 TPY Be;	0.0017 pound/hour Be,	* 0.0017 TPY Be;	

Facility Name: **Brush Wellman Inc**

Application Number: **03-1224**

Date: **Draft PTI (date will be entered upon final issuance)**

- * Applicable requirements established by this OAC rule are less stringent than requirements established by OAC rule 3745-31-05.

SUMMARY

TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons/Year</u>
PE	11.42*
Be	0.024*

*Note: PE emissions from these sources include emissions of Be and all PE emissions are assumed PM₋₁₀. The net increase of PE emissions as a result of these modifications/new installations is 11.24 TPY. This is a net decrease of 0.002 TPY Be emissions as a result of these modifications/new installations.

NESHAP REQUIREMENTS

The following source(s) are subject to the applicable provisions of the National Emission Standards for Hazardous Air Pollutants

(NESHAP) as promulgated by the United States Environmental Protection Agency under 40 CFR Part 61.

<u>Source Number</u>	<u>Source Description</u>	<u>NESHAP Regulation (Subpart)</u>
P077, P078, P088 and P089	See Air Emissions Summary Page	40 CFR 61.32(b)

11

Facility Name: **Brush Wellman Inc**

Application Number: **03-1224**

Date: **Draft PTI (date will be entered upon final issuance)**

The application and enforcement of these standards are delegated to Ohio EPA. The requirements of 40 CFR Part 61 are also federally enforceable.

Pursuant to the NESHAP, the source owner/operator is required to report the following milestones:

- a. date of commencement of construction (no later than 30 days after such date);
- b. anticipated date of initial start-up (not more than 60 days or less than 30 days prior to such date);
- c. actual date of initial start-up (within 15 days after such date); and
- d. date of performance testing (at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P.O. Box 163669
Columbus, OH 43216-3669

and **Ohio EPA, Northwest District Office**
347 North Dunbridge Road
Bowling Green, OH 43402

RECORD(S) RETENTION AND AVAILABILITY

All records required by this Permit to Install shall be retained on file for a period of not less than three years unless otherwise indicated by Ohio Environmental Protection Agency. All records shall be made available to the Director, or any representative of the Director, for review during normal business hours.

REPORTING REQUIREMENTS

Unless otherwise specified, reports required by the Permit to Install need only be submitted to **Ohio EPA, Northwest District Office, 347 North Dunbridge Road, Bowling Green, OH 43402.**

12

Facility Name: **Brush Wellman Inc**

Application Number: **03-1224**

Date: **Draft PTI (date will be entered upon final issuance)**

WASTE DISPOSAL

The owner/operator shall comply with any applicable state and federal requirements governing the storage, treatment, transport and disposal of any waste material generated by the operation of the sources.

MAINTENANCE OF EQUIPMENT

This source and its associated air pollution control system(s) shall be maintained regularly in accordance with good engineering practices and the recommendations of the respective manufacturers in order to minimize air contaminant emissions.

MALFUNCTION/ABATEMENT

In accordance with OAC RULE 3745-15-06, any malfunction of the source(s) or associated air pollution control system(s) shall be reported immediately to the **Ohio EPA, Northwest District Office, 347 North Dunbridge Road, Bowling Green, OH 43402.**

Except as provided by OAC Rule 3745-15-06(A) (3), scheduled maintenance of air pollution control equipment that requires the shutdown or bypassing of air pollution control system(s) must be accompanied by the shutdown of the associated air pollution sources.

AIR POLLUTION NUISANCES PROHIBITED

The air contaminant source(s) identified in this permit may not cause a public nuisance in violation of OAC Rule 3745-15-07.

ADDITIONAL SPECIAL TERMS AND CONDITIONS

Introduction

This Permit to Install (PTI) modifies PTI No. 03-9105 issued August 7, 1996 by revising emissions limitations for previously

Facility Name: **Brush Wellman Inc**

Application Number: **03-1224**

Date: **Draft PTI (date will be entered upon final issuance)**

permitted emissions units and providing for the installation of new emissions units. The modifications are as follows:

Previously permitted emissions units:

<u>Emissions Unit Number</u>	<u>Emissions Unit Identification</u>
P077	Reversing Hot Strip Mill
P078	4-High Cold Rolling Mill No. 2
P080	Continuous Strip Annealing/Pickling
	Line
P081	Finish Pickle Line

New emissions units:

<u>Emissions Unit Number</u>	<u>Emissions Unit Identification</u>
P088	Slab Mill No. 2
P089	Hammer Mill No. 2

A. Applicable Emission Limitations and/or Control Requirements

1. The ambient concentration of Be in the vicinity of the facility shall not exceed 0.01 ug/cu m, 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 implemented control measures for these emission units and all other Be emitting emission units at the facility.

B. Operational Restrictions

1. The pressure drop across the baghouse associated with emission unit P077 shall be maintained within the ranges specified by the baghouse manufacturer while the emissions units are in operation.
2. The pressure drop across and the water flow rate of the scrubbers associated with emissions units P080 and P081 shall be continuously maintained at values specified by the scrubber manufacturers at all times the emissions units are in operation.

Facility Name: **Brush Wellman Inc**

Application Number: **03-1224**

Date: **Draft PTI (date will be entered upon final issuance)**

C. Monitoring and Recordkeeping Requirements

1. The permittee shall properly operate, and maintain equipment to monitor the pressure drop across the baghouse associated with emissions unit P077 while the emissions 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 once per shift basis.
2. The permittee shall properly install, operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber water flow rate while the 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 each day:
 - a. the pressure drop across the scrubber, in inches of water, on a once per shift basis;
 - b. the scrubber water flow rate, in gallons per minute, on a once per shift basis; and,
 - c. the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
4. The permittee shall operate an ambient monitoring network in compliance with the provisions of 40 CFR 61.34 and as approved by the Ohio EPA. All sites and monitors are to be quality assured in accordance with 40 CFR 58, Appendix A (The requirements listed as for lead are to be followed). This will require quarterly audits of at least 25 percent of the monitoring sites 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 are to be at the highest reading sites as per 40 CFR 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

Facility Name: **Brush Wellman Inc**

Application Number: **03-1224**

Date: **Draft PTI (date will be entered upon final issuance)**

permittee.

5. The permittee shall maintain annual records of the hours of operation for emissions units P077, P078, P080, P081, P088, and P089.

D. Reporting Requirements

1. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, the probable cause of such deviations, and any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Ohio EPA, Northwest District Office. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted 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. A report of all concentrations monitored by the ambient monitoring network required by condition (d) (4) above shall be submitted by registered letter every 30 days to the Northwest District Office of the Ohio EPA. The data are also to be submitted in Aerometric Information and Retrieval System (AIRS) format on forms provided by the Ohio EPA unless the data are transmitted by electronic means or on computer disk in AIRS format to the Ohio EPA within 30 days of the end of each month.
3. Within 6 months from the issuance of this permit, the permittee shall submit a report which identifies the operational pressure drop ranges and water flow rates for all particulate matter control devices for emissions units P077, P078, P080, P081, P088, and P089. If startup of equipment has not occurred by this date, the permittee may request an extension for this reporting.
4. The compliance status of the emissions unit shall be reported pursuant to

Facility Name: **Brush Wellman Inc**

Application Number: **03-1224**

Date: **Draft PTI (date will be entered upon final issuance)**

the annual certification required by OAC rule 3745-77-07(C)(5).

5. The actual annual emissions data for the emissions unit shall be reported pursuant to the fee emissions report required by OAC rule 3745-78-02(A).

E. Testing Requirements/Compliance Method Determinations

1. Compliance with the emission limitations shall be determined in accordance with the following method(s):

- a. **For Emissions Unit P077**

Emission Limitation

0.041 lb/hr PE and 0.18 TPY PE

Applicable Compliance Method

Compliance with the PE emission limitation shall be determined by calculating the hourly and annual PE emission rates through use of the company's engineering estimates. If required by Ohio EPA, compliance shall be determined in accordance with Method 5 of 40 CFR Part 60, Appendix A.

Emission Limitation

0.006 lb/hr Be and 0.03 TPY Be

Applicable Compliance Method

Compliance with the Be emission limitation shall be determined by calculating the hourly and annual Be emission rates through use of the company's engineering estimates.

Emission Limitation

20 percent opacity, except as provided by rule

Applicable Compliance Method

OAC rule 3745-17-03(B)(1).

Emission Limitation

0.01 ug/m³ (facility-wide ambient monitor requirement)

17

Facility Name: **Brush Wellman Inc**

Application Number: **03-1224**

Date: **Draft PTI (date will be entered upon final issuance)**

Applicable Compliance Method

Compliance with this limit shall be based on data collected as required in condition C.4 of this permit.

b. **For Emissions Unit P078**

Emission Limitation

0.0014 lb/hr PE and 0.006 TPY PE

Facility Name: **Brush Wellman Inc**

Application Number: **03-1224**

Date: **Draft PTI (date will be entered upon final issuance)**

Applicable Compliance Method

Compliance with the PE emission limitation shall be determined by calculating the hourly and annual PE emission rates through use of the company's engineering estimates. If required by Ohio EPA, compliance shall be determined in accordance with Method 5 of 40 CFR Part 60, Appendix A.

Emission Limitation

0.00024 lb/hr Be and 0.0011 TPY Be

Applicable Compliance Method

Compliance with the Be emission limitation shall be determined by calculating the hourly and annual Be emission rates through use of the company's engineering estimates.

Emission Limitation

20 percent opacity, except as provided by rule

Applicable Compliance Method

OAC rule 3745-17-03(B)(1).

Emission Limitation

0.01 ug/m³ (facility-wide ambient monitor requirement)

Applicable Compliance Method

Compliance with this limit shall be based on data collected as required in condition C.4 of this permit.

c. **For Emissions Unit P080**

Emission Limitation

1.75 lbs/hr PE as NaOH mist and 7.67 TPY as NaOH mist

Facility Name: **Brush Wellman Inc**

Application Number: **03-1224**

Date: **Draft PTI (date will be entered upon final issuance)**

Applicable Compliance Method

Compliance with the PE emission limitation shall be determined by calculating the hourly and annual PE emission rates through use of the company's engineering estimates. If required by Ohio EPA,

compliance shall be determined in accordance with Method 5 of 40 CFR Part 60, Appendix A.

d. **For Emissions Unit P081**

Emission Limitation

0.80 lb/hr as NaOH and H₂SO₄ mist and 3.50 as NaOH and H₂SO₄ mis TPY NaOH

Applicable Compliance Method

Compliance with the PE emission limitation shall be determined by calculating the hourly and annual PE emission rates through use of the company's engineering estimates. If required by Ohio EPA, compliance shall be determined in accordance with Method 5 of 40 CFR Part 60, Appendix A.

e. **For Emissions Unit P088**

Emission Limitation

0.01 lb/hr PE and 0.05 TPY PE

Applicable Compliance Method

Compliance with the PE emission limitation shall be determined by calculating the hourly and annual PE emission rates through use of the company's engineering estimates. If required by Ohio EPA, compliance shall be determined in accordance with Method 5 of 40 CFR Part 60, Appendix A.

Emission Limitation

Facility Name: **Brush Wellman Inc**

Application Number: **03-1224**

Date: **Draft PTI (date will be entered upon final issuance)**

0.0017 lb/hr Be and 0.0074 TPY Be

Applicable Compliance Method

Compliance with the Be emission limitation shall be determined by calculating the hourly and annual Be emission rates through use of the company's engineering estimates.

Emission Limitation

20 percent opacity, except as provided by rule

Applicable Compliance Method

OAC rule 3745-17-03(B)(1).

Emission Limitation

0.01 ug/m³ (facility-wide ambient monitor requirement)

Applicable Compliance Method

Compliance with this limit shall be based on data collected as required in condition C.4 of this permit.

f. **For Emissions Unit P089**

Emission Limitation

0.0023 lb/hr PE and 0.01 TPY PE

Applicable Compliance Method

Compliance with the PE emission limitation shall be determined by calculating the hourly and annual PE emission rates through use of the company's engineering estimates. If required by Ohio EPA, compliance shall be determined in accordance with Method 5 of 40 CFR Part 60, Appendix A.

Emission Limitation

0.0004 lb/hr Be and 0.0017 TPY Be

Applicable Compliance Method

21

Facility Name: **Brush Wellman Inc**

Application Number: **03-1224**

Date: **Draft PTI (date will be entered upon final issuance)**

Compliance with the Be emission limitation shall be determined by calculating the hourly and annual Be emission rates through use of the company's engineering estimates.

Emission Limitation

20 percent opacity, except as provided by rule

Applicable Compliance Method

OAC rule 3745-17-03(B)(1).

Emission Limitation

0.01 ug/m³ (facility-wide ambient monitor requirement)

22

Facility Name: **Brush Wellman Inc**

Application Number: **03-1224**

Date: **Draft PTI (date will be entered upon final issuance)**

Applicable Compliance Method

Compliance with this limit shall be based on data collected as required in condition C.4 of this permit.

Note: No term and condition specifying a method for demonstrating compliance with any emission limitation or other requirement of this permit shall preclude the use by any person of any credible evidence to establish compliance with or a violation of this permit, the Clean Air Act, or any implementing regulations or rules promulgated thereunder.

F. Miscellaneous Requirements

1. Compliance with the Air Toxics Policy is required as part of Best Available Technology (BAT).