# **BRUSH WELLMAN INC**

#### FORM 10-K405

(Annual Report (Regulation S-K, item 405))

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Fiscal Year 12/31



# UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

# **FORM 10-K**

(Mark One)

# [X] ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 1999

OR

# [ ] TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from to

Commission file number 1-7006

### **BRUSH WELLMAN INC.**

(Exact name of Registrant as specified in charter)

OHIO (State or other jurisdiction of incorporation or organization)

17876 ST. CLAIR AVENUE, CLEVELAND, OHIO (Address of principal executive offices)

34-0119320 (I.R.S. Employer Identification No.)

> 44110 (Zip Code)

#### REGISTRANT'S TELEPHONE NUMBER, INCLUDING AREA CODE 216-486-4200

#### SECURITIES REGISTERED PURSUANT TO SECTION 12(b) OF THE ACT:

TITLE OF EACH CLASS

NAME OF EACH EXCHANGE ON WHICH REGISTERED

Common Stock, par value \$1 per share

New York Stock Exchange

#### SECURITIES REGISTERED PURSUANT TO SECTION 12(g) OF THE ACT:

#### None

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes [X] No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. [X]

The aggregate market value of Common Stock, par value \$1 per share, held by non-affiliates of the registrant (based upon the closing sale price on the New York Stock Exchange) on March 6, 2000 was approximately \$251,656,185.

As of March 6, 2000, there were 16,332,758 shares of Common Stock, par value \$1 per share, outstanding.

#### DOCUMENTS INCORPORATED BY REFERENCE

Portions of the proxy statement for the annual meeting of shareholders to be held on May 2, 2000 are incorporated by reference into Part III.	

#### BRUSH WELLMAN INC.

#### FORM 10-K ANNUAL REPORT FOR THE FISCAL YEAR ENDED DECEMBER 31, 1999

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#### PART I

Portions of the narrative set forth in this document that are not historical in nature are forward-looking statements. Brush Wellman Inc.'s (the "Company") actual future performance may differ from that contemplated by the forward-looking statements as a result of a variety of factors. These factors include, in addition to those mentioned elsewhere herein, the condition of the markets which the Company serves (especially as impacted by events in particular markets including telecommunications, automotive, and computer, or in particular geographic regions, such as Asia), the success of the Company's strategic plans, the timely and successful completion of pending capital expansions, and the outcome of pending litigation matters.

#### **ITEM 1. BUSINESS**

Brush Wellman Inc. is a leading international producer and supplier of high-performance engineered materials and is the only fully-integrated producer of beryllium, beryllium-containing alloys and beryllia ceramic in the world. In addition the Company produces Engineered Material Systems and precious metal and specialty alloy products. As of December 31, 1999 the Company had 2,257 employees.

The Company operates two primary business groups, the Metal Systems Group and the Microelectronics Group. Corporate and certain unallocated costs, non-operating items of other income and expense, and the revenues and related costs from one manufacturing facility are included in All Other. As of December 31, 1999 the All Other group had 193 employees.

#### METAL SYSTEMS GROUP

The Metals Systems Group is comprised of Alloy Products (primarily copper beryllium), Beryllium Products and Engineered Materials Systems (produced by the Company's wholly-owned subsidiary, Technical Materials, Inc. (TMI)). In 1999, 67% of the Company's sales were from this segment (72% in 1998 and 70% in 1997). As of December 31, 1999 the Metal Systems Group had 1,544 employees.

Alloy Products are metallurgically tailored to meet specific customer performance requirements. Copper beryllium alloys exhibit high electrical and thermal conductivities, high strength and hardness, good formability and excellent resistance to corrosion wear and fatigue. These alloys, sold in strip and bulk form, are ideal choices for demanding applications in computers, telecommunications, automotive electronics, aerospace, oil exploration, undersea fiber optic cables, and plastic mold tooling.

Beryllium Products include beryllium, AlBeMet(R), AlBeCast(R) and E-materials. Beryllium is a lightweight metal possessing unique mechanical and thermal properties. Its specific stiffness is much greater than other engineered structured materials such as aluminum, titanium and steel. Beryllium is extracted from both bertrandite and imported beryl ore. The Company holds extensive mineral rights and mines the bertrandite in central Utah. Beryllium products are used in a variety of high-performance applications, primarily, but not exclusively, in defense and aerospace markets.

Beryllium-containing products are sold in competitive markets throughout the world through a direct sales organization and through company owned and independent distribution centers. NGK Metals Corporation of Reading, Pennsylvania and NGK Insulators, Ltd. of Nagoya, Japan compete with the Company in the beryllium alloys field. Beryllium alloys also compete with other generally less expensive materials, including phosphor bronze, stainless steel and other specialty copper and nickel alloys. While the Company is the only domestic producer of the metal beryllium, it competes with other fabricators as well as with designs utilizing other materials.

Engineered Materials Systems, manufactured by TMI, are combinations of precious and non-precious metals in continuous strip form, and are used in complex electronic and electrical components in telecommunications systems, automobiles and computers. Divisions of Cookson, Metallon and several European manufacturers are competitors for the sale of inlaid strip. Strip with selective electroplating is a competitive alternative as are other design approaches. TMI's products are sold directly and through its sales representatives.

#### METAL SYSTEMS GROUP -- SALES AND BACKLOG

The backlog of unshipped orders as of December 31, 1999, 1998 and 1997 was \$91,844,000, \$81,199,000 and \$78,662,000, respectively. Backlog is generally represented by purchase orders that may be terminated under certain conditions. The Company expects that, based on recent experience, substantially all of its backlog of orders for this segment at December 31, 1999 will be filled during 2000.

Sales are made to approximately 3,600 customers. Government sales, principally subcontracts, accounted for about 2.0% of Metal Systems Group sales in 1999 as compared to 2.4% in 1998 and 1.6% in 1997. Sales outside the United States, principally to Western Europe, Canada and Asia, accounted for approximately 34% of Metal Systems Group sales in 1999, 35% in 1998 and 34% in 1997. Other segment reporting and geographic information is set forth in Note N to the Consolidated Financial Statements and in Item 7 -- "Management's Discussion and Analysis of Financial Condition and Results of Operations."

#### METAL SYSTEMS GROUP -- RESEARCH AND DEVELOPMENT

Active research and development programs seek new product compositions and designs as well as process innovations. Expenditures for research and development amounted to \$6,799,000 in 1999, \$6,628,000 in 1998 and \$5,531,000 in 1997. A staff of 41 scientists, engineers and technicians was employed in this effort during 1999. Some research and development projects were externally sponsored. Expenditures related to those externally sponsored projects were not material in 1999, 1998 and 1997 and are excluded from the above totals.

#### MICROELECTRONICS GROUP

The Microelectronics Group is comprised of Williams Advanced Materials Inc. (WAM), a wholly-owned subsidiary of the Company, and Electronic Products (formerly Ceramics). In 1999, 31% of the Company's sales were from this segment (26% in 1998 and 29% in 1997). As of December 31, 1999 the Microelectronics Group had 520 employees.

WAM manufactures and fabricates precious metal and specialty metal products for the hybrid microelectronics, semiconductors, optical media, electron tube, magnetic head including MR and GMR materials, crystal, aerospace, and performance film industries. WAM's major product lines include vapor deposition materials, high-temperature braze materials, clad and precious metal preforms, ultra fine wire, sealing lids for the semiconductor/hybrid markets and restorative dental alloys.

WAM's principal competition includes companies such as Sumitomo Metals, Tanaka Metals, Johnson Matthey, Engelhard, and a number of smaller regional or national suppliers. WAM's products are sold directly from WAM's facilities in Buffalo, New York and Singapore as well as through direct sales offices and independent sales representatives throughout the world.

Electronic Products manufactures beryllia ceramics, powder metallurgy, thick film metalization and component assemblies. These products are used in wireless communications, automotive, medical and aerospace applications. CBL Ltd. is a competitor in beryllia ceramic. Other competitive materials include alumina, aluminum nitride and composites.

#### MICROELECTRONICS GROUP -- SALES AND BACKLOG

The backlog of unshipped orders as of December 31, 1999, 1998 and 1997 was \$20,283,000, \$11,606,000 and \$15,292,000, respectively. Backlog is generally represented by purchase orders that may be terminated under certain conditions. The Company expects that, based on recent experience, substantially all of its backlog of orders for this segment at December 31, 1999 will be filled during 2000.

Sales are made to approximately 1,300 customers. Government sales, principally subcontracts, accounted for less than 0.1% of Microelectronics Group sales in 1999, 1998 and 1997. Sales outside the United States, principally to Western Europe, Canada and Asia, accounted for approximately 23% of Microelectronics Group sales in 1999, 25% in 1998 and 32% in 1997. Other segment reporting and geographic information is set forth

in Note N to the Consolidated Financial Statements and in Item 7 -- "Management's Discussion and Analysis of Financial Condition and Results of Operations."

#### MICROELECTRONICS GROUP -- RESEARCH AND DEVELOPMENT

Active research and development programs seek new product compositions and designs as well as process innovations. Expenditures for research and development amounted to \$1,707,000 in 1999, \$2,037,000 in 1998 and \$2,176,000 in 1997. A staff of 14 scientists, engineers and technicians was employed in this effort during 1999.

#### **GENERAL**

#### AVAILABILITY OF RAW MATERIALS

The more important raw materials used by the Company are beryllium (extracted from both imported beryl ore and bertrandite mined from the Company's Utah properties), copper, gold, silver, nickel, platinum and palladium. The availability of these raw materials, as well as other materials used by the Company, is adequate and generally not dependent on any one supplier. Certain items are supplied by a preferred single source, but alternatives are believed readily available.

#### PATENTS AND LICENSES

The Company owns patents, patent applications and licenses relating to certain of its products and processes. While the Company's rights under the patents and licenses are of some importance to its operations, the Company's businesses are not materially dependent on any one patent or license or on the patents and licenses as a group.

#### REGULATORY MATTERS

The Company is subject to a variety of laws including those which regulate the use, handling, treatment, storage, discharge and disposal of substances and hazardous wastes used or generated in the Company's manufacturing processes. The inhalation of airborne beryllium particulate may present a health hazard to certain individuals. For decades the Company has operated its beryllium facilities under stringent standards of inplant and outplant discharge. These standards, which were first established by the Atomic Energy Commission over forty years ago, were, in general, substantially adopted by the United States Environmental Protection Agency (the "U.S. EPA") and the Occupational Safety and Health Administration ("OSHA"). The Government has continued to review these standards, and governmental agencies continue to debate their adequacy. The Department of Energy has proposed chronic beryllium disease preventive regulations for occupational exposure to beryllium at Department of Energy facilities. The Company continues to be the subject of media coverage concerning the beryllium industry and chronic beryllium disease. These reports, and others similar to them, may exacerbate the regulatory and litigation environment in which the Company operates.

#### **ITEM 2. PROPERTIES**

The material properties of the Company, all of which are owned in fee except as otherwise indicated, are as follows:

#### MANUFACTURING FACILITIES

BREWSTER, NEW YORK -- A 35,000 square foot facility on a 6.0 acre site for manufacturing services relating to non-precious metals.

BUFFALO, NEW YORK -- A complex of approximately 97,000 square feet on a 3.8 acre site providing facilities for manufacturing, refining and laboratory services relating to high purity precious metals.

DELTA, UTAH -- An ore extraction plant consisting of 86,000 square feet of buildings and large outdoor facilities situated on a two square mile site. This plant extracts beryllium from bertrandite ore from the Company's mines as well as from imported beryl ore.

ELMORE, OHIO -- A complex containing approximately 856,000 square feet of building space on a 439 acre plant site. This facility employs diverse chemical, metallurgical and metalworking processes in the production of beryllium, beryllium oxide, beryllium alloys and related products. Beryllium ore concentrate from the Delta, Utah plant is used in all beryllium-containing products.

FREMONT, CALIFORNIA -- A 16,800 square foot leased facility for the fabrication of precision electron beam welded, brazed and diffusion bonded beryllium structures.

JUAB COUNTY, UTAH -- The Company holds extensive mineral rights in Juab County, Utah from which the beryllium bearing ore, bertrandite, is mined by the open pit method. A substantial portion of these rights is held under lease. Ore reserve data is set forth on page 18.

LINCOLN, RHODE ISLAND -- A manufacturing facility consisting of 124,000 square feet located on seven and one-half acres. This facility produces reel-to-reel strip metal products which combine precious and non-precious metals in continuous strip form and related metal systems products.

LORAIN, OHIO -- A manufacturing facility consisting of 55,000 square feet located on 15 acres. This facility produces metal alloys in electronic induction furnaces which are continually cast into bar stock and heat treated.

NEWBURYPORT, MASSACHUSETTS -- A 30,000 square foot manufacturing facility on a four acre site that produces alumina, beryllia ceramic and direct bond copper products.

OCEANSIDE, CALIFORNIA -- A 12,000 square foot leased facility on .75 acres of leased land. Over two-thirds of the facility is comprised of clean rooms which meet the Mil. Stds. 209D requirements, for the production of thick-film circuits and other complex circuits.

SHOEMAKERSVILLE (READING), PENNSYLVANIA -- A 123,000 square foot plant on a ten acre site that produces thin precision strips of beryllium copper and other alloys and beryllium copper rod and wire.

TUCSON, ARIZONA -- A 63,000 square foot plant on a ten acre site for the manufacture of beryllia ceramic parts from beryllium oxide powder supplied by the Elmore, Ohio facility and for the manufacture of metal matrix composites.

WHEATFIELD, NEW YORK -- A 29,000 square foot facility on a 10.2 acre site for manufacturing services relating to braze material and specialty alloys.

#### RESEARCH FACILITIES AND ADMINISTRATIVE OFFICES

CLEVELAND, OHIO -- A structure containing 110,000 square feet on an 18 acre site housing corporate and administrative offices, data processing and research and development facilities.

#### SERVICE AND DISTRIBUTION CENTERS

ELMHURST, ILLINOIS -- A 28,500 square foot leased facility principally for distribution of beryllium alloys.

FAIRFIELD, NEW JERSEY -- A 24,500 square foot leased facility principally for distribution of beryllium alloys.

FUKAYA, JAPAN -- A 35,500 square foot facility on 1.8 acres of land in Saitama Prefecture principally for distribution of beryllium alloys.

SINGAPORE -- A 4,500 square foot leased facility for the assembly and sale of precious metal hermetic sealing lids.

STUTTGART, WEST GERMANY -- A 24,750 square foot leased facility principally for distribution of beryllium alloys.

THEALE (READING), ENGLAND -- A 19,700 square foot leased facility principally for distribution of beryllium alloys.

TORRANCE, CALIFORNIA -- A 20,000 square foot leased facility principally for distribution of beryllium alloys.

WARREN, MICHIGAN -- A 34,500 square foot leased facility principally for distribution of beryllium alloys.

Production capacity, except in the case of Alloy Products, is believed to be adequate to fill the Company's backlog of orders and to meet the current level of demand. In May 1996, the Board of Directors approved a plan for a major expansion and upgrading of alloy casting and strip capabilities involving the investment of \$117 million at the Company's Elmore, Ohio facility. The goal of this investment is to increase strip production capacity, reduce production costs, improve quality, reduce delivery lead times, and improve working capital utilization. The plant became fully operational during 1999, but was unable to produce the desired output on a consistent and reliable basis. During the third quarter of 1999 the Company retained the services of approximately 50 outside engineers and skilled trades to focus on the alloy expansion equipment reliability issues. Except for one minor task, this project has been successfully completed. The Company anticipates that output should improve in 2000.

#### ITEM 3. LEGAL PROCEEDINGS

The Company is subject, from time to time, to a variety of civil and administrative proceedings arising out of its normal operations, including, without limitation, product liability claims, health, safety and environmental claims and employment-related actions. Among such proceedings are the cases described below.

#### **CBD CLAIMS**

There are claims pending in various state and federal courts against the Company by employees, former employees or surviving spouses and third party individuals alleging that they contracted chronic beryllium disease ("CBD") or related ailments as a result of exposure to beryllium. Plaintiffs in CBD cases seek recovery under theories of intentional tort and various other legal theories and seek compensatory and punitive damages, in many cases of an unspecified sum. Spouses, if any, claim loss of consortium.

During 1999, the number of CBD cases grew from 19 (involving 95 plaintiffs), as of December 31, 1998, to 37 cases (involving 119 plaintiffs), as of December 31, 1999. During 1999, an aggregate of two cases involving four plaintiffs were settled. The Company received favorable summary judgments in two cases, which have been appealed by the plaintiffs. No other CBD cases were dismissed in 1999.

As of December 31, 1999, the Company had an aggregate of 23 "employee cases" involving an aggregate of 23 employees, former employees or surviving spouses (in 14 of these cases, a spouse has also filed claims as part of their spouse's case). The other 14 cases involve third party individual plaintiffs, with 49 individuals (and 33 spouses who have filed claims as part of their spouse's case). Employee cases, in which plaintiffs have a high burden of proof, have historically involved relatively small losses to the Company. Third party plaintiffs (typically employees of our customers) face a lower burden of proof than do our employees, but these cases are generally covered by insurance.

From January 1, 2000 through March 23, 2000, eight additional CBD claims were filed against the Company. Of these, four claims (eight plaintiffs) were employee cases and three cases (ten plaintiffs) were filed by third party non-employee plaintiffs. In general, each asserts the same types of claims and seek the same damages under the same theories as discussed above for the year ended 1999.

In addition, on February 14, 2000, seven plaintiffs filed a purported class action lawsuit against the Company in the Court of Common Pleas, Cuyahoga County, Ohio, claiming that they were exposed to hazardous levels of airborne beryllium while working in the Company's Elmore facility as tradesmen employed by independent contractors. Plaintiffs purport to sue on behalf of a class of all workers who were members of unions comprising the Northwestern Ohio Building and Construction Trades Council and who worked in the Elmore plant from 1953 to December 31, 1999. They assert claims for negligence, strict liability, statutory

product liability, "ultrahazardous activities" and punitive damages, and seek establishment of a fund for medical surveillance and screening. The Company has filed a motion to dismiss the class action, which is pending.

The Company has settled the following previously reported lawsuits:

- State Compensation Fund v. Brush Wellman Inc. The Fund's declaratory judgment action was dismissed with prejudice following the Company's agreement not to seek defense or indemnity from the Fund for the claims made in some CBD cases. Because these claims relate to employees, for whom the burden of proof is high, the absence of defense or indemnity is not expected to have a material impact on the Company's liability for CBD claims.
- Wallace et al. v. Brush Wellman et al. This action was settled in 1998 and settlement funds paid in early 1999 ended this action. The settlement was fully insured.
- Thomas Markham et al. v. Brush Wellman Inc. et al. This action has been settled by the Company for \$25,000, and the release was executed on June 25, 1999.
- Corvino et ux. v. Cabot Corp. et al. The action was settled and dismissed during 1999. The settlement was fully insured.

#### **ENVIRONMENTAL CLAIMS**

The Company was identified as one of the Potentially Responsible Persons (the "PRPs") under the Comprehensive, Environmental, Response, Compensation and Liability Act ("CERCLA") at the Spectron Superfund Site in Elkton, Maryland. The Company reached a settlement with the U.S. Environmental Protection Agency (the "U.S. EPA") resolving the Company's liability under the Administrative Orders by Consent dated August 21, 1989 and October 1, 1991. The cost of compliance with the terms of these Orders is approximately \$8,480,000, of which the Company's proportionate share is \$20,461. On September 29, 1995, the U.S. EPA sent a "Special Notice for Negotiations for Remedial Investigation/Feasibility Study" to approximately 700 PRPs, including the Company. The U.S. EPA estimates that the final remedy for the Elkton Site will cost in the aggregate approximately \$45 million. In October 1995, the terms of several proposed de minimis settlement/buyout options designed to resolve all remaining liability with respect to the Elkton Site were circulated among a group of PRPs, including the Company. The Company indicated its willingness to pursue resolution of its liability through a de minimis settlement/buyout. No litigation has been initiated by the U.S. EPA with respect to this matter. In 1998, the Company received information from the group of PRPs negotiating the terms of the de minimis settlement with the U.S. EPA that the U.S. EPA is in the process of reviewing the allocation information underpinning the terms of the proposed settlement. Originally, the U.S. EPA expected to complete its review in a relatively short amount of time and consummate the settlement before the 1998 year end. The Company, however, has received no new information concerning when the U.S. EPA expects to complete its review and finalize the settlement.

The Company has settled the following previously reported environmental proceedings:

- In the previously reported case of Glidden Company et al. v. American Color and Chemical et al., the Company reached a settlement agreement with the plaintiffs in October 1999, in which the Company has agreed to pay \$70,000.
- In the previously reported case of United States of America v. Berks Associates Inc. et al. v. Aamco Transmissions et al., the Company participated in a court-ordered settlement proceeding, which resulted in a de minimis settlement payment by the Company of approximately \$15,000.
- In the previously reported claim by the U.S. EPA notifying Egbert Corp., a subsidiary of the Company ("Egbert"), that it was a PRP under CERCLA for the PCB Treatment Site in Kansas City, Kansas and Kansas City, Missouri, the Company has entered into a settlement, for approximately \$19,000, with the PRP group responsible for remedying this site, which has covenanted not to sue the Company and to indemnify the Company for certain covered matters.

- In the previously reported claim by the U.S. EPA notifying the Company that it was a PRP under CERCLA for the remediation of the Casmalia Resources Hazardous Waste Management Facility, the Company has entered into a settlement with the U.S. EPA for approximately \$80,000.

#### **OTHER CLAIMS**

The Company's Egbert subsidiary has been named as a defendant in a number of lawsuits alleging asbestos-induced illness, arising out of the conduct of a friction materials business whose operating assets Egbert sold in 1986. In each of the pending cases, Egbert is one of a large number of defendants named in the respective complaints. Egbert is a party to an agreement with the predecessor owner of its operating assets, Pneumo Abex Corporation (formerly Abex Corporation), and five insurers, regarding the handling of these cases. Under the agreement, the insurers share some expenses of defense, and Egbert, Pneumo Abex Corporation and the insurers share payment of settlements and/or judgments. In each of the pending cases, both expenses of defense and payment of settlements and/or judgments are subject to a limited, separate reimbursement agreement under which a successor owner of the business is obligated. A number of cases of this type have been disposed of to date, some by voluntary dismissal, others by summary judgment, one by jury verdict of no liability, and still others upon payment of nominal amounts in settlement. There are at present 12 cases pending.

#### ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

None.

#### ITEM 4A. EXECUTIVE OFFICERS OF THE REGISTRANT

The following table provides information as to the executive officers of the Company.

NAME	AGE	POSITIONS AND OFFICES
Gordon D. Harnett	57	Chairman of the Board, President, Chief Executive Officer and Director
Michael D. Anderson	48	Vice President, Beryllium Products
Brian J. Derry	54	Vice President, Operations
Stephen Freeman	53	President, Brush Wellman International
Jordan P. Frazier	42	President, Electronic Products
John D. Grampa	52	Vice President Finance and Chief Financial Officer
Michael C. Hasychak	46	Vice President, Treasurer and Secretary
Alfonso T. Lubrano	50	President, Technical Materials, Inc.
John J. Paschall	62	President, Williams Advanced Materials Inc.
Andrew J. Sandor	60	Vice President, Alloy Technology
William R. Seelbach	51	President, Alloy Products
Daniel A. Skoch	50	Vice President, Administration and Human Resources

MR. HARNETT was elected Chairman of the Board, President, Chief Executive Officer and Director of the Company effective January, 1991. He had served as a Senior Vice President of The B.F. Goodrich Company from November, 1988.

MR. ANDERSON was elected Vice President, Beryllium Products effective March, 1996. He had served as Director of Sales and Marketing -- Beryllium Products since November, 1994, Director of Marketing -- Ceramics since February, 1994 and Director of Marketing since April, 1989.

MR. DERRY was elected Vice President, Operations in May, 1997. Prior to that time, he served as Director of Global Manufacturing for Ethyl Corporation.

MR. FRAZIER was elected President, Electronic Products in November, 1999. He had served as General Manager, Ceramic Products since December, 1997. He had served as Director, Ceramic Operations since September, 1996. He had served as Director of Sales and Marketing -- Ceramic Products since February, 1996. Prior to that time, he had served as Plant Manager of the Tucson manufacturing facility from 1992.

MR. FREEMAN was elected President, Brush Wellman International in November, 1999. He had served as Vice President, Alloy Products since February, 1995. He had served as Vice President of Sales and Marketing since August, 1993. He had served as Vice President of Sales and Marketing -- Alloy Products since July, 1992. Prior to that time, he had served as Management Consultant for Adastra, Inc.

MR. GRAMPA was elected Vice President Finance and Chief Financial Officer in November, 1999. He had served as Vice President Finance since October, 1998. He had served as Vice President, Finance for the worldwide Materials Business of Avery Dennison Corporation since March, 1994 and prior to that time he held other various financial positions at Avery Dennison Corporation from 1984.

MR. HASYCHAK was elected Vice President, Treasurer and Secretary in November, 1999. He had served as Treasurer and Secretary since May, 1994. Prior to that time, he served as Treasurer and Assistant Secretary from 1990 and as Assistant Treasurer from 1988.

MR. LUBRANO was elected President, Technical Materials, Inc. effective April, 1995 and Vice President and General Manager effective March, 1992. Prior to that time, he served as Vice President and Business Director of Engelhard Corporation from 1987.

MR. PASCHALL was elected President, Williams Advanced Materials Inc. effective November, 1991. He had served as Vice President, Operations -- Williams Advanced Materials Inc. since April, 1989.

MR. SANDOR was elected Vice President, Alloy Technology effective March, 1996. He had served as Vice President, Operations since October, 1991. He had served as Senior Vice President since September, 1989.

MR. SEELBACH was elected President, Alloy Products in June, 1998. Prior to that time, he had been Chairman and CEO of Inverness Partners since October, 1987. Prior to Inverness Partners, he was a partner with McKinsey & Company.

MR. SKOCH was elected Vice President, Administration and Human Resources effective March, 1996. He had served as Vice President, Human Resources since July, 1991. Prior to that time, he was Corporate Director -- Personnel.

#### PART II

#### ITEM 5. MARKET FOR THE REGISTRANT'S COMMON STOCK AND RELATED STOCKHOLDER MATTERS

The Company's Common Stock is traded on the New York Stock Exchange. As of March 6, 2000 there were 2,299 shareholders of record. Information as to stock price and dividends declared is set forth in Note O to the Consolidated Financial Statements. The Company's ability to pay dividends is generally unrestricted, except that it is obligated to maintain a specified level of tangible net worth pursuant to an existing credit facility and a lease agreement.

#### ITEM 6. SELECTED FINANCIAL DATA

Selected Financial Data is set forth on page F-27.

#### ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

#### RESULTS OF OPERATIONS

	1999	1998	1997
	(MILLIONS,	EXCEPT FOR	SHARE DATA)
Sales	\$455.7	\$409.9	\$433.8
Operating Profit (loss)	10.6	(10.3)	36.0
Diluted E.P.S	\$ 0.40	\$(0.44)	\$ 1.56

Net sales in 1999 of \$455.7 million were a record high and surpassed 1998 sales of \$409.9 million by 11%. The resulting earnings per share of \$0.40 compare to a loss of \$0.44 per share in 1998. Earnings in 1998 were reduced by a \$22.6 million pre-tax special charge.

The Company has two business groups -- the Metal Systems Group and the Microelectronics Group (MEG). Sales from both groups were higher in 1999 than last year after they both posted declines in 1998. While profits from the Metal Systems Group decreased again in 1999, the MEG recorded a strong increase in their profitability in the current year.

#### METAL SYSTEMS GROUP

	1999	1998	1997
		(MILLIONS)	
Sales	\$306.1	\$295.7	\$302.4
Operating Profit	16.3	27.9	51.0

The Metal Systems Group consists of Alloy Products, Beryllium Products and Engineered Material Systems (Technical Materials, Inc.). Metal Systems products compete against other beryllium and non-beryllium alloys in a variety of applications where a high degree of reliability and performance are required. Depending upon the chemistry, form and application, the Company's engineered materials provide superior electrical or heat conductivity, wear resistance, formability, high strength, and high hardness characteristics. Sales from the Metal Systems Group of \$306.1 million were 4% higher in 1999 than 1998, a slight recovery after the 2% sales decline in the prior year.

The following chart highlights business unit sales as a percent of the Metal Systems Group business segment:

	1999	1998	1997
	( PERCENT	OF SEGM	ENT BY
	BUSI	NESS UNI	T)
Alloy Products	71.9%	73.5%	74.7%
Engineered Material Systems (Technical Materials, Inc.)	20.5%	17.0%	17.0%
Bervllium Products	7.6%	9.5%	8.3%

#### **Alloy Products**

Alloy Strip products, predominantly copper beryllium alloys, represent the largest product family within the Metal Systems Group and are manufactured at the Company's Elmore, Ohio and Reading, Pennsylvania facilities. Demand for strip products from the telecommunications, automotive, and computer markets was quite strong during 1999, rebounding from a general market softness and the General Motors strike that caused sales in 1998 to be lower than 1997. The strip sales value increased in 1999 from 1998, but still was behind the 1997 level.

Production capacity constraints limited the Company's ability to satisfy the total demand for strip products in 1999 and 1998. With output unable to keep pace with demand, total alloy strip pounds sold were just slightly higher in 1999 than in 1998, with most of the increased volume in lower priced, lower beryllium containing alloys. Pounds shipped in 1999 returned to the level shipped in 1997, but again with a shift to the lower priced alloys. The Company believes that the capacity constraints have resulted in lost market share.

Beginning in 1996, the Company embarked upon a \$117 million capital project in Elmore to increase output, improve quality and lower the manufacturing costs of alloy products. The project, known as the Alloy Expansion Project, or AEP, consisted of two phases. The first was a new cast shop that was designed to provide high quality cast billets for alloy strip and bulk product production. The new cast shop started initial operation in the fourth quarter of 1997. Its lower than expected yields and the resulting negative impact on material flow and costs adversely affected sales, margins, and inventory utilization in 1998. The second phase of the AEP was a new strip mill that replaced portions of the existing mill in the Elmore facility. Selected pieces of equipment from the new mill were installed in late 1998, but it was not until the second quarter 1999 that all of the equipment was constructed and installed. In 1999, the strip mill equipment was unable to produce the desired output on a consistent and reliable basis and strip manufacturing costs were higher than in 1998 due to additional manning and lower yields. In order to expedite the start-up of the new mill and improve the mill's up time, the Company secured the services of additional outside resources and re-directed internal resources in the third and fourth quarter of 1999. The majority of this concentrated effort was completed by the end of 1999. As a result, output from the mill increased slightly and casting and over-all yields showed some improvements, although yield rates still lagged historical levels. The cost of this effort combined with yield and inefficiency issues throughout the year served to reduce margins in 1999. The Company anticipates that output from the mill should improve in 2000, and approximately \$8 million of costs incurred in 1999 should not repeat in 2000.

Alloy Bulk Products are also manufactured at Elmore in rod, bar, tube, plate and a variety of other forms. Revenues from bulk products declined in 1999 approximately 9% from 1998 and were essentially equal to 1997. Demand from the plastic mold tooling market was good throughout the three years presented while orders for undersea communication applications, which had been delayed early in 1999, improved significantly in the latter part of 1999. Two key markets for bulk products, aerospace and oil and gas, were very weak in 1999, compared to the prior years, and were the main cause for the decline in the current year's sales. To augment its product offerings, the Company constructed a facility in Lorain, Ohio in 1997 to produce non-beryllium containing copper based bulk alloys. Strategically, these products will serve a market and customer base similar to the traditional bulk alloy products. Shipments from the Lorain facility remained at levels behind plan and unchanged in 1999 from 1998 after a very modest start in 1997. While the growth and

profitability of these sales have been disappointing, the Company remains committed to fully commercializing these products in the future.

#### **Engineered Material Systems**

Sales of Engineered Material Systems, which are manufactured by Technical Materials, Inc. (TMI), a wholly-owned subsidiary of the Company, increased by 25% in 1999 over 1998 after a slight decline in 1998 from 1997 due to the General Motors strike and weakness in the semi-conductor market. Over the last seven years, sales of these products have now averaged an annual double-digit growth rate. Engineered Material Systems are combinations of precious and non-precious metal continuous precision strip products. The majority of these products do not contain beryllium, but serve many of the same markets as do copper beryllium alloy strip products. The sales improvement in 1999 was driven by growth in new and existing applications in all major markets as well as by the addition of new TMI plating technologies. TMI continues to expand its investments to service the increasing demand from its customer base.

#### **Beryllium Products**

Beryllium Products sales declined in 1999 from 1998 after posting gains in 1998 from the previous year. Defense applications, while significantly lower than the cold war levels of the 1970's and 1980's, remain an important market for beryllium. In 1999, sales for defense applications decreased from the levels in the previous several years as various programs were delayed or cancelled due to government budget revisions following the U.S. military action in Kosovo. Sales of x-ray windows and other beryllium products from the Fremont, California facility were strong in 1999, but not sufficient to compensate for the drop in defense applications.

#### **Metal Systems Group Margin and Profit**

Margins on Metal Systems sales decreased by \$9.6 million in 1999 from 1998 after declining \$22.7 million in 1998 from 1997. Higher sales volumes in 1999, mainly Engineered Material Systems, as compared to 1998, generated an additional \$3.1 million of margin. However, higher direct manufacturing costs, including the AEP start-up costs, and other product mix issues, reduced the gross margin in 1999 by \$8.1 million from 1998. Lease payments for the AEP equipment commenced in 1999 and added \$4.0 million to the overhead cost structure. Depreciation expense at TMI increased by \$0.2 million in 1999 as a result of recent capital investments. Sales volumes were lower in 1998 versus 1997, particularly Alloy Products, resulting in a \$5.7 million reduction in 1998 margins. Margins in 1998 were further reduced by additional direct manufacturing costs, primarily from the new cast shop in Elmore, and product mix totaling \$5.6 million. The Lorain facility began operations late in 1997 and operated at a loss in 1998, reducing 1998's margins by \$2.7 million as compared to 1997. Other overhead manufacturing costs increased by \$8.7 million in 1998 over 1997. The majority of this increase was at the Elmore facility and included \$2.0 million for lease payments on the AEP building and \$1.8 million in additional depreciation expense on Alloy equipment. Other overhead support costs, including wages and utilities, increased at Elmore as well, while manufacturing overhead costs at TMI increased by \$0.5 million, the majority of which was depreciation.

Metal Systems' operating profit was \$16.3 million in 1999, a decline from a profit of \$27.9 million in 1998 and \$51.0 million in 1997, primarily for the reasons discussed in the above paragraph.

#### MICROELECTRONICS GROUP (MEG)

	1999	1998	1997
		(MILLIONS)	
Sales	\$140.6	\$106.3	\$124.4
Operating Profit	11.4	2.1	2.9

The MEG provides a variety of materials for demanding electronic applications. The group consists of Williams Advanced Materials Inc. (WAM), a wholly owned subsidiary of the Company and Electronic Products. Electronic Products was formerly known as Ceramics as the name was changed to reflect the Company's continued expansion into new materials. MEG sales were \$140.6 million in 1999, an improvement of 32% over 1998 sales of \$106.3 million.

The following chart highlights business unit sales as a percent of the Microelectronics Group business segment:

	1999	1998	1997
	( PERCENT	OF SEGMI	ENT BY
	BUSI	NESS UNI	Γ)
Williams Advanced Materials Inc	77.2%	73.7%	74.5%
Electronic Products (formerly Ceramics)	22.8%	26.3%	25.5%

#### Williams Advanced Materials Inc.

WAM manufactures and sells precious and non-precious metal physical vapor deposition (PVD) targets, specialty alloys, and other precious metal products. WAM's products serve the microelectronics, optical media, data storage, performance film, and wear/decorative film markets. Increased demand and development of new applications for these markets was responsible for a significant portion of the MEG's revenue growth in 1999. In the optical media market, WAM's targets are used to deposit the gold or silver reflective layer on recordable CDs and digital video discs. WAM completed the expansion of its manufacturing operations begun in 1998 that was designed to increase and support its specialty alloy product offerings. WAM's acquisition of the assets of Pure Tech in early July 1998 also provided additional revenue growth in 1999 and 1998. Pure Tech has been a major contributor to the MEG's higher profits over the last eighteen months.

The decline in MEG sales in 1998 from 1997 was primarily a result of a planned substitution of silver for gold in select PVD applications. Under this program, the customer receives the benefits of a high quality product but at a significantly lower cost as the cost of the precious metal content is a straight pass-through to the customer. While the reported revenue from PVD was lower in 1998 than 1997, the actual number of targets sold increased, as did the resulting value added (sales less metal cost). This substitution trend continued in 1999, but at a slower pace. The number of targets sold and the value added earned were higher again in 1999 than 1998.

#### **Electronic Products**

Electronic Products manufactures beryllia ceramic, electronic packages, thick film circuits and powder metallurgy products that are used in a variety of telecommunication, automotive, and electronic applications. Good thermal conductivity is a key characteristic required for many of these applications. Sales of these products also increased in 1999 over 1998, although the growth was not as significant as the products sold by WAM. The majority of the growth in 1999 was in beryllia ceramics as sales of these products in 1998 were also negatively affected by the softness in the telecommunications market and the General Motors strike. A competitor went out of business in 1999, allowing the Company the opportunity to capture additional market share for its beryllia ceramic products. Improved manufacturing processes implemented in late 1998 and early 1999 resulted in higher yields and lower costs at the Company's Newburyport, MA. facility and helped support a growth in market opportunities for various direct bond copper products. Powder metallurgy products represent a fairly recent expansion of the MEG's product offerings and the Company has constructed a new facility in Tucson, AZ. to produce these materials. Thick film circuits are produced at Circuits Processing Technologies, Inc., a wholly-owned subsidiary of the Company in Oceanside, CA. These sales have remained flat primarily due to delays in actual government spending on approved contracts. The MEG continues to pursue non-government dependent applications for its circuit technology.

#### **Microelectronics Group Margin and Profit**

Margins on MEG sales increased by \$11.7 million in 1999 over 1998. Higher sales volumes, mainly WAM products, contributed \$8.2 million to this increase. Cost improvements from Electronic Products operations accounted for the majority of the balance of the change. The 1998 gross margin was \$0.3 million better than 1997. The higher sales volume from WAM products provided an additional \$3.2 million of margin in 1998, while the lower Electronic Product sales volumes caused a \$1.0 million decline in margins. The net

benefit of the above was reduced by inefficiency issues at the Newburyport facility. WAM'S manufacturing overhead costs also increased \$1.0 million in 1998 over 1997 due to the expansion of operations.

The MEG's operating profit of \$11.4 million in 1999 represents a significant improvement over the \$2.1 million earned in 1998 and the \$2.9 million earned in 1997, primarily because of the reasons discussed in the above paragraph, offset by a full year of expenses by Pure Tech in 1999 compared to only six months in 1998 and none in 1997.

#### SPECIAL CHARGE

In 1998, the Company recorded a pre-tax special charge of \$22.6 million (see Note I to the Consolidated Financial Statements). The charge included a write-down of various fixed assets and related intangibles to their estimated fair values in accordance with SFAS No. 121. The Company's long-term strategic plans anticipated only modest growth from the related operations and the projected cash flows were not sufficient to support the carrying value of the assets. The written-down assets were not taken out of service. Additional charges were taken for assets that had become obsolete as well as for an increase to the environmental remediation reserve. Of the \$22.6 million charge, \$5.6 million was recorded against Cost of sales and \$17.0 million against Other-net. The after tax impact of the charge was \$16.5 million. While the charge included the write-down of assets within both the Metal Systems Group and the MEG, the charge was not allocated back to either group as management evaluates their performance exclusive of the charge.

#### INTERNATIONAL SALES AND OPERATIONS

	1999	1998	1997
		(MILLIONS)	
From International Operations	\$ 87.2	\$ 82.0	\$ 88.7
Exports from U.S. Operations	50.3	47.1	53.7
Total International Sales	\$137.5	\$129.1	\$142.4
Percent of Total Sales	30%	31%	33%

The international sales figures in the above table are included in the Metal Systems and MEG sales totals previously discussed. International operations consist of distribution centers in Germany, England, Japan, and Singapore, which are managed by the Metal Systems Group, and a precious metal finishing facility in Singapore, which is part of the MEG. To augment these operations, the Company has strategically deployed a network of independent distributors and agents throughout the world. International markets served are a reflection of the markets served in the U.S. The distribution centers have competitors based in that country in addition to other international competitors. Products sold by the distribution centers typically are priced in their local currency, which is generally perceived to be a benefit to the customer. On average, the dollar was stronger in 1998 than 1997 and weaker in 1999 than 1998; therefore, the currency translation impact on sales was favorable in 1999 and unfavorable in 1998. Sales of Metal Systems products, particularly alloy strip and bulk, into Asia declined in the second quarter 1998 due to general economic conditions. After remaining flat at these low levels for several quarters, Asian sales started to grow once again and 1999 sales in this region were higher than 1998.

In addition to sales from the international facilities, the Company exports products directly to unaffiliated customers from its U.S. operations. The majority of these sales are to Western Europe, Canada, Mexico, and South Asia. Direct exports are usually denominated in U.S. dollars. While total international sales, as a percent of consolidated sales, declined slightly in 1998 and again in 1999, the Company believes that the international markets offer excellent long-term growth opportunities.

#### CONSOLIDATED

		1998	
	(DOLLA	RS IN MILL	IONS)
Sales	\$455.7	\$409.9	\$433.8
Operating Profit/(loss)	10.6	(10.3)	36.0
Net Income/(loss)	\$ 6.4	\$ (7.1)	\$ 25.6
As a Percent of Sales			
Gross Profit	20.2%	20.7%	25.2%
SA&G Expense	15.5%	15.7%	15.0%
R&D Expense	1.9%	2.1%	1.8%

The Company has other operations and costs that are not part of the Metal Systems Group or the MEG, including the beryllium mine and extraction facility and the corporate office. The consolidated sales from all operations were \$455.7 million in 1999, \$409.9 million in 1998 and \$433.8 million in 1997. Gross margin from all operations and including the special charge was 20.2% of sales in 1999, 20.7% in 1998 and 25.2% in 1997. In addition to the factors previously cited, the overall mix of products has had a negative impact on margins, particularly in 1999. Metal Systems products typically generate higher variable margins (sales less materials and direct conversion costs) than MEG products and the majority of the revenue growth in 1999 was in MEG products.

#### **EXPENSES**

Selling, administrative, and general expenses (SA&G) were \$70.6 million in 1999, or 15.5% of sales, compared to \$64.6 million in 1998, or 15.7% of sales, and \$65.3 million in 1997, or 15.0% of sales. Selling and marketing costs were higher in 1999 than 1998 in order to support the current growth in sales and as a result of the Company's continued investment in its market development activity. The completion of various software implementation projects resulted in additional amortization expense in 1999 compared to the prior years. In addition, there was a full year of expenses from Pure Tech in 1999 compared to only six months in 1998 and none in 1997. Administrative costs for environmental, health and safety, and medical costs were also higher in 1999 than previous years as the Company expanded its efforts even further to research the causes and prevention of chronic beryllium disease. SA&G expenses were lower in 1998 than in 1997. Non-recurring planning and strategic development work for the Lorain facility was incurred in the first part of 1997. Payments under various management compensation plans were higher in 1997 than in the subsequent two years due to higher levels of profitability.

Research and Development (R&D) expenses were \$8.5 million in 1999, \$8.7 million in 1998, and \$7.7 million in 1997. As a percent of sales, R&D expenses were 1.9% in 1999, 2.1% in 1998, and 1.8% in 1997. There were no major changes in the strategic thrusts for R&D in 1999, although for a portion of the year some R&D resources were temporarily assigned to assist with the AEP. The 1999 expense was affected by a more focused scope on a new product development project and a minor reimbursement of expenses under an agreement with a customer. The increase in expenses in 1998 over 1997 was due to additional support for the product development work at the Lorain facility and for the development of improved casting techniques and processes. The majority of the R&D effort supports the Metal Systems Group. In 1998, R&D efforts within the MEG lead to the DBC process and cost improvements.

Other-net expense was \$2.3 million in 1999 versus \$21.8 million in 1998 and \$0.3 million in 1997. Other-net includes foreign currency exchange gains/losses, precious metal consignment fees, bad debt expense, cash discounts, amortization of goodwill and other intangibles, licensing fees, charges associated with vacant properties owned by the Company and other non-operating items. The 1998 expense included \$17.0 million of the special charge. In addition, foreign currency exchange gains/(losses) were \$2.2 million in 1999, as compared to \$1.8 million in 1998, and precious metal consignment fees totaled \$3.5 million in 1999 compared to \$1.8 million in 1998. The increase in 1999 precious metal fees was due to higher consigned inventory levels, average metal prices and available rates. In addition to the special charge of \$17.0 million in

1998, foreign currency losses in 1998 totaled \$1.8 million compared to foreign currency gains of \$2.3 million in 1997, and the precious metal fee in 1998 was \$.7 million lower than 1997.

As explained in Note L to the Consolidated Financial Statements, the Company revised the expected rate of return on asset assumption used to calculate the 1999 pension expense in accordance with SFAS No. 87, "Employers Accounting for Pensions." The rate was increased to 10.0% from 9.0% to more accurately reflect the expected performance of the pension plans' assets. The change resulted in a favorable impact of approximately \$0.9 million that was booked against Cost of sales, SA&G expenses and R&D expenses in 1999. It is anticipated that this change will result in a lower pension expense in 2000 than had the change not been made.

#### EARNINGS, INTEREST, AND TAXES

Operating profit was \$10.6 million in 1999. In 1998, the operating loss was \$10.3 million including the \$22.6 million special charge while the profit in 1997 was \$36.0 million.

Interest expense was \$4.2 million in 1999, an increase of \$3.0 million over an expense of \$1.2 million in 1998. In 1997, interest expense was only \$0.6 million. These figures are net of interest capitalized in association with spending on capital projects. Capital expenditures were significantly lower in 1999 than the prior two years and therefore less interest was capitalized. Actual interest incurred was \$4.3 million in 1999, \$2.8 million in 1998, and \$2.4 million in 1997. The average level of debt outstanding was higher in 1998 than 1997 and it was even higher in 1999. The average borrowing rate was also higher in 1999 after showing a slight decrease in 1998.

An income tax benefit was applied at a rate of 0.8% of income before income taxes in 1999. The rate was affected by research and experimentation credits, depletion credits, benefits from foreign operations, and lower profits. See Note J to the Consolidated Financial Statements for a reconciliation of the effective and statutory rates. In 1998, a tax benefit rate of 38.3% was applied against the loss before income taxes while a tax expense of 27.8% of income before income taxes was recorded in 1997.

Net income was \$6.4 million in 1999 compared to a net loss of \$7.1 million in 1998 and net income of \$25.6 million in 1997. Diluted earnings/ (loss) per share were \$0.40 in 1999, (\$0.44) in 1998 and \$1.56 in 1997.

#### **LEGAL PROCEEDINGS**

The Company is a defendant in proceedings in various state and federal courts by plaintiffs alleging that they have contracted chronic beryllium disease ("CBD") or related ailments as a result of exposure to beryllium. Plaintiffs in CBD cases seek recovery under theories of intentional tort and various other legal theories and seek compensatory and punitive damages, in many cases of an unspecified sum. Spouses, if any, claim loss of consortium.

The following table summarizes the historic trends in the CBD cases:

	DECEMBER 31,		
	1999	1998	1997
Total cases pending	37	 19	28
Total plaintiffs	119	95	133
Number of claims (plaintiffs) filed during period ended	20(28)	2(4)	9(48)
Number of claims (plaintiffs) settled during period ended Aggregate settlements paid during period ended (dollars in	2(4)	9(36)	3 (5)
thousands)	\$ 183	\$1,193	\$1,389
Number of claims (plaintiffs) dismissed	0(0)	2(6)	4(8)

From January 1, 2000 through March 23, 2000, eight additional CBD claims were filed against the Company.

In addition, on February 14, 2000, seven plaintiffs filed a purported class action lawsuit against the Company in the Court of Common Pleas, Cuyahoga County, Ohio, claiming that they were exposed to hazardous levels of airborne beryllium while working in the Company's Elmore facility as tradesmen employed by independent contractors. Plaintiffs purport to sue on behalf of a class of all workers who were members of unions comprising the Northwestern Ohio Building and Construction Trades Council and who worked in the Elmore plant from 1953 to December 31, 1999. They assert claims for negligence, strict liability, statutory product liability, "ultrahazardous activities" and punitive damages, and seek establishment of a fund for medical surveillance and screening. The Company has filed a motion to dismiss the class action, which is pending.

Additional CBD claims may arise. Management believes the Company has substantial defenses in these cases and intends to contest the suits vigorously. Employee cases, in which plaintiffs have a high burden of proof, have historically involved relatively small losses to the Company. Third party plaintiffs (typically employees of our customers) face a lower burden of proof than do our employees, but these cases are generally covered by insurance.

Although it is not possible to predict the outcome of the litigation pending against the Company and its subsidiaries, the Company provides for costs related to these matters when a loss is probable and the amount is reasonably estimable. Litigation is subject to many uncertainties, and it is possible that some of these actions could be decided unfavorable in amounts exceeding the Company's reserves. An unfavorable outcome or settlement of a pending CBD case or additional adverse media coverage could encourage the commencement of additional similar litigation. The Company is unable to estimate its potential exposure to unasserted claims.

While the Company is unable to predict the outcome of the current or future CBD proceedings, based on currently known facts and assuming collectibility of insurance, the Company does not believe that resolution of these proceedings will have a material adverse effect on the financial condition or cash flow of the Company. However, the Company's results of operations could be materially affected by unfavorable results in one or more of these cases. (See Item 3 -- "Legal Proceedings").

#### FINANCIAL POSITION

#### WORKING CAPITAL

Net cash from operations was \$24.5 million in 1999, an improvement of \$5.0 million from the net cash generated by operations in 1998. Net working capital increased in 1999 in part to support the higher level of business. Accounts receivable increased by \$17.6 million during 1999. While the majority of this increase is due to higher sales activity, particularly in the fourth quarter 1999 as compared to the fourth quarter 1998, the average collection period has increased. However, the actual receivables either turned over for collection or written off as totally uncollectible remained at very low levels. Cash balances were \$0.1 million as of December 31, 1999 compared to \$1.9 million at December 31, 1998.

Inventories grew \$7.5 million in 1999 from 1998 after growing \$12.4 million in 1998 from 1997. A portion of the growth is in work-in-process inventories at Elmore due to the AEP production and associated material flow issues. While work-in-process inventories were higher, the production constraints have prevented the material from being converted into finished goods as rapidly as the market required. In addition, the Company attempts to recycle as much of its beryllium-containing alloys as feasible. The low yield rates in both years resulted in higher levels of scrap. This scrap is maintained in inventory at the appropriate value and is available to be or already has been remelted and reprocessed. Inventories also increased in 1999 to support the higher MEG sales. In 1998, the start-up of the Lorain manufacturing operations and the acquisition of Pure Tech also contributed to the inventory build.

#### DEPRECIATION AND AMORTIZATION

Depreciation, depletion, and amortization was \$20.8 million in 1999 compared to \$21.5 million in 1998. In 1999, the additional depreciation and amortization on recent capital additions was offset by lower expenses as a result of various assets being written down as part of the 1998 special charge. Amortization of deferred mine development costs were \$6.3 million in 1999 and \$3.1 million in 1998. The Company's mining operations were devoted to constructing two new pits rather than pulling ore out of an existing pit in early 1998, thereby reducing the 1998 amortization. The 1999 amortization is also higher due to the higher cost of the new pits. The Company amortizes deferred mine development costs based upon the units of production method as ore is extracted from the open pits.

#### CAPITAL EXPENDITURES

Capital expenditures for property, plant, and equipment and mine development were \$17.0 million in 1999 compared to \$37.2 million in 1998. The spending level was lower in 1999 than in recent years as the construction phase of several major projects reached completion. Capital expenditures for Metal Systems were \$11.4 million in 1999. Major projects included upgrades to existing alloy strip manufacturing equipment at the Elmore and Reading facilities and an improved ventilation system in the beryllium metal manufacturing facility in Elmore. Capital expenditures for the MEG were \$3.4 million in 1999 and included the payments to complete the new precious metal specialty alloy products facility and the new powder metallurgy facility.

The assets of Pure Tech Inc. were acquired for \$12.4 million in cash at the end of the second quarter 1998. The acquisition was accounted for as a purchase.

#### **YEAR 2000**

The Company also completed the initial phase of several large information system implementation projects in both Metal Systems and the MEG in 1999. One result of the implementation of these new systems is that they replaced numerous legacy computer systems that may not have been Year 2000 compliant. The Company also upgraded many of the remaining legacy systems with one of the benefits of the upgrades being bringing those systems into Year 2000 compliance as well. During 1999 and 1998, the Company approached the required remediation of any Year 2000 issues with its computer chip based equipment through a five step approach of inventory, investigation, remediation, testing, and implementation. Outside consultants were retained to assist in this effort. The Company also worked with third parties, including customers and vendors, to assess the potential risks and to develop contingency plans as warranted. The incremental expense for the Year 2000 compliance activity was \$0.5 million in 1999 and \$1.0 million in 1998. As of early March 2000, the Company had not experienced any Year 2000 compliance issues that significantly impacted its operations. While considered unlikely and despite all efforts thus far, the Company could still be negatively affected by unanticipated problems that may occur in the Company's computer systems or operating equipment or with non-compliant third parties. The Company will continue to monitor its business processes through-out 2000 and will address any compliance issues accordingly.

#### DEBT

Total balance sheet debt stood at \$77.0 million at December 31, 1999, a decrease of \$0.7 million from December 31, 1998. The average debt level for the entire year was higher in 1999 than 1998 as debt increased by \$30.9 million during 1998. Short-term debt declined by \$10.9 million during 1999 while long-term debt increased by \$10.2 million. Short-term debt includes \$21.2 million denominated in foreign currencies, \$6.9 million denominated in gold, and \$5.8 million of the current portion of long-term debt. Available unused short-term credit lines total \$17.9 million as of December 31,1999, a decline of \$2.1 million from December 31, 1998. The Company also has a \$55.0 million revolving credit agreement with five banks and a \$75.0 million private placement agreement. Unused borrowings under these two long-term facilities totaled \$94.0 million as of December 31, 1999. In January and September, 1999, the Company amended certain portions of its various debt agreements, including a covenant that restricts the level of outstanding debt to a multiple of earnings before interest, taxes, depreciation and amortization (funded debt to EBITDA ratio).

The AEP is financed in part by two operating leases totaling \$79.7 million. Payments under the facility lease began in December 1997. Payments under the equipment lease, which are graduated to increase over time, began in early 1999. See Note F to the Consolidated Financial Statements for further leasing details.

#### **COMMON STOCK**

Dividends paid were \$0.12 per outstanding share for each quarter of 1999 and 1998. There were no purchases of common stock in 1999 while in 1998 the Company purchased 250,000 of its shares at a cost of \$5.3 million.

#### **OTHER**

Funds from operations and the available borrowing capacity are believed to be adequate to support operating requirements, capital expenditures, remediation projects, and dividends. Excess cash, if any, is invested in money market or other high quality investments.

#### **ORE RESERVES**

The Company's reserves of beryllium-bearing bertrandite ore are located in Juab County, Utah. An ongoing drilling program has generally added to proven reserves. Proven reserves are the measured quantities of ore commercially recoverable through the open pit method. Probable reserves are the estimated quantities of ore known to exist, principally at greater depths, but prospects for commercial recovery are indeterminable. Ore dilution that occurs during mining approximates 7%. About 87% of beryllium in ore is recovered in the extraction process. The Company augments its proven reserves of bertrandite ore through the purchase of imported beryl ore (approximately 4% beryllium) which is also processed at the Utah extraction plant.

Beginning in 1998, updated computer models are being used to estimate ore reserves which are subject to economic and physical evaluation. Development drilling has affected the total ore reserves to some degree. The requirement that reserves pass an economic test causes open-pit mineable ore to be found in both proven and probable geologic settings. Although both the proven ore reserves and the open-pit mining depths have increased, the probable reserves have substantially decreased. Based upon average production levels in recent years, proven reserves would last seventy years or more. Ore reserves classified as possible are excluded from the following table.

	1999	1998	1997	1996	1995
Proven bertrandite ore reserves at year end					
(thousands of dry tons)	7,769	7,747	6,924	6,763	6,927
Grade % beryllium	0.265%	0.259%	0.249%	0.249%	0.249%
Probable bertrandite ore reserves at year end					
(thousands of dry tons)	3,081	3,535	6,750	7,432	7,346
Grade % beryllium	0.215%	0.210%	0.277%	0.281%	0.281%
Bertrandite ore processed (thousands of dry tons,					
diluted)	93	113	110	97	96
Grade % beryllium, diluted	0.240%	0.234%	0.229%	0.236%	0.232%

#### INFLATION AND CHANGING PRICES

The prices of certain major raw materials, including copper, nickel, gold, silver, and other precious metals purchased by the Company fluctuate during a given year. Such changes in costs are generally reflected in selling price adjustments. The prices of labor and other factors of production generally increase with inflation. Additions to capacity, while more expensive over time, usually result in greater productivity or improved yields. However, market factors, alternative materials, and competitive pricing affect the Company's ability to offset wage and benefit increases. The Company uses the last-in, first-out (LIFO) inventory valuation method domestically to more closely match current costs with revenues.

#### ENVIRONMENTAL MATTERS

As indicated in Note M to the Consolidated Financial Statements, the Company maintains an active program of environmental compliance. For projects involving remediation, estimates of the probable costs are made and the Company has reserved \$8.3 million at December 31, 1999 (\$7.9 million at December 31, 1998). This reserve covers existing and currently foreseen projects.

#### ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Consistent with the prior year, the Company is exposed to commodity price, interest rate, and foreign exchange rate differences. The Company attempts to minimize the effects of these exposures through a combination of natural hedges and the use of derivatives. See Note G to the Consolidated Financial Statements.

The Company uses gold and other precious metals in manufacturing various MEG and Metal Systems products. While the mix of the different precious metals may have changed slightly from last year, the methods used to hedge the exposure have not. To minimize exposure to market price changes, precious metals are maintained on a consigned inventory basis. The metal is purchased out of consignment when it is ready to ship to a customer as a finished product. The Company's purchase price forms the basis for the price charged to the customer for the precious metal content and, therefore, the current cost is matched to the price. The Company does maintain a certain level of gold in its own inventory, but this is typically balanced out by having a loan denominated in gold for the same number of ounces. Any change in the market price of gold, either higher or lower, will result in an equal change in the book value of the asset and liability.

The Company is charged a consignment fee by the financial institutions that actually own the gold. This fee, along with the interest charged on the gold loan, is partially a function of the market price of gold. Because of market forces and competition, the fee, but not the interest on the loan, can be charged to customers on a case by case basis. Should the market price of precious metals used by the Company increase by 15% from the levels on December 31, 1999, the additional pre-tax cost to the Company on an annual basis would be approximately \$0.7 million. This calculation assumes no changes in the quantity of inventory or the underlying fee and interest rates and that none of the additional fee is charged to customers.

The Company also uses base metals, primarily copper, in its production processes. Fluctuations in the market price of copper are passed on in the form of price adders (or as price reductions) to customers for the majority of the copper sales volumes. However, when the Company cannot pass through the price of copper, margins can be reduced by increases in the market price of copper. To hedge this exposure, the Company enters into copper swaps with financial institutions that exchange a variable price of copper for a fixed price. By so doing, the difference between the Company's purchase price and selling price of copper will be a known, fixed value for the quantities covered by the swaps. Based upon copper swaps outstanding at December 31, 1999 that will mature during 2000, management estimates a 10% decrease in the price of copper from the December 31, 1999 level will reduce the gain on these contracts and decrease pre-tax income by approximately \$0.2 million. This calculation excludes the additional profit that the Company anticipates it would make by selling copper at a fixed price that cost 10% less than it does on December 31, 1999.

The Company is exposed to changes in interest rates on its debt and cash. This interest rate exposure is managed by maintaining a combination of short-term and long-term debt and variable and fixed rate instruments. The Company also uses interest rate swaps to fix the interest rate on variable debt obligations as it deems appropriate. Excess cash, if any, is typically invested in high quality instruments that mature in seven days or less. If interest rates were to increase 200 basis points (2%) from the December 31, 1999 rates and assuming no changes in debt or cash from the December 31, 1999 levels, the additional annual net expense would be approximately \$0.6 million on a pre-tax basis. The calculation excludes any additional expense on fixed rate debt that is scheduled to mature in 2000 that may or may not be extended at the prevailing interest rates.

The Company sells products in foreign currencies, mainly the deutschmark, yen and pound sterling. The majority of these products' costs are incurred in U.S. dollars. The Company is exposed to currency movements

in that if the U.S. dollar strengthens, the translated value of the foreign currency sale and the resulting margin will be reduced. The Company does not change the price of its products for short-term exchange rate movements because of its local competition. To minimize this exposure, the Company purchases foreign currency forward contracts and options. Should the dollar strengthen, the decline in margins should be offset by a gain on the contract. A decrease in the value of the dollar would result in larger margins but potentially a loss on the contract, depending upon the method used to hedge. If the dollar weakened 10% against all currencies from the December 31, 1999 exchange rates, the additional loss on the outstanding contracts as of December 31, 1999 would reduce pre-tax profits by approximately \$3.5 million. This calculation does not take into account the increase in margins as a result of translating foreign currency sales at the more favorable exchange rate, any changes in margins from potential volume fluctuations caused by currency movements, or the translation effects on any other foreign currency denominated income statement or balance sheet item.

The notional value of the outstanding currency contracts increased from \$44.8 million at December 31, 1998 to \$56.2 million at December 31, 1999 as a result of the Company increasing its coverage to the estimated exposures greater than one year but less than two years out. The notional value of the copper swaps was \$1.6 million at December 31, 1999 compared to \$8.1 million at December 31, 1998. In 1999, the Company reduced its coverage of exposures greater than one year to allow for flexibility and due to other market forces. The notional value of the interest rate swaps at December 31, 1999 remained unchanged from December 31, 1998.

#### ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The report of independent auditors and the following Consolidated Financial Statements of the Company for the year ended December 31, 1999 are set forth on pages F-1 to F-25.

#### Consolidated Balance Sheets -- December 31, 1999 and 1998.

Consolidated Statements of Income -- Years ended December 31, 1999, 1998 and 1997.

Consolidated Statements of Shareholders' Equity -- Years ended December 31, 1999, 1998 and 1997.

Consolidated Statements of Cash Flows -- Years ended December 31, 1999, 1998 and 1997.

#### **Notes to Consolidated Financial Statements.**

Quarterly data is set forth in Note O to the Consolidated Financial Statements.

#### ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

#### **PART III**

#### ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT

The information required under this heading is incorporated by reference from the Proxy Statement for the Company's 2000 annual meeting to be filed with the Securities and Exchange Commission pursuant to Regulation 14A. Information with respect to Executive Officers of the Company is set forth under Item 4A -- Executive Officers of the Registrant.

#### ITEM 11. EXECUTIVE COMPENSATION

The information required under this heading is incorporated by reference from the Proxy Statement for the Company's 2000 annual meeting to be filed with the Securities and Exchange Commission pursuant to Regulation 14A.

#### ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The information required under this heading is incorporated by reference from the Proxy Statement for the Company's 2000 annual meeting to be filed with the Securities and Exchange Commission pursuant to Regulation 14A.

#### ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Not applicable.

#### PART IV

#### ITEM 14. EXHIBITS, FINANCIAL STATEMENTS SCHEDULES AND REPORTS ON FORM 8-K

#### (a) 1. FINANCIAL STATEMENTS AND SUPPLEMENTAL INFORMATION

Included in Item 8 of this Form 10-K annual report are the following consolidated financial statements:

#### Consolidated Balance Sheets -- December 31, 1999 and 1998.

Consolidated Statements of Income -- Years ended December 31, 1999, 1998 and 1997.

Consolidated Statements of Shareholders' Equity -- Years ended December 31, 1999, 1998 and 1997.

Consolidated Statements of Cash Flows -- Years ended December 31, 1999, 1998 and 1997.

#### Notes to Consolidated Financial Statements.

#### Report of Independent Auditors.

#### (a) 2. FINANCIAL STATEMENT SCHEDULES

The following consolidated financial information for the years ended December 31, 1999, 1998 and 1997 is submitted herewith:

Schedule II -- Valuation and qualifying accounts (page 28).

All other schedules for which provision is made in the applicable accounting regulations of the Securities and Exchange Commission are not required under the related instructions or are inapplicable, and therefore have been omitted.

#### (a) 3. EXHIBITS

- (3a) Second Amended and Restated Articles of Incorporation of the Company dated January 27, 1998 (filed as Exhibit 3a to the Company's Form 10-K Annual Report for the year ended December 31, 1997), incorporated herein by reference.
- (3b) Regulations of the Company as amended April 27, 1993 (filed as Exhibit 3b to the Company's Form 10-K Annual Report for the year ended December 31, 1994, Commission File No. 1-7006), incorporated herein by reference.
- (4a) Credit Agreement dated as of December 13, 1994 between the Company and National City Bank acting for itself and as agent for three other banking institutions (filed as Exhibit 4a to the Company's Form 10-K Annual Report for the year ended December 31, 1994, Commission File No. 1-7006), incorporated herein by reference.
- (4b) First Amendment to Amended and Restated Credit Agreement dated December 30, 1996 between Brush Wellman Inc. and National City Bank acting for itself and as agent for three other banking institutions (filed as Exhibit 4b to the Company's Form 10-K Annual Report for the year ended December 31, 1996), incorporated herein by reference.
- (4c) Second Amendment to Amended and Restated Credit Agreement dated September 2, 1997 between Brush Wellman Inc. and National City Bank acting for itself and as agent for certain other banking institutions (filed as Exhibit 4c to the Company's Form 10-K Annual Report for the year ended December 31, 1997), incorporated herein by reference.
- (4d) Third Amendment to Amended and Restated Credit Agreement dated January 26, 1999 between Brush Wellman Inc. and National City Bank acting for itself and as agent for certain other banking institutions (filed as Exhibit 4d to the Company's Form 10-K Annual Report for the year ended December 31, 1998), incorporated herein by reference.

- (4e) Rights Agreement between the Company and National City Bank N.A. dated January 27, 1998 (filed as Exhibit 4d to the Company's Form 10-K Annual Report for the year ended December 31, 1997), incorporated herein by reference.
- (4f) Issuing and Paying Agency Agreement dated as of February 1, 1990, including a specimen form of a medium term note issued thereunder, between the Company and First Trust N.A. (formerly with Morgan Guaranty Trust Company of New York) (filed as Exhibit 4c to the Company's Form 10-K Annual Report for the year ended December 31, 1994, Commission File No. 1-7006), incorporated herein by reference.
- (4g) Pursuant to Regulation S-K, Item 601 (b)(4), the Company agrees to furnish to the Commission, upon its request, a copy of the instruments defining the rights of holders of long-term debt of the Company that are not being filed with this report.
- (4h) Fourth Amendment to Amended and Restated Credit Agreement dated September 30, 1999 between Brush Wellman Inc. and National City Bank acting for itself and as agent for certain other banking institutions.
- (10a)\* Employment Agreement entered into by the Company and Mr.
   Gordon D. Harnett on March 20, 1991 (filed as Exhibit 10a to
   the Company's Form 10-K Annual Report for the year ended
   December 31, 1990, Commission File No. 1-7006), incorporated
   herein by reference.
- (10b)\* Form of Employment Agreement entered into by the Company and Mr. Sandor on February 20, 1989 (filed as Exhibit 10b to the Company's Form 10-K Annual Report for the year ended December 31, 1994, Commission File No. 1-7006), incorporated herein by reference.
- (10c)\* Form of Employment Agreement entered into by the Company and Messrs. Anderson, Frazier, Hasychak, Lubrano and Paschall on March 2, 1999 (filed as Exhibit 10c to the Company's Form 10-K Annual Report for the year ended December 31, 1998), incorporated herein by reference.
- (10d)\* Form of Amendment to the Employment Agreement (dated February 20, 1989) entered into by the Company and Mr. Sandor dated February 28, 1991 (filed as Exhibit 10c to the Company's Form 10-K Annual Report for the year ended December 31, 1990, Commission File No. 1-7006), incorporated herein by reference.
- (10e)\* Form of Employment Agreement entered into by the Company and Mr. Daniel A. Skoch on January 28, 1992, Mr. Stephen Freeman dated August 3, 1993 and Mr. Brian J. Derry dated May 6, 1997 (filed as Exhibit 10d to the Company's Form 10-K Annual Report for the year ended December 31, 1991, Commission File No. 1-7006), incorporated herein by reference.
- (10f)\* Form of Employment Agreement entered into by the Company and Mr. William R. Seelbach dated June 29, 1998 (filed as Exhibit 10a to the Company's Form 10-Q Quarterly Report for the quarter ended July 3, 1998), incorporated herein by reference.
- (10g)\* Employment Arrangement between the Company and Mr. William
  R. Seelbach dated June 3, 1998 (filed as Exhibit 10b to the
  Company's Form 10-Q Quarterly Report for the quarter ended
  July 3, 1998), incorporated herein by reference.
- (10h)\* Addendum to Employment Arrangement between the Company and Mr. William R. Seelbach dated June 24, 1998 (filed as Exhibit 10c to the Company's Form 10-Q Quarterly Report for the quarter ended July 3, 1998), incorporated herein by reference.
- (10i) Form of Indemnification Agreement entered into by the Company and Mr. William R. Seelbach dated June 29, 1998 (filed as Exhibit 10d to the Company's Form 10-Q Quarterly Report for the quarter ended July 3, 1998), incorporated herein by reference.

- (10j)\* Form of Trust Agreement between the Company and Key Trust Company of Ohio, N.A. (formerly Ameritrust Company National Association) on behalf of the Company's executive officers (filed as Exhibit 10e to the Company's Form 10-K Annual Report for the year ended December 31, 1994, Commission File No. 1-7006), incorporated herein by reference.
- (10k) Form of Indemnification Agreement entered into by the Company and its executive officers (filed as Exhibit 10g to the Company's Form 10-K Annual Report for the year ended December 31, 1994, Commission File No. 1-7006), incorporated herein by reference.
- (101) Form of Indemnification Agreement entered into by the Company and its directors (filed as Exhibit 10h to the Company's Form 10-K Annual Report for the year ended December 31, 1994, Commission File No. 1-7006), incorporated herein by reference.
- (10m)\* Deferred Compensation Plan for Nonemployee Directors effective January 1, 1992 (filed as Exhibit I to the Company's Proxy Statement dated March 6, 1992, Commission File No. 1-7006), incorporated herein by reference.
- (10n)\* Form of Trust Agreement between the Company and National City Bank dated January 1, 1992 on behalf of Nonemployee Directors of the Company (filed as Exhibit 10k to the Company's Form 10-K Annual Report for the year ended December 31, 1992, Commission File No. 1-7006), incorporated herein by reference.
- (10o)\* Incentive Compensation Plan adopted December 16, 1991, effective January 1, 1992 (filed as Exhibit 10l to the Company's Form 10-K Annual Report for the year ended December 31, 1991, Commission File No. 1-7006), incorporated herein by reference.
- (10p)\* Supplemental Retirement Plan as amended and restated December 1, 1992 (filed as Exhibit 10n to the Company's Form 10-K Annual Report for the year ended December 31, 1992, Commission File No. 1-7006), incorporated herein by reference.
- (10q)\* Amendment Number 2, adopted January 1, 1996, to Supplemental Retirement Benefit Plan as amended and restated December 1, 1992 (filed as Exhibit 10o to the Company's Form 10-K Annual Report for the year ended December 31, 1995, Commission File No. 1-7006), incorporated herein by reference.
- (10r)\* Amendment Number 3, adopted May 5, 1998, to Supplemental Retirement Benefit Plan as amended and restated December 1, 1992 (filed as Exhibit 10s to the Company's Form 10-K Annual Report for the year ended December 31, 1998), incorporated herein by reference.
- (10s)\* Amendment Number 4, adopted December 1, 1998, to Supplemental Retirement Benefit Plan as amended and restated December 1, 1992 (filed as Exhibit 10t to the Company's Form 10-K Annual Report for the year ended December 31, 1998), incorporated herein by reference.
- (10t)\* Amendment Number 5, adopted December 31, 1998, to Supplemental Retirement Benefit Plan as amended and restated December 1, 1992 (filed as Exhibit 10u to the Company's Form 10-K Annual Report for the year ended December 31, 1998), incorporated herein by reference.
- (10u)\* Form of Trust Agreement between the Company and Key Trust Company of Ohio, N.A. (formerly Society National Bank) dated January 8, 1993 pursuant to the December 1, 1992 amended Supplemental Retirement Benefit Plan (filed as Exhibit 10p to the Company's Form 10-K Annual Report for the year ended December 31, 1992, Commission File No. 1-7006), incorporated herein by reference.

- (10v)\* Key Employee Share Option Plan (filed on Form S-8 on May 5, 1998), incorporated herein by reference.
- (10w)\* 1979 Stock Option Plan, as amended pursuant to approval of shareholders on April 21, 1982 (filed as Exhibit 15A to Post- Effective Amendment No. 3 to Registration Statement No. 2-64080), incorporated herein by reference.
- (10x)\* 1984 Stock Option Plan as amended by the Board of Directors on April 18, 1984 and February 24, 1987 (filed as Exhibit 4.4 to Registration Statement No. 33-28605), incorporated herein by reference.
- (10y)\* 1989 Stock Option Plan (filed as Exhibit 4.5 to Registration Statement No. 33-28605), incorporated herein by reference.
- (10z)\* 1995 Stock Incentive Plan as Amended March 3, 1998 (filed as Exhibit A to the Company's Proxy Statement dated March 16, 1998, Commission File No. 1-7006), incorporated herein by reference.
- (10aa) Lease dated as of October 1, 1996, between Brush Wellman Inc. and Toledo-Lucas County Port Authority (filed as Exhibit 10v to the Company's Form 10-K Annual Report for the year ended December 31, 1996), incorporated herein by reference.
- (10bb) Master Lease Agreement dated December 30, 1996 between Brush Wellman Inc. and National City Bank acting for itself and as agent for certain participants (filed as Exhibit 10w to the Company's Form 10-K Annual Report for the year ended December 31, 1996), incorporated herein by reference.
- (10cc) First Amendment to Master Lease Agreement dated September 2, 1997 between Brush Wellman Inc. and National City Bank acting for itself and as agent for certain participants (filed as Exhibit 10ee to the Company's Form 10-K Annual Report for the year ended December 31, 1998), incorporated herein by reference.
- (10dd) Second Amendment to Master Lease Agreement and Amendment to Disbursement Schedules dated January 26, 1999 between Brush Wellman Inc. and National City Bank acting for itself and as agent for certain participants (filed as Exhibit 10ff to the Company's Form 10-K Annual Report for the year ended December 1, 1998), incorporated herein by reference.
- (10ee)\* 1997 Stock Incentive Plan for Non-Employee Directors (filed as Exhibit B to the Company's Proxy Statement dated March 16, 1998, Commission File No. 1-7006), incorporated herein by reference.
- (10ff)\* Form of Employment Agreement entered into by the Company and Mr. John Grampa dated November 2, 1999.
- (10gg)\* Brush Wellman Inc. Executive Deferred Compensation Plan, dated September 14, 1999.
- (10hh)\* Trust Agreement for Brush Wellman Inc. Executive Deferred Compensation Plan, dated September 14, 1999.
- (10ii) Third Amendment to Master Lease Agreement and Amendment to Disbursement Schedules dated September 30, 1999 between Brush Wellman Inc. and National City Bank acting for itself and as agent for certain participants.
- (21) Subsidiaries of the registrant.

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- 1	(2)	,	COILDCILC	OI	ELIBC	Œ	1 Cuiig	- тиг •

(24) Power of Attorney.

(27) Financial Data Schedule 1999.

#### (b) REPORTS ON FORM 8-K

There were no reports on Form 8-K filed during the fourth quarter of the year ended December 31, 1999.

<sup>\*</sup> Reflects management contract or other compensatory arrangement required to be filed as an Exhibit pursuant to Item 14(c) of this Report.

#### **SIGNATURES**

Pursuant to the requirements of Section 13 of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

March 29, 2000

#### **BRUSH WELLMAN INC.**

By:	/s/ GORDON D. HARNETT*
	Gordon D. Harnett Chairman of the Board, President and Chief Executive Office:
By:	/s/ JOHN D. GRAMPA
	John D. Grampa  Vice President Finance  and Chief Financial Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

/s/ GORDON D. HARNETT*	Chairman of the Board, President, Chief Executive	March 29, 2000
Gordon D. Harnett*	Officer and Director (Principal Executive Officer)	
/s/ JOHN D. GRAMPA	Vice President Finance and Chief Financial Officer	March 29, 2000
John D. Grampa	(Principal Financial and Accounting Officer)	
/s/ ALBERT C. BERSTICKER*	Director	March 29, 2000
Albert C. Bersticker*		
/s/ CHARLES F. BRUSH, III*	Director	March 29, 2000
Charles F. Brush, III*		
/s/ DAVID L. BURNER	Director	March 29, 2000
David L. Burner		
/s/ DAVID H. HOAG*	Director	March 29, 2000
David H. Hoag*		
/s/ JOSEPH P. KEITHLEY	Director	March 29, 2000
Joseph P. Keithley		
/s/ WILLIAM P. MADAR*	Director	March 29, 2000
William P. Madar*		
/s/ ROBERT M. MCINNES	Director	March 29, 2000
Robert M. McInnes		
/s/ WILLIAM R. ROBERTSON*	Director	March 29, 2000
William R. Robertson*		
/s/ JOHN SHERWIN, JR.*	Director	March 29, 2000
John Sherwin, Jr.*		

<sup>\*</sup>The undersigned, by signing his name hereto, does sign and execute this report on behalf of each of the above-named officers and directors of Brush Wellman Inc., pursuant to Powers of Attorney executed by each such officer and director filed with the Securities and Exchange Commission.

Michael C. Hammbel

Michael C. Hasychak Attorney-in-Fact

# SCHEDULE II -- VALUATION AND QUALIFYING ACCOUNTS BRUSH WELLMAN INC. AND SUBSIDIARIES

#### **YEARS ENDED DECEMBER 31, 1999, 1998 AND 1997**

COL. A	COL. B	COL. CADDITIONS		COL. D	COL. E
DESCRIPTION	BALANCE AT BEGINNING OF PERIOD	(1) CHARGED TO COSTS AND EXPENSES	(2) CHARGED TO OTHER ACCOUNTS-DESCRIBE	DEDUCTION- DESCRIBE	BALANCE AT END OF PERIOD
YEAR ENDED DECEMBER 31, 1999 Deducted from asset accounts: Allowance for doubtful					
accounts receivable Inventory reserves and	\$2,127,000	\$ (328,043)	\$0	\$ 54,808(A)	\$1,744,149
obsolescence	\$1,740,093	\$3,513,481	\$0	\$1,727,730(B)	\$3,525,844
YEAR ENDED DECEMBER 31, 1998 Deducted from asset accounts: Allowance for doubtful					
accounts receivable Inventory reserves and	\$1,058,663	\$1,090,170	\$0	\$ 21,833(A)	\$2,127,000
obsolescence	\$2,054,938	\$ 907,438	\$0	\$1,222,283(B)	\$1,740,093
YEAR ENDED DECEMBER 31, 1997 Deducted from asset accounts: Allowance for doubtful					
accounts receivable Inventory reserves and	\$ 954,289	\$ 143,666	\$0	\$ 39,292(A)	\$1,058,663
obsolescence	\$1,717,795	\$2,816,498	\$0	\$2,479,355(B)	\$2,054,938

Note A -- Bad debts written-off, net of recoveries.

Note B -- Inventory write-off.

#### REPORTS OF INDEPENDENT AUDITORS AND MANAGEMENT

#### REPORT OF INDEPENDENT AUDITORS

Board of Directors and Shareholders Brush Wellman Inc.

We have audited the accompanying consolidated balance sheets of Brush Wellman Inc. and subsidiaries as of December 31, 1999 and 1998, and the related consolidated statements of income, shareholders' equity, and cash flows for each of the three years in the period ended December 31, 1999. Our audits also included the financial statement schedule listed in the Index at Item 14(a). These financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Brush Wellman Inc. and subsidiaries at December 31, 1999 and 1998, and the consolidated results of their operations and their cash flows for each of the three years in the period ended December 31, 1999 in conformity with accounting principles generally accepted in the United States. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

/s/ ERNST & YOUNG LLP

Cleveland, Ohio January 24, 2000

#### CONSOLIDATED STATEMENTS OF INCOME

# BRUSH WELLMAN INC. AND SUBSIDIARIES YEARS ENDED DECEMBER 31, 1999, 1998, AND 1997 (DOLLARS IN THOUSANDS EXCEPT PER SHARE AMOUNTS)

	1999			1998		1997	
Net sales  Cost of sales	\$	455,707 363,773	\$	409,892 325,173	\$	433,801	
Gross profit				84,719 64,553 8,665			
Operating profit (loss)		10,558		(10,313)		36,024 553	
<pre>Income (loss) before income taxes Income taxes (benefit):</pre>							
Currently payable  Deferred		555 (609)		1,147 (5,577)			
				(4,430)			
Net income (loss)	\$		\$	(7,132)	\$	25,597	
Net income (loss) per share of common stock basic		0.40		(0.44)		1.58	
Average number of shares of common stock outstanding basic  Net income (loss) per share of common	10	5,198,885	16	5,267,804	16	5,214,718	
stock diluted		0.40		(0.44)		1.56	
Average number of shares of common stock outstanding diluted							

See notes to consolidated financial statements.

#### CONSOLIDATED STATEMENTS OF CASH FLOWS

# BRUSH WELLMAN INC. AND SUBSIDIARIES YEARS ENDED DECEMBER 31, 1999, 1998, AND 1997

	1999	1998	1997
	(Doll	ands)	
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net income (loss)	\$ 6,439	\$ (7,132)	\$ 25,597
Adjustments to reconcile net income (loss) to net cash			
provided from Operating Activities:	00 770	01 525	10 605
Depreciation, depletion and amortization	20,779	21,535	18,695
Amortization of mine development	6,258	3,054	634
Impairment of fixed assets and related intangibles  Decrease (increase) in accounts receivable		14,273 2,670	
Decrease (increase) in inventory	(16,833)	(10,266)	(12,652) 3,653
Decrease (increase) in prepaid and other current	(7,641)	(10,200)	3,053
	(6 407)	(0.000)	(4 001)
assets	(6,487)	(8,969)	(4,001)
Increase (decrease) in accounts payable and accrued	16 000	1 001	10 100
expenses	16,080	1,091	10,126
Increase (decrease) in interest and taxes payable	1,041	(1,671)	(2,536)
Increase (decrease) in deferred income taxes	6,684	3,490	1,468
Increase (decrease) in other long-term liabilities	(39)	1,739	962
Other net	(1,806)	(328)	(1,550)
NET CASH PROVIDED FROM OPERATING ACTIVITIES CASH FLOWS FROM INVESTING ACTIVITIES:	24,475	19,486	40,394
Payments for purchase of property, plant, and equipment	(16.758)	(36.732)	(53,155)
Payments for mine development	(288)	(433)	(9,526)
Payments for acquisition of business		(12,376)	
Other investments net	37	6,331	(1,686)
NET CASH (USED IN) INVESTING ACTIVITIESCASH FLOWS FROM FINANCING ACTIVITIES:	(17,009)	(43,210)	(64,367)
Proceeds from issuance of short-term debt	221	15,595	6,997
Proceeds from issuance of long-term debt	36,000	15,000	
Repayment of long-term debt	(20,000)	(800)	(960)
Repayment of short-term debt	(17,905)	(1,815)	(93)
Purchase of treasury stock		(5,349)	(4,927)
Issuance of common stock under stock option plans	188	3,561	5,872
Payments of dividends	(7,843)	(7,812)	(7,285)
NET CASH PROVIDED FROM (USED IN) FINANCING			
ACTIVITIES	(9,339)	18,380	(396)
Effects of exchange rate changes on cash and cash			
equivalents	34	112	(210)
NET CHANGE IN CASH AND CASH EQUIVALENTS	(1,839)	(5,232)	(24,579)
CASH AND CASH EQUIVALENTS AT BEGINNING OF YEAR	1,938	7,170	31,749
CASH AND CASH EQUIVALENTS AT END OF YEAR	\$ 99	\$ 1,938	* 7,170
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See notes to consolidated financial statements.

### CONSOLIDATED BALANCE SHEETS

# BRUSH WELLMAN INC. AND SUBSIDIARIES DECEMBER 31, 1999 AND 1998

	1999	1998
	(DOLLARS IN	THOUSANDS)
ASSETS		
CURRENT ASSETS  Cash and cash equivalents	\$ 99	\$ 1,938
\$2,127 for 1998)	79,772	62,181
Inventories	110,570	103,108
Prepaid expenses Deferred income taxes	7,204 26,610	7,210 20,087
TOTAL CURRENT ASSETS	224,255	194,524
OTHER ASSETSPROPERTY, PLANT, AND EQUIPMENT	44,547	44,697
Land	5,875	5,426
Buildings	92,802	88,912
Machinery and equipment	298,539 5,452	282,492 10,694
Allowances for depreciation	(254,397)	(236,520)
	140 071	151 004
Mineral resources	148,271 5,106	151,004 5,101
Mine development	13,519	28,842
Allowances for amortization and depletion	(11,207)	(20,478)
	7,418	13,465
PROPERTY, PLANT, AND EQUIPMENT NET	155,689	164,469
	\$ 424,491 =======	\$ 403,690 ======
LIABILITIES AND SHAREHOLDERS' EQUITY		
CURRENT LIABILITIES Short-term debt	\$ 34,687	\$ 45,587
Accounts payable	27,731	15,156
Salaries and wages	12,385	8,381
Taxes other than income taxes	3,340	3,196
Other liabilities and accrued items	14,144	14,905
Dividends payable	1,959	1,966
Income taxes	5,178	4,341
TOTAL CURRENT LIABILITIES	99,424	93,532
OTHER LONG-TERM LIABILITIES	10,492	10,507
RETIREMENT AND POST-EMPLOYMENT BENEFITS	39,430	39,448
LONG-TERM DEBT  DEFERRED INCOME TAXES	42,305 12,202	32,105 6,287
SHAREHOLDERS' EQUITY	12,202	0,207
Serial preferred stock, no par value; 5,000,000 shares authorized, none issued		
Common stock, \$1 par value		
Authorized 45,000,000 shares; issued 22,517,363 issued	00 515	00 401
shares (22,481,321 for 1998)	22,517 63,901	22,481 63,974
Retained income	237,893	239,230
100011100 11100mc/////////////////////////////////		
Common stock in treasury, 6,190,077 shares in 1999	324,311	325,685
(6,177,418 in 1998)	(104,565) 892	(104,050) 176
TOTAL SHAREHOLDERS' EQUITY	220,638	221,811
	 \$ 424,491	\$ 403,690
	=======	=======

See notes to consolidated financial statements.

# CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

# BRUSH WELLMAN INC. AND SUBSIDIARIES YEARS ENDED DECEMBER 31, 1999, 1998, AND 1997

(DOLLARS IN THOUSANDS EXCEPT PER SHARE AMOUNTS)

	COMMON STOCK	ADDITIONAL PAID-IN CAPITAL	RETAINED INCOME	COMMON STOCK IN TREASURY	OTHER COMPREHENSIVE INCOME	OTHER	TOTAL
BALANCES AT JANUARY 1, 1997  Net income  Foreign currency translation	\$21,909	\$53,650	\$236,043 25,597	\$ (91,357)	\$ 27	\$(1,015)	\$219,257 25,597
adjustment					(1,657)		(1,657)
Comprehensive income  Declared dividends \$.46 per share  Proceeds from sale of 309,196 shares			(7,463)				23,940 (7,463)
under option plans Income tax benefit from employees'	309	4,821					5,130
stock options  Other equity transactions  Forfeiture of restricted stock  Purchase of shares for treasury	9	742 370	(3)	(355) (4,927)		113	742 489 (355) (4,927)
BALANCES AT DECEMBER 31, 1997  Net loss	22,227	59,583	254,174 (7,132)	(96,639)	(1,630)	(902)	236,813 (7,132)
adjustment					1,563		1,563
Comprehensive loss  Declared dividends \$.48 per share  Proceeds from sale of 179,101 shares			(7,812)				(5,569) (7,812)
under option plansIncome tax benefit from employees'	179	2,875					3,054
stock options	75	496 1,020		(1,471) (591) (5,349)		1,145	496 769 (591) (5,349)
BALANCES AT DECEMBER 31, 1998  Net income	22,481	63,974	239,230 6,439	(104,050)	(67)	243	221,811 6,439
adjustment					59		59
Comprehensive income  Declared dividends \$.48 per share  Proceeds from sale of 12,220 shares			(7,776)				6,498 (7,776)
under option plansIncome tax benefit from employees'	12	168					180
stock options Other equity transactions Forfeiture of restricted stock	24	8 (249)		(272) (243)		657	8 160 (243)
BALANCES AT DECEMBER 31, 1999	\$22,517 ======	\$63,901 =====	\$237,893 ======	\$(104,565) ======	\$ (8) ======	\$ 900 =====	\$220,638 ======

See notes to consolidated financial statements.

# BRUSH WELLMAN INC. AND SUBSIDIARIES DECEMBER 31, 1999

### NOTE A -- SIGNIFICANT ACCOUNTING POLICIES

ORGANIZATION: The Company is a manufacturer of engineered materials used in the computer and related electronics, telecommunications, automotive electronics, industrial components, optical media, data storage, and decorative and performance film markets. The Company also sells into the aerospace/defense and appliance/ consumer markets. The majority of sales are to customers in North America, Western Europe, and the Pacific Rim. The Company's Metal Systems Group produces strip and bulk alloys (primarily copper beryllium), beryllium, and Engineered Material Systems. The Microelectronics Group manufactures precious and non-precious metal vapor deposition targets, other precious metals, specialty alloys, ceramics, powder metallurgy, thick film metalization and electronic packages. These two business segments are structured based upon commonalties of the products manufactured and/or markets served. The Company is vertically integrated and distributes its products through a combination of Company-owned facilities and outside distributors and agents.

USE OF ESTIMATES: The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results may differ from those estimates.

CONSOLIDATION: The consolidated financial statements include the accounts of Brush Wellman Inc. and its subsidiaries, all of which are wholly-owned. Intercompany accounts and transactions are eliminated in consolidation.

CASH EQUIVALENTS: All highly liquid investments with a put option or maturity of three months or less when purchased are considered to be cash equivalents.

INVENTORIES: Inventories are stated at the lower of cost or market. The cost of domestic inventories except ore and supplies is principally determined using the last-in, first-out (LIFO) method. The remaining inventories are stated principally at average cost.

PROPERTY, PLANT, AND EQUIPMENT: Property, plant, and equipment is stated on the basis of cost. Depreciation is computed principally by the straight-line method, except certain facilities for which depreciation is computed by the sum-of-the-years digits or units-of-production method. Depreciable lives that are used in computing the annual provision for depreciation by class of asset are as follows:

	YEARS
Land improvements	5 to 25
Buildings	10 to 40
Leasehold improvements	Life of lease
Machinery and equipment	3 to 15
Furniture and fixtures	4 to 15
Automobiles and trucks	2 to 8
Research equipment	6 to 12
Computer hardware	3 to 10

Depreciation expense was \$18,438,000 in 1999, \$20,708,000 in 1998, and \$18,128,000 in 1997.

The Company adopted the provisions of Statement of Position 98-1, "Accounting for the Costs of Computer Software Developed or Obtained for Internal Use," in 1999. The impact of this adoption on the Company's financial statements was not significant. Computer software, which is included in Other Assets on the Consolidated Balance Sheets, is amortized over three to ten years.

### BRUSH WELLMAN INC. AND SUBSIDIARIES -- (CONTINUED)

MINERAL RESOURCES AND MINE DEVELOPMENT: Property acquisition costs and mining costs associated with waste rock removal are recorded at cost and are depleted or amortized by the units-of-production method based on recoverable proven beryllium reserves. Exploration and pre-production mine development expenses are charged to operations in the period in which they are incurred.

INTANGIBLE ASSETS: The cost of intangible assets is amortized by the straight-line method over the periods estimated to be benefited, which is generally twenty years or less.

ASSET IMPAIRMENT: In the event that facts and circumstances indicate that the carrying value of long-lived and intangible assets may be impaired, an evaluation of recoverability would be performed. If an evaluation is required, the estimated future undiscounted cash flow associated with the asset would be compared to the asset's carrying amount to determine if a write-down may be required.

DERIVATIVES: The Company uses derivatives to manage its foreign currency, interest rate, and commodity price exposures. Forward foreign exchange currency contracts that do not qualify for hedge accounting treatment are marked-to-market using the applicable rates and any unrealized gains and losses are taken to income. Realized gains and losses on forward contracts, swaps, and options are taken to income when the financial instrument matures. Gains and losses on foreign currency derivative contracts are recorded in Other-net while gains and losses on commodity derivative contracts are recorded in Cost of sales. Gains and losses on interest rate derivatives are recorded in Cost of sales or Interest expense depending upon the nature of the underlying hedged transaction. The outstanding commodity and interest rate derivatives qualify for hedge accounting treatment. Option premiums are classified as prepaid expenses and amortized over the term of the option.

In June 1998, the Financial Accounting Standards Board issued Statement No. 133, "Accounting for Derivative Instruments and Hedging Activities," which is required to be adopted in years beginning after June 15, 2000. The Statement permits early adoption as of the beginning of any fiscal quarter after its issuance. The Statement will require the Company to recognize all derivatives on the balance sheet at fair value. Derivatives that are not hedges must be adjusted to fair value through income. If the derivative is a hedge, depending on the nature of the hedge, changes in the fair value of derivatives will either be offset against the change in fair value of the hedged assets, liabilities, or firm commitments through earnings or recognized in other comprehensive income until the hedged item is recognized in earnings. The ineffective portion of a derivative's change in fair value will be immediately recognized in earnings. The Company has not yet determined when it will adopt the Statement nor has it determined what the effect of the Statement will be on earnings and the financial position of the Company.

REVENUE RECOGNITION: The Company recognizes revenue when goods are shipped and title passes to the customer.

ADVERTISING COSTS: The Company expenses all advertising costs as incurred. Advertising costs were immaterial for the years presented in the consolidated financial statements.

EXCHANGE GAIN(LOSS): Included in Other-net in the Consolidated Statements of Income is an exchange gain(loss) of \$2,240,000 in 1999, (\$1,752,000) in 1998, and \$2,275,000 in 1997.

INCOME TAXES: The Company uses the liability method as required by Statement of Financial Accounting Standards (SFAS) No. 109 in measuring the provision for income taxes and recognizing deferred tax assets and liabilities on the balance sheet.

RECLASSIFICATION: Certain amounts in prior years have been reclassified to conform with the 1999 consolidated financial statement presentation.

NET INCOME PER SHARE: Basic earnings per share (EPS) is computed by dividing income available to common stockholders by the weighted average number of common shares outstanding for the period. Diluted

### BRUSH WELLMAN INC. AND SUBSIDIARIES -- (CONTINUED)

EPS reflects the assumed conversion of all dilutive common stock equivalents as appropriate under the treasury stock method.

### **NOTE B -- ACQUISITIONS**

At the end of the second quarter of 1998, the Company acquired certain assets of Pure Tech Inc. for cash. The transaction was accounted for as a purchase and did not have a material impact on operations.

### **NOTE C -- INVENTORIES**

Inventories in the consolidated balance sheets are summarized as follows:

	DECEMBER 31,		
	1999	1998	
Principally average cost:	(DOLLARS	IN THOUSANDS)	
Raw materials and supplies	73,192	\$ 18,708 60,919	
Finished goodsGross inventories	39,634  133,346	42,021  121,648	
Excess of average cost over LIFO Inventory value	22,776	18,540	
Net inventories	\$110,570 ======	\$103,108 ======	

Average cost approximates current cost. Gross inventories accounted for using the LIFO method total \$100,529,000 at December 31, 1999 and \$92,715,000 at December 31, 1998.

### **NOTE D -- INTEREST**

Interest expense associated with active construction and mine development projects is capitalized and amortized over the future useful lives of the related assets. Interest paid was \$4,534,000, \$2,732,000, and \$2,560,000 in 1999, 1998, and 1997, respectively. Interest costs capitalized and the amounts amortized are as follows:

	DECEMBER 31,			
	1999	1998	1997	
	(DOLLA	RS IN THOU	SANDS)	
Interest incurred		\$2,829		
Less capitalized interest	129	1,580	1,818	
	\$4,173	\$1,249	\$ 553	
	=====	=====	=====	
Amortization, included principally in cost of sales	\$ 880	\$ 697	\$ 600	
	=====	=====	=====	

In 1986, the Company purchased company-owned life insurance policies insuring the lives of certain United States employees. The contracts are recorded at cash surrender value, net of policy loans, in Other Assets. The net contract (income) expense, including interest expense recorded in Selling, Administrative, and General expenses, was (\$283,000), \$580,000 and \$1,075,000 in 1999, 1998, and 1997, respectively. The related interest expense was \$2,404,000, \$2,966,000, and \$3,081,000, respectively.

### BRUSH WELLMAN INC. AND SUBSIDIARIES -- (CONTINUED)

### **NOTE E -- DEBT**

A summary of long-term debt follows:

	DECEMBER 31		
	1999	1998	
	(DOLLARS	IN THOUSANDS)	
9.68% medium-term notes, payable in 2000 Variable rate demand bonds payable in installments beginning	\$ 5,000	\$ 5,000	
in 2005	3,000	3,000	
in equal installments through 2000	800	1,600	
in 2016	8,305	8,305	
Revolving credit agreement	31,000	15,000	
	48,105		
Current portion of long-term debt	(5,800)	(800)	
	\$42,305	\$32,105	
	======	======	

Maturities on long-term debt instruments as of December 31, 1999 are as follows:

	(DOLLARS IN
	THOUSANDS)
2000	\$ 5,800
2001	0
2002	31,000
2003	
2004	0
Thereafter	11,305
	\$48,105
	======

/----

The Company has a revolving credit agreement with five banks which provide a maximum availability of \$55,000,000 through January, 2002. At December 31, 1999, there is \$31,000,000 in borrowings outstanding against this agreement at an average rate of 7.85% that is fixed through January, 2000 at which time it will be reset according to the terms and options available to the Company under the agreement. The agreement allows the Company to borrow money at a premium over LIBOR or prime rate and at varying maturities.

The following table summarizes the Company's short-term lines of credit. Amounts shown as outstanding are included in short-term debt on the Consolidated Balance Sheets.

	DECEMBER 31, 1999				
	TOTAL OUTSTANDING AVAIL				
	(DOLLARS IN THOUSANDS)				
Domestic	\$ 5,000	\$ 800	\$ 4,200		
Foreign	34,851	21,169	13,682		
Precious Metal	6,918	6,918			
Total	\$46,769	\$28,887	\$17,882		
	======	======	======		

### **BRUSH WELLMAN INC. AND SUBSIDIARIES -- (CONTINUED)**

	DECEMBER 31, 1998			
	TOTAL OUTSTANDING AVAI			
	(DOLLARS IN THOUSANDS)			
Domestic	\$20,000	\$12,423	\$ 7,577	
Foreign	37,903	25,544	12,359	
Precious Metal	6,844	6,820	24	
Total	\$64,747	\$44,787	\$19,960	
	======	======	======	

The domestic and foreign lines are uncommitted, unsecured, and renewed annually. The precious metal facility (primarily gold) is secured and renewed annually. Also included in short-term debt at December 31, 1999 is \$800,000 representing the current maturity of an industrial development revenue bond and \$5,000,000 representing the current maturity of a medium-term note. The average interest rate on short-term debt was 3.68% and 3.70% as of December 31, 1999 and 1998, respectively.

The Company has a private placement agreement whereby the Company can issue up to an aggregate of \$75,000,000 of medium-term notes (\$5,000,000 outstanding at December 31, 1999). The notes bear a fixed interest rate and may have maturities from nine months to thirty years from date of issue as agreed upon in each case by the purchaser and the Company.

In November, 1996, the Company entered into an agreement with the Lorain Port Authority, Ohio to issue \$8,305,000 in variable rate industrial revenue bonds, maturing in 2016. The variable rate ranged from 2.44% to 5.71% during 1999 and from 3.09% to 4.64% during 1998.

In 1994, the Company re-funded its \$3,000,000 industrial development revenue bonds. The 7.25% bonds were re-funded into variable rate demand bonds. The variable rate ranged from 2.30% to 5.55% during 1999 and from 2.95% to 4.45% during 1998. In December 1995, the Company entered into an interest rate swap agreement to manage its interest rate exposure on the \$3,000,000 variable rate demand bond. The Company converted the variable rate to a fixed rate of 6.03% under the interest rate swap agreement that matures in 2002.

The loan agreements include certain restrictive covenants covering the incurrence of additional debt, interest coverage, and maintenance of working capital, tangible net worth (as defined), and debt to earnings ratio. The most restrictive covenant is the funded debt to earnings before interest, taxes, depreciation, and amortization (EBITDA) ratio. In January, 1999 and September 1999, the Company revised certain provisions of its revolving credit agreement and a master lease agreement (see Note F to the Consolidated Financial Statements), including the funded debt to EBITDA ratio.

### NOTE F -- LEASING ARRANGEMENTS

The Company leases warehouse and manufacturing space, and manufacturing and computer equipment under operating leases with terms ranging up to 25 years. Rent expense amounted to \$10.5 million, \$6.8 million, and \$4.3 million during 1999, 1998, and 1997, respectively. The future estimated minimum lease payments under non-cancelable operating leases with initial lease terms in excess of one year at December 31, 1999, are as follows: 2000 -- \$9.1 million; 2001 -- \$8.9 million; 2002 -- \$4.2 million; 2003 -- \$4.1 million; 2004 -- \$3.9 million; and thereafter -- \$19.9 million.

The Company has operating leases for a production facility and certain equipment located in that facility. The facility and related equipment are owned by third parties and cost approximately \$80.0 million. Start-up of this facility began in the fourth quarter of 1997. Lease payments for the facility continue through 2011 with options for renewal. Lease payments for the related equipment began in 1999 and continue through the initial lease term expiring in 2001. The Company has options to renew the lease of the equipment for seven one-year periods and to purchase the equipment for its estimated fair value at the end of each term. The lease provides

### BRUSH WELLMAN INC. AND SUBSIDIARIES -- (CONTINUED)

for a substantial residual value guarantee by the Company at the termination of the lease. The estimated minimum payments under these leases are included in the preceding paragraph.

The lease agreements include restrictive covenants covering certain liquidity ratios, maintenance of tangible net worth (as defined), and maximum rental expenses. In January and September of 1999, the Company amended certain provisions of its master lease agreement, including its covenant regarding the funded debt to earnings before interest, taxes, depreciation, and amortization (EBITDA) ratio.

### NOTE G -- DERIVATIVE FINANCIAL INSTRUMENTS AND FAIR VALUE INFORMATION

The Company is exposed to commodity price, interest rate, and foreign currency exchange rate differences and attempts to minimize the effects of these exposures through a combination of natural hedges and the use of derivative financial instruments. The following table summarizes the fair value of the Company's outstanding derivatives and debt as of December 31, 1999 and December 31, 1998.

	DECEMBER 31, 1999			December 31, 1998			
	NOTIONAL AMOUNT	CARRYING AMOUNT	CARRYING FAIR AMOUNT VALUE		NOTIONAL CARRYING AMOUNT AMOUNT		
		(	DOLLARS IN	THOUSANDS)			
FOREIGN CURRENCY CONTRACTS							
Forward Contracts							
Yen		\$(887)		\$ 7,800			
Deutschmark	. ,	276	276	13,300	(593)	(593)	
Pound Sterling	300	(8)		4,200		(9)	
_							
Total		\$(619)	\$ (619)	\$ 25,300	1 ( /	\$ (738)	
0	======	====	=====	======	====	======	
Options	* 00 400		* (40E)	* 0 500		* (10E)	
Yen				\$ 9,700		\$ (137)	
Deutschmark	8,600			9,800		143	
Pound Sterling	4,000		(7)				
_							
Total	\$ 35,000		\$ (397)	\$ 19,500		\$ 6	
	======	=====	=====	======	=====	======	
COMMODITY SWAPS							
Floating To Fixed	\$ 1,610		\$ 165	\$ 8,100		\$(1,200)	
INTEREST RATE SWAPS	+440 500		+4 550	+440 =00		+ / 4 . 0.00	
Floating To Fixed	\$118,700		\$1,678	\$118,700		\$(4,308)	

SFAS No. 107 defines fair value as the amount at which an instrument could be exchanged in a current transaction between willing parties other than in a forced or liquidation sale. The fair value of the forward contracts, options, and swaps was calculated using the applicable market rates at December 31, 1999 and December 31, 1998.

### FOREIGN EXCHANGE HEDGE CONTRACTS

The Company uses forward and option contracts to hedge anticipated foreign currency transactions, primarily foreign sales. The purpose of the program is to protect against the reduction in value of the foreign currency transactions from adverse exchange rate movements. Should the dollar strengthen significantly, the decrease in the translated value of the foreign currency transactions should be partially offset by gains on the hedge contracts. Depending upon the method used, the contract may limit the benefits from a weakening of the dollar. All contracts mature in two years or less from the date of issuance.

### **BRUSH WELLMAN INC. AND SUBSIDIARIES -- (CONTINUED)**

#### COMMODITY SWAPS

The Company purchases and manufactures products containing copper. Purchases are exposed to price fluctuations in the copper market. However, for the majority of its copper-based products, the Company will adjust its selling prices to customers to reflect the change in its copper purchase price. This program is designed to be profit neutral; i.e., any changes in copper prices, either up or down, will be directly passed on to the customer.

The Company uses commodity swaps to hedge the copper purchase price for those volumes where price fluctuations cannot be passed on to the customer. Under these swaps, which are purchased from financial institutions, the Company makes or receives payments based on a difference between a fixed price (as specified in each individual contract) and the market price of copper. These payments will offset the change in prices of the underlying purchases and effectively fix the price of copper at the swap rate for the contracted volume.

#### INTEREST RATE SWAPS

In December, 1996, the Company entered into an interest rate swap agreement to hedge the variable rate payments to be made during the initial term of an equipment lease (see Note F to the Consolidated Financial Statements). The Company has accounted for the swap as a hedge, effectively fixing the estimated lease payments through the initial lease term. The maximum notional amount covered by this contract is \$60.9 million.

In February, 1998, the Company entered into an interest rate swap agreement to hedge the variable rate payments on the equipment lease mentioned above for the remaining terms of the lease. The Company has accounted for the swap as a hedge, effectively fixing the estimated lease payments through the entire term of the lease. The maximum notional amount covered by this contract is \$54.8 million.

In December, 1995, the Company entered into an interest rate swap, converting to a fixed rate from a variable rate on a \$3,000,000 industrial revenue development bond.

### **DEBT**

The fair value of the Company's debt was estimated using a discounted cash flow analysis based on the Company's current incremental borrowing rates for similar types of borrowing arrangements. Using this procedure, the fair value of the Company's debt approximates the carrying value as of December 31, 1999 and December 31, 1998.

### NOTE H -- CAPITAL STOCK

The Company has 5,000,000 shares of Serial Preferred Stock authorized (no par value), none of which has been issued. Certain terms of the Serial Preferred Stock, including dividends, redemption, and conversion will be determined by the Board of Directors prior to issuance.

On January 27, 1998, the Company's Board of Directors adopted a new share purchase rights plan and declared a dividend distribution of one right for each share of Common Stock outstanding as of the close of business on February 9, 1998. The plan allows for new shares issued after February 9, 1998 to receive one right subject to certain limitations and exceptions. Each right entitles the shareholder to buy one one-hundredth of a share of Serial Preferred Stock, Series A, at an initial exercise price of \$110. There are 450,000 unissued shares of Serial Preferred Stock which will be designated as Series A Preferred Stock. Each share of Series A Preferred Stock will be entitled to participate in dividends on an equivalent basis with one hundred shares of Common Stock. Each share of Series A Preferred Stock will be entitled to one vote. The rights will not be exercisable and will not be evidenced by separate right certificates until a specified time after any person or

### BRUSH WELLMAN INC. AND SUBSIDIARIES -- (CONTINUED)

group acquires beneficial ownership of 20% or more (or announces a tender offer for 20% or more) of Brush Wellman Common Stock. The rights expire on January 27, 2008, and can be redeemed for 1 cent per right under certain circumstances.

In May, 1997, the Company's Board of Directors authorized the repurchase of up to 1,000,000 shares of its Common Stock (not to exceed 250,000 shares per year) over a four-year period. Through December 31, 1999, the Company repurchased 455,600 shares at a total cost of \$10.3 million.

The amended 1995 Stock Incentive Plan authorizes the granting of five categories of incentive awards: option rights, performance restricted shares, performance units, and restricted shares. As of December 31, 1999, no performance units have been granted.

Option rights entitle the optionee to purchase common shares at a price equal to or greater than market value on the date of grant. Option rights outstanding under the amended 1995 Stock Incentive Plan and previous plans generally become exercisable over a four-year period and expire ten years from the date of the grant. In 1995, the Company's right to grant options on a total of 228,565 shares (under the Company's 1979, 1984, and 1989 stock option plans) was terminated upon shareholder approval of the amended 1995 Stock Incentive Plan. No further stock awards will be made under the Company's 1979, 1984, and 1989 stock option plans except to the extent that shares become available for grant under these plans by reason of termination of options previously granted.

The 1990 Stock Option Plan for Non-employee Directors (the "1990 Plan") was terminated effective May 7, 1998. The 1997 Stock Incentive Plan for Non-employee Directors replaced the 1990 Plan and provides for a one-time grant of 5,000 options to up to six new non-employee directors who have not yet received options under the 1990 Plan at an option price equal to the fair market value of the shares at the date of the grant. Options are non-qualified and become exercisable six months after the date of grant. The options generally expire ten years after the date they were granted.

### BRUSH WELLMAN INC. AND SUBSIDIARIES -- (CONTINUED)

Stock option, performance restricted share award, performance share award, and restricted share award activities are summarized in the following table:

	1999		1998		1997	
	NUMBER OF SHARES	WEIGHTED AVERAGE EXERCISE PRICE	NUMBER OF SHARES	Weighted AVERAGE EXERCISE PRICE	NUMBER OF SHARES	Weighted AVERAGE EXERCISE PRICE
STOCK OPTIONS:						
Outstanding at beginning of year	1,274,043 249,225	\$18.57 14.69	1,345,384 200,650	\$17.62 26.30	1,544,570 217,550	\$18.12 18.39
ExercisedCanceled.	(12,220) (187,140)	14.74 20.85	(179,101) (92,890)	17.35 24.18	(309,696) (107,040)	16.65 28.79
Canceled	(107,140)	20.65	(92,690)	24.10	(107,040)	20.79
Outstanding at end of year  Exercisable at end of year  PERFORMANCE RESTRICTED AWARDS:  Awarded and restricted at beginning of		17.60 17.37	1,274,043 1,070,653	18.57 17.85	1,345,384 1,141,774	17.62 17.58
year	60,450		89,815		89,815	
Awarded during the year			60,450			
Vested Forfeited	(5,388)		(6,210) (83,605)			
Awarded and restricted at end of year PERFORMANCE AWARDS:	55,062		60,450		89,815	
Allocated at beginning of year	109,947		118,127		118,127	
Allocated during the year	(1.722)		30,225			
Forfeited	(1,722) (2,694)		(38,405)			
Allocated at end of year	105,531		109,947		118,127	
Awarded and restricted at beginning of						
year Awarded during the year	49,738 22,100		34,638 16,900		26,838 9,000	
Vested						
Forfeited	(3,400)		(1,800)		(1,200)	
Awarded and restricted at end of year	68,438		49,738		34,638	

The market value of the performance restricted shares and the performance shares is adjusted for management's expectation of reaching the Management Objectives as outlined in the plan agreement, and the related dividends on the performance restricted shares have been recorded as deferred compensation-restricted stock and are a component of other equity transactions of shareholders' equity. Deferred compensation is amortized over the vesting period. Amounts recorded against selling, administrative, and general expenses totaled \$10,000 in 1999, \$160,000 in 1998 and \$458,000 in 1997.

### BRUSH WELLMAN INC. AND SUBSIDIARIES -- (CONTINUED)

The following table provides additional information about stock options outstanding as of December 31, 1999:

	OPTIONS OUTSTANDING			OPTIONS EXE	RCISABLE
RANGE OF	NUMBER	WEIGHTED AVERAGE REMAINING CONTRACTUAL	WEIGHTED AVERAGE EXERCISE	NUMBER	WEIGHTED AVERAGE EXERCISE
OPTION PRICES	OUTSTANDING	LIFE	PRICE	EXERCISABLE	PRICE
\$11.81 to \$15.75 \$16.06 to \$19.81 \$20.25 to \$26.72	643,560 456,073 224,275	5.74 5.38 7.22	\$14.69 17.63 25.88	528,810 394,433 165,460	\$14.69 17.53 25.58
	1,323,908	5.86 ====	\$17.60 =====	1,088,703	\$17.37 =====

The weighted-average remaining contractual life of options outstanding at December 31, 1998 and 1997 is 5.58 years and 5.45 years, respectively. The number of shares available for future grants as of December 31, 1999, 1998, and 1997 is 824,636 shares, 897,297 shares, and 194,757 shares, respectively.

The Company has adopted the disclosure-only provisions of SFAS No. 123, "Accounting for Stock Based Compensation" but applies APB Opinion No. 25 and related interpretation in accounting for its stock incentive plans. If the Company had elected to recognize compensation expense for its stock incentive plan awards based on the estimated fair value of the awards on the grant dates consistent with the method prescribed by SFAS No. 123 by amortizing the expense over the options' vesting period, the pro forma net income and earnings per share (E.P.S.) would have been as noted below:

		1999	1998	1997
		(Dollars in	thousands excep	t per share
			amounts)	
Net income (loss)	As reported	\$6,439	\$(7,132)	\$25,597
	Pro Forma	5,307	(7,973)	25,113
Basic E.P.S	As reported	0.40	(0.44)	1.58
	Pro Forma	0.33	(0.49)	1.55
Diluted E.P.S	As reported	0.40	(0.44)	1.56
	Pro Forma	0.33	(0.49)	1.53

Note: The pro forma disclosures shown are not representative of the effects on net income and earnings per share in future years.

The weighted-average fair value of the Company's stock options used to compute the pro forma net income and earnings per share disclosures is \$3.96, \$7.13, and \$4.99 for 1999, 1998, and 1997, respectively. The fair value is the estimated present value at grant date using the Black-Scholes option-pricing model with the following weighted-average assumptions for the various grants in 1999, 1998 and 1997:

	1999	1998	1997
Risk-free interest rate	4.77%	5.65%	6.15%
Dividend yield	3.04%	2.33%	2.00%
Volatility of stock	30.40%	31.60%	29.90%
Expected life of option	6 YEARS	4 vears	4 vears

The dividend yield is a function of dividends declared and the annual average stock price.

### BRUSH WELLMAN INC. AND SUBSIDIARIES -- (CONTINUED)

#### NOTE I - SPECIAL CHARGE

The Company recorded a special charge totaling \$22.6 million pre-tax and \$16.5 million after tax in 1998, primarily for write-downs of property, plant and equipment, inventory and goodwill and increases to environmental reserves. Of the \$22.6 million, \$5.6 million was charged to Cost of sales and \$17.0 million was charged to Other-net in the Consolidated Statements of Income for the year ended December 31, 1998. The charge recorded against Other-net consisted of an asset impairment, an increase to the environmental reserve and an increase in the allowance for doubtful accounts. The Company recorded \$21.8 million of the pre-tax charge in the second quarter with the balance recorded in the third and fourth quarters.

The Company completed an update of its long-term strategic plans in the second quarter of 1998. The updated outlook for the market opportunities for various product lines, limited success in developing new applications and slower than desired progress toward achieving prior plans indicated to management that its future growth expectations for certain of its businesses needed to be lowered. As a result, management proposed, and the Board of Directors approved, restrictions on future capital investments in product lines with limited growth potential and the abandonment of various product offerings. This caused management to believe it was necessary to evaluate the recoverability of certain of its long-lived assets in accordance with paragraphs 4 and 5 of SFAS No. 121. The evaluation in the second quarter 1998 indicated that the future cash flows on an undiscounted basis were less than the carrying value of various long-lived assets and, therefore, the assets were impaired. Property, plant and equipment and related intangibles with a carrying value of \$19.6 million were written down by \$14.3 million to their estimated fair market value. The impaired assets are being held for future use.

In the second quarter 1998, the Company's environmental engineers, working in conjunction with environmental consultants, concluded that additional remediation work would be required to redevelop land owned by the Company that had been used for the manufacturing operations of a former subsidiary. This property, which was written off after the subsidiary's operations were sold in 1986, is being held by the Company as vacant, unused land. The consultants and the Company believed that this work could be pursued under the State of Ohio's Voluntary Action Program (VAP) and determined the best estimate of the probable cost to be \$2.1 million. Under a VAP, which was enacted into law by the State of Ohio in 1996, the property owner and the Ohio EPA may agree to a remediation plan through a process which is often shorter and less costly than the lengthy EPA review process. Upon the completion of this work in the second quarter of 1998, the Company's senior management team and the Board of Directors agreed that a VAP proposal would be submitted and, as a result, the \$2.1 million reserve was established. A formal VAP proposal was subsequently developed and presented to the Ohio EPA.

As part of the special charge in 1998, the allowance for doubtful accounts was increased by \$0.6 million for a specific severely delinquent receivable. The Company continued to pursue collection of this receivable and the customer ultimately paid the past due amounts, resulting in the reversal of this provision in 1999.

The \$5.6 million charge to Cost of sales in 1998 consisted of a \$2.9 million inventory writedown as a result of management's decision in the second quarter 1998 to discontinue the manufacturing and marketing of various products, accelerated depreciation of \$1.6 million on equipment scheduled to be taken out of service and deferred manufacturing costs of \$1.1 million associated with the equipment to be abandoned or the manufacturing of products to be discontinued.

### BRUSH WELLMAN INC. AND SUBSIDIARIES -- (CONTINUED)

### **NOTE J - INCOME TAXES**

Income (loss) before income taxes and income taxes (benefit) are comprised of the following components, respectively:

	1999	1998	1997
	(Doll	ars in thous	ands)
Income (loss) before income taxes:  Domestic Foreign		\$(12,730) 1,168	
Total before income taxes			
<pre>Income taxes(benefit):   Current income taxes:</pre>			
DomesticForeign	\$ (54) 609	705	\$ 5,982 2,524
Total current  Deferred income taxes:	555		
Domestic Foreign	1 ( /	\$ (5,363) (214)	(5)
Total deferred  Total income taxes	, ,	(5,577) \$ (4,430)	

A reconciliation of the federal statutory and effective income tax rates follows:

	1999	1998	1997
Federal statutory rate	34.0%	(34.0)%	35.0%
State and local income taxes, net of federal tax effect	1.8	1.3	1.7
Effect of excess of percentage depletion over cost			
depletion	(18.8)	(14.7)	(5.5)
Company-owned life insurance	(1.3)	(4.3)	(1.5)
Research and experimentation tax credit	(16.3)		(0.5)
Difference due to book and tax basis of assets of acquired			
businesses	0.3	14.2	0.4
Taxes on foreign income net	(9.4)	(3.6)	(1.2)
Valuation allowance	5.5		
Other items	3.4	2.8	(0.6)
Effective tax rate	(0.8)%	(38.3)%	27.8%
	=====	=====	====

Included in domestic income taxes currently payable, as shown in the Consolidated Statements of Income, are \$170,000, \$234,000, and \$935,000 of state and local income taxes in 1999, 1998, and 1997, respectively.

The Company had domestic and foreign income tax payments (refunds), of \$(290,000), \$1,650,000, and \$10,507,000 in 1999, 1998, and 1997, respectively.

### BRUSH WELLMAN INC. AND SUBSIDIARIES -- (CONTINUED)

Under Statement 109, deferred tax assets and liabilities are determined based on temporary differences between the financial reporting bases and the tax bases of assets and liabilities. Deferred tax assets and (liabilities) recorded in the consolidated balance sheets consist of the following at December 31:

	1999	
		thousands)
Postretirement benefits other than pensions	\$ 12,384	\$ 12,476
Alternative minimum tax credit	18,451	11,691
Other reserves	7,612	8,094
Environmental reserves	2,738	2,684
Inventory	1,417	1,893
Tax credit carryfoward	1,041	
Net operating loss carryfoward	350	
Miscellaneous	376	265
	44,369	37,103
Valuation allowance	, ,	
Total deferred tax assets		
Depreciation	(21,880)	(14,562)
Pensions	(3,616)	(3,968)
Mine development	(1,868)	(3,444)
Capitalized interest expense	(2,247)	(1,329)
Total deferred tax liabilities	(29,611)	(23,303)
Net deferred tax asset	\$ 14,408 ======	

At December 31, 1999, for income tax purposes, the Company had domestic net operating loss carryforwards of \$4,684,000 that expire in the year 2019. The Company also had foreign net operating loss carryforwards of \$869,000 for income tax purposes that expire in the year 2004. For financial reporting purposes, a valuation allowance of \$350,000 on the foreign net operating loss has been recognized to offset the deferred tax assets related to those carryforwards.

At December 31, 1999, the Company had domestic tax credit carryforwards of \$1,041,000 that are scheduled to expire in the year 2018.

### BRUSH WELLMAN INC. AND SUBSIDIARIES -- (CONTINUED)

### **NOTE K -- EARNINGS PER SHARE**

The following table sets forth the computation of basic and diluted earnings (loss) per share (E.P.S.):

		1999	-	L998	-	1997
Numerator for basic and diluted E.P.S.: Net income (loss) Denominator:	\$	6,439,000	\$(7	,132,000)	\$25	,597,000
Denominator for basic E.P.S.: Weighted-average shares outstanding Effect of dilutive securities:		16,198,885	16	,267,804	16	,214,718
Employee stock options		28,420				194,189
Performance restricted stock						18,680
Special restricted stock		52,286 				
Diluted potential common shares		80,706				214,750
Denominator for diluted E.P.S.: Adjusted weighted-average shares outstanding		16,279,591	16,	,267,804	16	,429,468
	==	=======	====	======	====	======
Basic E.P.S	\$	0.40		(0.44)		1.58
Diluted E.P.S	\$	0.40	\$	(0.44)		

Under SFAS No. 128, "Earnings per Share," no potential common shares shall be included in the computation of any diluted per-share amount when a loss from continuing operations exists. Accordingly, dilutive securities totaling approximately 157,000 shares have been excluded from the 1998 diluted E.P.S. calculation.

Options to purchase Common Stock with exercise prices in excess of the average share price totaling 680,348 at December 31, 1999, 374,350 at December 31, 1998, and 130,500 at December 31, 1997 were excluded from the diluted E.P.S. calculations as their effect would have been anti-dilutive.

# BRUSH WELLMAN INC. AND SUBSIDIARIES -- (CONTINUED)

# NOTE L -- PENSIONS AND OTHER POSTRETIREMENT BENEFITS

	PENSION BENEFITS		OTHER BENEFITS		
	1999	1998	1999	1998	
CHANGE IN BENEFIT OBLIGATION		(DOLLARS IN			
Benefit obligation at end of prior year  Service cost  Interest cost  Amendments  Actuarial (gain) loss  Benefit payments	\$ 84,794 3,649 5,843 8 (11,624) (5,756)	\$ 71,668 3,063 5,154 5,025 3,552 (3,668)	\$ 31,330 362 2,114 (1,355) 1,339 (2,586)	\$ 30,775 345 2,122  274 (2,186)	
Benefit obligation at end of year	\$ 76,914	\$ 84,794	\$ 31,204	\$ 31,330	
CHANGE IN PLAN ASSETS Fair value of plan assets at end of prior year	\$110,037 10,140 24  (5,756)	\$ 96,372 17,316 17  (3,668)	\$ 2,586  (2,586)	\$ 2,186  (2,186)	
Fair value of plan assets at end of year	\$114,445	\$110,037			
Funded status	\$ 37,531 (32,465) 7,337 (1,894)	\$ 25,243 (19,989) 7,984 (2,601)	\$(31,204) (3,889) (1,355)	\$(31,330) (5,386) 	
Net amount recognized	\$ 10,509	\$ 10,637	\$(36,448)	\$(36,716)	
AMOUNTS RECOGNIZED IN THE CONSOLIDATED BALANCE SHEET CONSIST OF: Prepaid benefit cost	\$ 13,417 (2,908)	\$ 12,988 (2,351)	(36,448)	(36,716)	
Net amount recognized	\$ 10,509	\$ 10,637	\$(36,448)	\$(36,716)	
WEIGHTED-AVERAGE ASSUMPTIONS AS OF DECEMBER 31 Discount rate	8.00% 10.00% 5.00%	7.00% 9.00% 5.00%	8.00% N/A N/A	7.00% N/A N/A	

For measurement purposes, a 7.00 percent annual rate of increase in the per capita cost of covered health care benefits was assumed for 2000 decreasing gradually to 6.00 percent in 2002 and remaining at that level thereafter for pre-65 benefits and 6.00 percent for post-65 benefits for all years.

### **BRUSH WELLMAN INC. AND SUBSIDIARIES -- (CONTINUED)**

	PENSION BENEFITS			OTHER BENEFITS		
	1999	1998	1997	1999	1998	1997
		(D	OLLARS IN T	HOUSANDS)		
COMPONENTS OF NET PERIODIC BENEFIT COST						
Service cost	\$ 3,649	\$ 3,063	\$ 2,434	\$ 362	\$ 345	\$ 312
Interest cost	5,842	5,154	4,916	2,114	2,122	2,174
Expected return on plan assets	(9,288)	(7,589)	(7,082)			
Amortization of prior service						
cost	613	340	258			
Amortization of initial net						
(asset) obligation	(707)	(707)	(707)			
Recognized net actuarial (gain)						
loss		3	2	(159)	(215)	(230)
Net periodic benefit cost	\$ 109	\$ 264	\$ (179)	\$2,317	\$2,252	\$2,256
	======	======	======	=====	=====	=====

The Company revised the expected return on asset assumption used in calculating the annual expense for its various domestic pension plans in accordance with SFAS No. 87, "Employers' Accounting for Pensions". The assumed expected rate of return was increased to 10.0% from 9.0% with the impact being accounted for as a change in estimate. The Company believes that this change is a more accurate representation of the expected performance of the plans' assets. The change resulted in an increase to net income of \$613,000 and an increase to diluted earnings per share of \$0.04 in 1999.

The projected benefit obligation, accumulated benefit obligation, and fair value of plan assets for the pension plans with accumulated benefit obligations in excess of plan assets were \$1,463,000, \$1,068,000, and \$0, respectively, as of December 31, 1999, and \$1,275,000, \$852,000, and \$0, respectively, as of December 31, 1998.

Assumed health care cost trend rates have a significant effect on the amounts reported for the health care plans. A one-percentage-point change in assumed health care cost trend rates would have the following effects:

	I-PERCENTAGE	I-PERCENTAGE
	POINT	POINT
	INCREASE	DECREASE
	(DOLLARS IN	THOUSANDS)
Effect on total of service and interest cost components	\$ 109	\$ (101)
Effect on postretirement benefit obligation	1,482	(1,304)

The Company also has accrued unfunded retirement arrangements for certain directors. At December 31, 1999, the projected benefit obligation was \$213,000 (\$239,000 in 1998). A corresponding accumulated benefit obligation of \$213,000 (\$239,000 in 1998) has been recognized as a liability in the balance sheet and is included in retirement and post-employment benefits. Certain foreign subsidiaries have funded and accrued unfunded retirement arrangements which are not material to the consolidated financial statements.

The Company also sponsors a defined contribution plan available to substantially all U. S. employees. Company contributions to the plan are based on matching a percentage of employee savings up to a specified savings level. The Company's contributions were \$2,358,000 in 1999, \$2,291,000 in 1998, and \$2,207,000 in 1997.

### **BRUSH WELLMAN INC. AND SUBSIDIARIES -- (CONTINUED)**

#### NOTE M -- CONTINGENCIES AND COMMITMENTS

### **CBD CLAIMS**

The Company is a defendant in proceedings in various state and federal courts by plaintiffs alleging that they have contracted chronic beryllium disease ("CBD") or related ailments as a result of exposure to beryllium. Plaintiffs in CBD cases seek recovery under theories of intentional tort and various other legal theories and seek compensatory and punitive damages, in many cases of an unspecified sum. Spouses, if any, claim loss of consortium. Additional CBD claims may arise.

Management believes the Company has substantial defenses in these cases and intends to contest the suits vigorously. Employee cases, in which plaintiffs have a high burden of proof, have historically involved relatively small losses to the Company. Third party plaintiffs (typically employees of our customers) face a lower burden of proof than do our employees, but these cases are generally covered by insurance.

Although it is not possible to predict the outcome of the litigation pending against the Company and its subsidiaries, the Company provides for costs related to these matters when a loss is probable and the amount is reasonably estimable. Litigation is subject to many uncertainties, and it is possible that some of these actions could be decided unfavorably in amounts exceeding the Company's reserves. An unfavorable outcome or settlement of a pending CBD case or additional adverse media coverage could encourage the commencement of additional similar litigation. The Company is unable to estimate its potential exposure to unasserted claims.

While the Company is unable to predict the outcome of the current or future CBD proceedings, based upon currently known facts and assuming collectibility of insurance the Company does not believe that resolution of these proceedings will have a material adverse effect on the financial condition or cash flow of the Company. However, the Company's results of operations could be materially affected by unfavorable results in one or more of these cases.

### ENVIRONMENTAL PROCEEDINGS

The Company has an active program for environmental compliance which includes the identification of environmental projects and estimating their impact on the Company's financial performance and available resources. Environmental expenditures that relate to current operations, such as wastewater treatment and control of airborne emissions, are either expensed or capitalized as appropriate. The Company records reserves for the probable costs for environmental remediation projects. The Company's environmental engineers perform routine on-going analyses of the remediation sites. Accruals are based upon their analyses and are established at either the best estimate or at the low end of the estimated range of costs. The accruals are revised for the results of on-going studies and for differences between actual and projected costs. The accruals are also affected by rulings and negotiations with regulatory agencies. The timing of payments often lags the accrual as environmental projects typically require a number of years to complete. The Company established undiscounted reserves of \$8,316,000 at December 31, 1999 (\$7,858,000 at December 31, 1998). The current portion of the reserve totaled \$610,000 at December 31, 1999 and is included in the Consolidated Balance Sheet as Other liabilities and accrued items while the remaining \$7,706,000 of the reserve at December 31, 1999 is considered long-term and is included under Other long-term liabilities. The Company expects that any sum it may be required to pay in connection with environmental matters is not reasonably likely to exceed the reserve by amounts that would be material to the financial statements. However, the Company cannot predict the effect of compliance with environmental requirements with respect to unknown environmental matters on the Company's financial position or the possible effect of compliance with environmental requirements imposed in the future.

Environmental expenses approximated \$0.9 million, \$3.2 million and \$1.7 million in 1999, 1998 and 1997, respectively. As further described in Note I, 1998 expenses included \$2.1 million for the VAP recorded as part

### BRUSH WELLMAN INC. AND SUBSIDIARIES -- (CONTINUED)

of the special charge. The majority of the accrual in all three years is associated with RCRA projects, SWMU closures and other projects at the Company's Elmore, Ohio facility. The Company also adopted SOP 96-01 during the periods presented which led to an increase in environmental expenses of approximately \$0.3 million to cover direct project management costs not included in previous cost estimates.

The Company has outstanding letters of credit totaling \$1,370,000 related to workers' compensation and environmental remediation issues. The letters expire in 2000.

### **OTHER**

The Company is subject to various other legal or other proceedings that relate to the ordinary course of its business. The Company believes that the resolution of these other legal or other proceedings, individually or in the aggregate, will not have a material adverse impact upon the Company's consolidated financial statements.

### BRUSH WELLMAN INC. AND SUBSIDIARIES -- (CONTINUED)

### NOTE N -- SEGMENT REPORTING AND GEOGRAPHIC INFORMATION

Selected financial data by business segment as prescribed by SFAS No. 131, "Disclosures about Segments of an Enterprise and Related Information", for 1999, 1998, and 1997 are as follows:

	METAL SYSTEMS	MICRO- TOTAL ELECTRONICS SEGMENTS		ALL OTHER	TOTAL
		(DOLLAR	S IN THOUSAN	DS)	
1999		, -		,	
Revenues from external					
customers	\$306,118	\$140,566	\$446,684	\$ 9,023	\$455,707
Intersegment revenues	276	1,560	1,836		1,836
Depreciation, depletion, and	40 405		45 540	44 005	
amortization	13,437	2,305	15,742	11,295	27,037
Profit (loss) before	16 200	11 200	27 600	(17 100)	10 550
interest and taxes Assets	16,300 280,868	11,380 61,298	27,680 342,166	(17,122) 82,325	10,558 424,491
Expenditures for long-lived	200,000	01,290	342,100	02,325	424,491
assets	11,410	3,437	14,847	2,199	17,046
1998					
Revenues from external					
customers	\$295,705	\$106,347	\$402,052	\$ 7,840	\$409,892
Intersegment revenues	482	1,145	1,627		1,627
Special Charge				22,572	22,572
Depreciation, depletion, and amortization	15 716	2 202	17,999	6,590	24,589
Profit (loss) before	15,716	2,283	17,999	6,590	24,509
interest and taxes	27,897	2,120	30,017	(40,330)	(10,313)
Assets	262,847	51,052	313,899	89,791	403,690
Expenditures for long-lived					
assets	21,054	7,432	28,486	8,679	37,165
1997					
Revenues from external					
customers	\$302,403	\$124,418	\$426,821	\$ 6,980	\$433,801
Intersegment revenues	1,616	773	2,389		2,389
Depreciation, depletion, and					
amortization	12,870	2,543	15,413	3,916	19,329
Profit (loss) before					
interest and taxes	51,024	2,860	53,884	(17,860)	36,024
Assets	253,462	48,000	301,462	82,390	383,852
Expenditures for long-lived					
assets	42,302	2,502	44,804	17,877	62,681

The loss before interest and taxes in All Other includes corporate and certain unallocated costs, non-operating items of other income/expense, and the revenues and related costs from one manufacturing facility. Segments are evaluated using earnings before interest and taxes. In 1998, the Company recorded a special charge of \$22.6 million (see Note I to the Consolidated Financial Statements). While this charge included write-downs of assets of the Metal Systems and Microelectronics Groups, it was not recorded against their profits as management evaluates the profitability of those groups exclusive of the special charge. Assets shown in All Other include cash, computer hardware and software, deferred taxes, capitalized interest, and the operating assets for one manufacturing facility. Inventories for Metal Systems and Microelectronics are shown

### BRUSH WELLMAN INC. AND SUBSIDIARIES -- (CONTINUED)

at their FIFO values with the LIFO reserve included under the All Other column. Intersegment revenues are eliminated in consolidation. The revenues from external customer totals are presented net of the intersegment revenues.

The Company's sales from U.S. operations to external customers, including exports, were \$368,494,000 in 1999, \$327,927,000 in 1998, and \$345,100,000 in 1997. Revenues attributed to countries based upon the location of customers and long-lived assets deployed by the Company by country are as follows:

		1998	
REVENUES		ARS IN THOUS	
United States	\$318,188	\$280,830	\$291,378
All Other	137,519	129,062	142,423
Total	\$455,707	\$409,892	\$433,801
LONG-LIVED ASSETS			
United States	\$149,048	\$158,186	\$167,494
All Other	6,641	6,283	6,128
Total	\$155,689	\$164,469	\$173,622

No individual country, other than the United States, or customer accounted for 10% or more of the Company's revenues for the years presented. Revenues from outside the U.S. are primarily from Europe and Asia.

### NOTE O -- QUARTERLY DATA (UNAUDITED)

1999				
FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER	TOTAL
(DOL)	LARS IN THOU	SANDS EXCEPT	PER SHARE DA	ATA)
\$113,168	\$108,666	\$113,794	\$120,079	\$455,707
24,099	25,158	18,813	23,864	91,934
21.3%	23.2%	16.5%	19.9%	20.2%
2,486	3,234	(552)	1,271	6,439
0.15	0.20	(0.03)	0.08	0.40
0.15	0.20	(0.03)	0.08	0.40
0.12	0.12	0.12	0.12	0.48
18.19	18.69	18.25	16.81	
13.94	13.44	14.69	13.13	
	QUARTER (DOL) \$113,168 24,099 21.3% 2,486  0.15 0.15 0.12 18.19	QUARTER QUARTER	FIRST SECOND THIRD QUARTER QUARTER QUARTER	FIRST SECOND THIRD FOURTH QUARTER QUARTER QUARTER  (DOLLARS IN THOUSANDS EXCEPT PER SHARE DE STANDS) \$113,168 \$108,666 \$113,794 \$120,079 24,099 25,158 18,813 23,864 21.3% 23.2% 16.5% 19.9% 2,486 3,234 (552) 1,271  0.15 0.20 (0.03) 0.08 0.15 0.20 (0.03) 0.08 0.15 0.20 (0.03) 0.08 0.15 0.20 (0.03) 0.08 0.15 0.20 (0.03) 0.08 10.12 0.12 0.12 0.12 18.19 18.69 18.25 16.81

# BRUSH WELLMAN INC. AND SUBSIDIARIES -- (CONTINUED)

1998

	FIRST	SECOND	THIRD	FOURTH	
	QUARTER	QUARTER	QUARTER	QUARTER	TOTAL
	( DOLL)	ARS IN THOUS	ANDS EXCEPT	PER SHARE	DATA)
Net sales	, -	\$102,992	\$96,240	\$96,479	,
Gross profit	28,029	17,516	19,416	19.758	84,719
Percent of sales	24.5%	17.0%	20.2%	20.5%	20.7%
Net income (loss)	6,162	(13,084)	98	(308)	(7,132)
Earnings (loss) per share of common stock:					
Basic	0.38	(0.80)	0.01	(0.02)	(0.44)
Diluted	0.37	(0.80)	0.01	(0.02)	(0.44)
Dividends per share of common stock	0.12	0.12	0.12	0.12	0.48
Stock price range					
High	28.50	29.69	22.75	17.44	
Low	22.94	19.13	13.81	11.94	

Included in the second quarter 1998 is \$15.9 million of the \$16.5 million after tax special charge.

# SELECTED FINANCIAL DATA

# **BRUSH WELLMAN INC. AND SUBSIDIARIES** (DOLLARS IN THOUSANDS EXCEPT PER SHARE AMOUNTS)

		1999		1998		1997		1996		1995
FOR THE YEAR										
Net sales	Ś	455,707	Ś	409,892	Ś	433,801	Ś	376,279	\$	369,618
Cost of sales	~	363,773	~	325,173	~	324,463	Υ.	271,149	Υ.	268,732
Gross profit		91,934		84,719		109,338		105,130		100,886
Operating profit (loss)		10,558		(10,313)		36,024		34,305		29,086
Interest expense		4,173		1,249		553		1,128		1,653
Income (loss) before income taxes		6,385		(11,562)		35,471		33,177		27,433
Income taxes (benefit)		(54)		(4,430)		9,874		8,686		6,744
Net income (loss)		6,439		(7,132)		25,597		24,491		20,689
Earnings per share of common stock:		0,133		( , , 152 )		23,337		21,171		20,000
Basic net income (loss)		0.40		(0.44)		1.58		1.55		1.28
Diluted net income (loss)		0.40		(0.44)		1.56		1.53		1.27
Dividends per share of common stock		0.48		0.48		0.46		0.42		0.36
Depreciation and amortization		27,037		24,589		19,329		22,954		20,911
Capital expenditures		16,758		36,732		53,155		26,825		24,244
Mine development expenditures		288		433		9,526		3,663		787
YEAR-END POSITION		200		155		5,520		3,003		707
Working capital	\$	124,831	\$	100,992	\$	100,599	\$	128,172	\$	125,156
Ratio of current assets to current										
liabilities		2.3 TO 1		2.1 to 1		2.3 to 1		2.9 to 1		2.9 to 1
Property and equipment:										
At cost	\$	421,293	\$	421,467	\$	463,689	\$	404,127	\$	374,367
Cost less depreciation and impairment		155,689		164,469		173,622		130,220		121,194
Total assets		424,491		403,690		383,852		355,779		331,853
Other long-term liabilities		49,922		49,955		48,025		47,271		45,445
Long-term debt		42,305		32,105		17,905		18,860		16,996
Shareholders' equity		220,638		221,811		236,813		219,257		200,302
Book value per share:										
Basic	\$	13.62	\$	13.63	\$	14.60	\$	13.84	\$	12.40
Diluted		13.55		13.50		14.41		13.72		12.30
Average number of shares of stock										
outstanding:										
Basic	16	,198,885	16	,267,804	16	,214,718	15	,846,358	16	,159,508
Diluted	16	,279,591	16	,267,804	16	,429,468	15	,980,481	16	,289,795
Shareholders of record		2,330		2,313		2,329		2,407		2,351
Number of employees		2,257		2,187		2,160		1,926		1,856

A special charge reduced net income by \$16.5 million in 1998.

### EXHIBIT (4h)

### FOURTH AMENDMENT TO AMENDED AND RESTATED CREDIT AGREEMENT

#### THIS FOURTH AMENDMENT TO AMENDED AND RESTATED CREDIT

AGREEMENT, dated as of September 30, 1999 ("Amendment"), by and among Brush Wellman Inc., an Ohio corporation ("Borrower"), the banks that are parties to this Amendment (the "Banks"), and National City Bank, as agent for the Banks (in that capacity, "NCB-Agent"),

### WITNESSETH THAT:

WHEREAS, Borrower, the Banks and NCB-Agent entered into an Amended and Restated Credit Agreement, dated as of December 13, 1994, as amended by a First Amendment to Amended and Restated Credit Agreement dated December 30, 1996, by a Second Amendment to Amended and Restated Credit Agreement dated September 2, 1997 and by a Third Amendment to Amended and Restated Credit Agreement dated January 26, 1999 (together with all Exhibits and Schedules thereto, the "Credit Agreement"), under which the Banks, subject to certain conditions, agreed to lend to Borrower up to \$55,000,000 from time to time in accordance with the terms thereof; and

WHEREAS, the parties desire to amend the Credit Agreement as set forth herein;

NOW, THEREFORE, in consideration of the premises and the mutual covenants and agreements contained herein, the parties hereto agree as follows:

1. Effect of Amendment; Definitions.

The Credit Agreement shall be and hereby is amended as provided in Section 2 hereof. Except as expressly amended in Section 2 hereof, the Credit Agreement shall continue in full force and effect in accordance with its respective provisions on the date hereof. As used in the Credit Agreement, the terms "Credit Agreement", "Agreement", "this Agreement", "herein", "hereinafter", "hereof", and words of similar import shall, unless the context otherwise requires, mean the Credit Agreement as amended and modified by this Amendment.

- 2. Amendments.
- (A) Subsection 2A.01 of the Credit Agreement shall be amended by deleting the same and substituting in lieu thereof the following:

"2A.01 AMOUNTS. The aggregate amount of the Subject Commitments shall be fifty five million dollars (\$55,000,000), but that amount may be reduced from time to time pursuant to subsection 2A.03 and the Subject Commitments may be terminated pursuant to Section 5B. The amount of each Bank's Subject Commitment (subject to such reduction or termination), and the proportion (expressed as a percentage) that it bears to all of the Subject Commitments, is set forth opposite the Bank's name below, to-wit:

\$15,000,000	27.275%	National City Bank
\$10,000,000	18.18%	Fifth Third Bank, Northeastern Ohio
\$15,000,000	27.275%	Bank One, Michigan
\$ 5,000,000	9.09%	Firstar Bank, N.A.
\$10,000,000	18.18%	Harris Trust and Savings Bank
\$55,000,000		Total"

(B) Subsection 2A.04(b) of the Credit Agreement shall be amended by deleting the table in the definition of "Applicable Rate" in the first paragraph therein and substituting the following in lieu thereof:

If the Ratio of the Companies' Funded	
Indebtedness to the Companies' EBITDA is:	The Applicable Rate is:
Less than 4.25 to 1.00, but great	ter
than or equal to 4.00 to 1.00	0.45%
-	
Less than 4.00 to 1.00, but great	ter
than or equal to 3.50 to 1.00	0.375%
Less than 3.50 to 1.00, but great	ter
than or equal to 3.00 to 1.00	0.30%
chair of equal to 3.00 to 1.00	0.300
Less than 3.00 to 1.00	0.25%
1055 CHan 5.00 CO 1.00	0.250

(From October 1, 1999, until changed hereunder in accordance with the following provisions, the Applicable Rate will be 0.45% per annum.)"

(C) Subsection 2B.09(a) of the Credit Agreement shall be amended by deleting the table in the definition of "Applicable Margin" in the first paragraph therein and substituting the following in lieu thereof:

If the Ratio of the Companies' Funded	
Indebtedness to the Companies' EBITDA is:	The Applicable Margin is:
Less than 4.25 to 1.00, but greater than or equal to 4.00 to 1.00	1.375%
Less than 4.00 to 1.00, but greater than or equal to 3.50 to 1.00	1.125%
	_,,
Less than 3.50 to 1.00, but greater	
than or equal to 3.00 to 1.00	1.00%
Less than 3.00 to 1.00, but greater	
than or equal to 2.50 to 1.00	0.75%
Less than 2.50 to 1.00	0.50%

(From October 1, 1999, until changed hereunder in accordance with the following provisions, the Applicable Rate will be 1.375% per annum.)"

(D) Subsection 3B.02 of the Credit Agreement shall be amended by deleting the same and substituting in lieu thereof the following:

"3B.02 LEVERAGE. Borrower will not suffer or permit the Companies' Funded Indebtedness at any time to exceed an amount equal to the Leverage Multiplier (as

hereinafter defined) times the Companies' EBITDA for the four consecutive fiscal quarters most recently ended, all as determined on a consolidated basis. As used herein, "Leverage Multiplier" means (i) from April 1, 1999, to September 30, 1999, inclusive, 4.25, (ii) from October 1, 1999, to December 31, 1999, inclusive, 4.00, (iii) from January 1, 2000, to March 31, 2000, inclusive, 3.75, (iv) from April 1, 2000, to June 30, 2000, inclusive, 3.50, (v) from July 1, 2000, to December 31, 2000, inclusive, 3.25, and (vi) on and after January 1, 2001, 3.00."

- (E) Subsection 3D.01(iv) of the Credit Agreement shall be amended by deleting the same and substituting in lieu thereof the following:
- "(iv) any guaranty by Borrower of indebtedness of any Company otherwise permitted by this Agreement and any guaranty by Borrower or any Company of any obligations of any other Company that deals in precious metals under any consignment arrangement that is permitted under Subsection 3D.03(a),"
- (F) Subsection 3D.03(a) of the Credit Agreement shall be amended by deleting the same and substituting in lieu thereof the following:
- "(a) lease any property as lessee or acquire or hold any property subject to any land contract, inventory consignment (except for any precious metals inventory of a Company that deals in precious metals that is subject to any consignment arrangement or consignment arrangements that are approved by NCB-Agent, which approval will not be unreasonably withheld, and only so long as the aggregate value, in United States Dollars, of the precious metals subject thereto does not exceed an amount greater than \$75,000,000 at any time), or other title retention contract,"
- (G) Exhibits E to the Credit Agreement is hereby deleted and Exhibit E attached to this Amendment is substituted in lieu thereof.
- 3. Substitution of Banks. Borrower and each of the Banks that are parties to this Amendment hereby acknowledge and agree that by virtue of the execution and delivery of this Amendment, together with appropriate assignment agreements, and as of the date hereof (a) one-half of the Subject Commitment of Bank One, NA has been assigned to Bank One, Michigan, formerly known as NBD Bank, and one-half has been assigned to Firstar Bank, N.A., and (b) Firstar Bank, N.A., will become a Bank that is a party to the Credit Agreement as provided in Subsection 2A.01.
- 4. Representations and Warranties.
- (A) Borrower hereby represents and warrants to the Banks and NCB-Agent that all representations and warranties set forth in the Credit Agreement, as amended hereby, are true and correct in all material respects, and that this Amendment and the Subject Notes delivered in connection with this Amendment have been executed and delivered by a duly authorized officer of Borrower and constitute the legal, valid and binding obligation of Borrower, enforceable against Borrower in accordance with their respective terms.
- (B) The execution, delivery and performance by Borrower of this Amendment and its performance of the Credit Agreement and the Subject Notes delivered in connection with this Amendment have been authorized by all requisite corporate action and will

not (1) violate (a) any order of any court, or any rule, regulation or order of any other agency of government, (b) the Articles of Incorporation, the Code of Regulations or any other instrument of corporate governance of Borrower, or (c) any provision of any indenture, agreement or other instrument to which Borrower is a party, or by which Borrower or any of its properties or assets are or may be bound; (2) be in conflict with, result in a breach of or constitute, alone or with due notice or lapse of time or both, a default under any indenture, agreement or other instrument referred to in (1)(c) above; or (3) result in the creation or imposition of any lien, charge or encumbrance of any nature whatsoever.

### 5. Miscellaneous.

- (A) This Amendment shall be construed in accordance with and governed by the laws of the State of Ohio, without reference to principles of conflict of laws. Borrower agrees to pay to the Banks at the time this Amendment is executed and delivered by the Banks an amendment fee in an aggregate amount equal to \$55,000, to be allocated pro rata among the Banks on the basis of their respective Subject Commitments immediately after this Amendment is executed and delivered by the Banks, and to pay on demand all costs and expenses of the Banks and NCB-Agent, including reasonable attorneys' fees and expenses, in connection with the preparation, execution and delivery of this Amendment.
- (B) The execution, delivery and performance by the Banks and NCB-Agent of this Amendment and the Subject Notes executed in connection herewith shall not constitute, or be deemed to be or construed as, a waiver of any right, power or remedy of the Banks or NCB-Agent, or a waiver of any provision of the Credit Agreement. None of the provisions of this Amendment shall constitute, or be deemed to be or construed as, a waiver of any "Default under this Agreement" or any "Event of Default," as those terms are defined in the Credit Agreement.
- (C) This Amendment may be executed in two or more counterparts, each of which shall constitute an original, but all of which, when taken together, shall constitute but one instrument.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

Address:

17876 St. Clair Avenue Cleveland, Ohio 44110

Fax: (216) 481-2523

BRUSH WELLMAN INC.

NATIONAL CITY BANK,

By: /s/ Michael C. Hasychak Title: Treasurer and Secretary

Address: Deliveries:

> Large Corporate Division 1900 East Ninth Street Cleveland, Ohio 44114-3484

Fax: (216) 222-0003

By: /s/ Janice E. Focke Title: Vice President

for itself and as Agent

Mail:

Large Corporate Division, Loc. #2077

P.O. Box 5756

Cleveland, Ohio 44101

FIFTH THIRD BANK, NORTHEASTERN OHIO

1404 East Ninth Street

Cleveland, Ohio 44114 Fax: (216) 274-5507 By: /s/ James P. Byrnes

Title: Vice President

BANK ONE, MICHIGAN

FIRSTAR BANK, N.A.

Address:

Address:

611 Woodward

Detroit, Michigan 48226 Fax: (313) 225-1212 By: /s/ Patrick F. Dunphy

Title: Vice President

Address:

P.O. Box 755 (111/10W)

Chicago, Illinois 60690-0755 Fax: (312) 461-5225 HARRIS TRUST AND SAVINGS BANK

By: /s/ Thad D. Rasche Title: Vice President

Address:

....

1350 Euclid Avenue, ML 4432 Cleveland, Ohio 44115 Fax: (216) 623-9280

By: /s/ John D. Barrett
Title: Senior Vice President

### **EXHIBIT E**

### COMPLIANCE REPORT

To: National City Bank

Amended and Restated Credit Agreement dated as of December 13, Subject: 1994, as amended, with the Banks that are parties thereto and

National City Bank as agent (the "Credit Agreement")

# **Greetings:**

	osection 3A.01 of the subject he best of my knowledge an		d in my capacity a	as the chief fina	ncial officer of	Brush Wellman l	nc., I hereby
	al statements of the Compani nancial condition as of d then ending,						
	under the Credit Agreement this letter] and	exists *[except for tho	se which, togethe	er with our inten	tions in respect	t thereof, are set f	orth in
(c) as indicated	by the calculations below,	the Companies are *[no	ot] in full complia	ance with subsec	ctions 3B.01 th	rough 3B.04, both	h inclusive.
[* - In (b) and (	(c), delete the bracketed lang	guage if inapplicable.]					
3B.01 The actu	ual amount of the Companies	s' Tangible Net Worth	at the Closing Da	te is equal to or	is greater than	the required amo	unt.
\$190,731,000 plus \$	40% of \$						
annual earning	s accumulated from Decemb	per 31, 1997 to the end	of the preceding	fiscal year (see	Section 3B.01)		
sum \$	required amount \$	actual Tangible	e Net Worth				

3B.02 The Funded Indebtedness of the Companies does not exceed an amount equal to the Leverage Multiplier times the Companies' EBITDA for the four consecutive fiscal quarters most recently ended -- the Leverage Multiplier being (i) from April 1, 1999, to September 30, 1999,

January 1, 2001, 3.00.				
	divided by	\$ \$ \$ \$	Funded Indebtedness EBITDA EBIT Depreciation Amortization	
	quotient			
3B.03 [Intentionally Omitted]	]			
3B.04 The actual Interest Cove to the quotient of the sum of ite			o 1:00) required, the Interest Coverag	ge being a factor equa
	plus (b) \$	Net Income interest expense ( capitalized i	including any required	
	plus (c) \$ sum (d) \$	income taxes total		
quotient (e) Actua	al Interest Coverage(d	)/(b)		
	nuary 1, 2001 the Fund		m factor permitted, namely, 0.5 through the quotient of Funded Indebtedness	
\$ Funded Indebtedn Indebtedness	ness divided by \$	Funded Indebtedness plus	s Tangible Net Worth quotient	Actual Funded
		BRUSH WELLMAN INC	C.	
	By Tit	v: tle:		
		Page 7		

inclusive, 4.25, (ii) from October 1, 1999, to December 31, 1999, inclusive, 4.00, (iii) from January 1, 2000, to March 31, 2000, inclusive, 3.75, (iv) from April 1, 2000, to June 30, 2000, inclusive, 3.50, (v) from July 1, 2000, to December 31, 2000, inclusive, 3.25, and (vi) on and after

### Exhibit 10ff

### **EMPLOYMENT AGREEMENT**

This EMPLOYMENT AGREEMENT (this "Agreement"), entered into this day of, by BRUSH WELLMAN INC., an Ohio corporation (the "Company"), and (the "Executive").
WITNESSETH:
WHEREAS, the Board of Directors of the Company (the "Board") has made the following determinations:
A. The Executive is a senior executive of the Company and is expected to make major contributions to the growth, profitability, and financial strength of the Company;

- B. The Board wishes to assure the Company's continuity of management;
- C. The Board recognizes that, as is the case with many publicly held companies, the possibility of a Change in Control (as defined in Section IV) may exist and wishes to ensure that the Company's senior executives are not practically disabled from discharging their duties upon the occurrence of any actual or threatened Change in Control; and
- D. This Agreement shall not alter materially the remuneration and benefits which the Executive could reasonably expect to receive from the Company in the absence of a Change in Control and, accordingly, although effective as of the date hereof, this Agreement shall become operative only upon the occurrence of a Change in Control during the Term (as defined in Section II).

NOW, THEREFORE, the Company and the Executive agree as follows:

- I. Employment; Position and Responsibilities
- (A) Subject to the terms and conditions of this Agreement, upon the occurrence of a Change in Control during the Term, the Company, if the Executive is then an employee of the Company, shall continue the Executive in its employ (and the Executive shall remain in the employ of the Company) for the Window Period (as defined in Section III), whether or not the Term ends before the end of the Window Period, in the position which he holds at the time of such Change in Control (or such enhanced position to which he may from time to time thereafter be elected by the Board) and with substantially the same duties, responsibilities, and reporting relationships as he has at the time of such Change in Control (or such enhanced duties, responsibilities, and reporting relationships as the Board may from time to time thereafter designate in writing or to which the Company and the Executive may from time to time thereafter agree in writing).
- (B) During the Window Period, the Executive shall, while he is an employee of the Company, devote substantially all of his time during normal business hours to the business and affairs of the Company, but nothing in this Agreement shall preclude the Executive during the Window Period from devoting reasonable periods of time during normal business hours to serving as a director, trustee, or member of any committee of any organization or business so long as such activity would not constitute Competitive Activity (as defined in Section XIII) if conducted by the Executive after any termination of the Executive's employment with the Company pursuant to Section VII (A).

II. Effectiveness of this Agreement; Term

In determining whether the Window Period commences, this Agreement shall be effective immediately upon execution and shall continue in force for a period of five years (the "Term") from the date of such execution; provided, however, that on the date five years after this Agreement is executed, and on each second anniversary of such date thereafter, the Term shall be automatically extended for two additional years unless either the Company or the Executive has given written notice to the other, as provided in Section X, prior to the date which is two years before the date on which the Term would end if not automatically extended.

III. Operation of this Agreement; Window Period

This Agreement shall become operative only upon the occurrence of a Change in Control and then only if such Change in Control occurs prior to the end of the Term while the Executive is an employee of the Company. If the Executive is employed by the Company at the time of any such Change in Control, this Agreement shall remain operative for a period (the "Window Period") of four years after the occurrence of such Change in Control or, if shorter, until the Executive reaches age 65.

IV. Definition of Change in Control

A "Change in Control" of the Company shall have occurred if at any time during the Term any of the following events shall occur:

- (A) The Board at any time shall fail to include a majority of Directors who are either "Original Directors" or "Approved Directors". An Original Director is a Director who is serving on February 20, 1989. An Approved Director is a Director who, after such date, is elected, or is nominated for election by the shareholders, by a vote of at least two-thirds of the Original Directors and the previously elected Approved Directors, if any.
- (B) Any person (as the term "person" is defined in Section 1701.01(G) of the Ohio Revised Code) shall have made a "control share acquisition" (as the term "control share

acquisition" is defined in Section 1701.01(Z) of the Ohio Revised Code) of shares of the Company without having first complied with Section 1701.831 of the Ohio Revised Code (dealing with control share acquisitions).

- (C) The Board shall at any time during the Term determine in the good faith exercise of its judgment that (1) any particular actual or proposed accumulation of shares of the Company, tender offer for shares of the Company, merger, consolidation, sale of assets, proxy contest, or other transaction or event or series of transactions or events will, or is likely to, if carried out, result in a Change in Control falling within Section IV (A) or IV(B) and (2) it is in the best interests of the Company and its shareholders, and will serve the intended purposes of this Agreement, if this Agreement shall thereupon become immediately operative.
- V. Compensation While Employed During Window Period
- (A) No compensation shall be payable under this Section V unless and until there shall have been a Change in Control while the Executive is an employee of the Company during the Term (at which time the Window Period shall begin).
- (B) If such a Change in Control so occurs (at which time the Window Period shall begin), the Executive, while an employee of the Company, will be entitled to receive compensation, for the Window Period, in the following forms, rates, and amounts:
- (1) Base Salary: salary payments (semi-monthly in arrears) at an annual rate which will be the highest of:
- (a) the annual rate in effect at the time of the Change in Control;
- (b) the annual rate in effect at any time during the 24 months prior to the Change in Control; or
- (c) the annual rate approved by the Board from time to time after the Change in Control.

- (2) Annual Bonus: annual bonus amounts (payable on February 10, or, if February 10 is not a business day in any year, then on the business day next preceding such February 10) with respect to the previous calendar year equal to the higher of:
- (a) the highest annual bonus awarded to the Executive in the 36 months prior to the Change in Control; or
- (b) the highest annual bonus approved by the Board from time to time after the Change in Control.
- (3) Benefit Plans The Executive shall continue, as if there had been no Change in Control, to participate, throughout the Window Period, in all benefit plans, policies, or arrangements of the Company in which the Executive participates immediately prior to the Change in Control, including, without limitation, any incentive, retirement income, savings or thrift, stock option, stock purchase, stock appreciation, stock grant, group insurance (health, life, and others, if any), disability, salary continuation, and other employee benefit plans, policies, or arrangements, or any successor plans, policies, or arrangements that may thereafter be adopted by the Company and provide the Executive at least the same reward opportunities that were provided to him immediately prior to the Change in Control as if there had been no Change in Control.
- (4) Executive Perquisites The Executive shall continue to receive, throughout the Window Period, all executive perquisites (including, without limitation, a Company automobile, club dues, and secretarial services) provided by the Company immediately prior to the Change in Control and any improvements therein which are thereafter approved by the Board from time to time.
- (5) Nothing in this Agreement shall preclude improvement of the plans, policies, or arrangements contemplated by the foregoing paragraphs (1)-(4) of this Section V(B), but no such improvements shall in any way diminish any other obligation of the Company under this Agreement. If the Company shall change or terminate any such plans,

policies, or arrangements during the Window Period, it shall nevertheless continue to provide to the Executive other arrangements which are substantially comparable thereto.

- VI. Termination While Employed During Window Period
- (A) If a Change in Control shall occur while the Executive is an employee of the Company during the Term (and the Window Period therefore commences), the Executive shall be entitled to the compensation provided in Section VII if his employment with the Company is thereafter terminated during the Window Period unless such termination results from the Executive's
- (1) death;
- (2) disability (on the terms described in Section VI(B));
- (3) retirement (as defined in Section VI(C));
- (4) termination by the Company for Cause (as defined in Section VI(D); or
- (5) decision to terminate his employment other than for Good Reason (as defined in Section VI(E)).
- (B) If, as a result of the Executive's incapacity due to physical or mental illness, the Executive shall qualify for benefits under the long-term disability plan, policy, or arrangement (if any) of the Company in effect at the time when the Change in Control occurs and shall have been absent from his duties with the Company on a full-time basis during the Window Period for a continuous period of one year, then the Company may terminate the Executive's employment for disability without the Executive being entitled to the compensation provided in Section VII.
- (C) "Retirement" means the attainment by the Executive of age 65 or his earlier voluntary retirement in accordance with any applicable retirement plan of the Company. Voluntary retirement for this purpose does not include any retirement decision made by the

Executive as a consequence of a termination by the Executive of his employment for Good Reason.

- (D) "Cause" means commission by the Executive of an act which constitutes a felony.
- (E) The Executive may terminate his employment for Good Reason during the Window Period and, if he does so, he shall be entitled to the compensation provided in Section VII. "Good Reason" shall mean any of the following:
- (1) any reduction in the Executive's base salary provided in Section V(B)(1) or his annual bonus provided in Section V(B)(2);
- (2) any significant reduction in the Executive's benefits provided in Section V(B)(3) or his perquisites provided in Section V(B)(4);
- (3) any significant reduction in the Executive's title, status, position, responsibilities, duties, or reporting relationships as herein provided;
- (4) any determination made by the Executive in good faith that, as a consequence of the circumstances giving rise to a Change in Control or resulting therefrom, he is unable to carry out the responsibilities, duties, or reporting relationships associated with his title, status, or position as herein provided;
- (5) the Company shall require the Executive to have as his principal location of work any location which is in excess of 50 miles from the Executive's principal residence as of the date immediately prior to the Change in Control; or
- (6) any failure of any successor of or to the Company following a Change in Control to comply with Section IX(A).
- VII. Compensation Upon Termination During Window Period
- (A) If the Executive's employment by the Company is terminated during the Window Period:

- (1) by the Company other than by reason of death, disability, or Cause, or
- (2) by the Executive for Good Reason,

then the Company shall pay to the Executive, within the time specified in Section VII(D), a lump sum in cash equal to the present value (determined as provided in Section VII(B)) of his base salary and annual bonus at the rates provided in Sections V(B)(1) and V(B)(2), respectively, for the remainder of the Window Period.

- (B) In determining present value for purposes of Section VII(A), there shall be applied a discount factor equal to the coupon rate on general full-faith-and-credit obligations of the U.S. Treasury having a maturity of five years and issued on the date of such termination (or, if no such obligations are issued on that date, then on such obligations issued on the most recent day prior to that date); provided, however, that if the Executive should die on or after the date of such termination but before full payment is made to him pursuant to Section VII(D), such payment shall be made to such person(s) as the Executive shall have designated in a writing filed with the Secretary of the Company or, if he shall not have filed such a designation, then to his executor or administrator within ten days after appointment of the same.
- (C) To secure, fund, or otherwise assure to the maximum practicable extent the payment to be made by the Company to the Executive pursuant to Sections VII(A) and VII(B), the Company will enter into a trust agreement in substantially the form attached hereto as Exhibit A. Should a Change in Control occur during the Term while the Executive is an employee of the Company, the Company shall, at or prior to the time of such Change in Control, cause there to be on deposit with the trustee under such trust agreement an amount of funds equal to one-twelfth of the sum of the amounts referred to in Section V(B)(1) and Section V(B)(2) (disregarding the application of the discount factor provided in Section VII(B)) multiplied by the lesser of 48 or the number of months (rounded to the next higher number) between the date of such Change in Control and the date the Executive reaches age 65. Should the Executive's

employment by the Company be terminated (i) for any reason prior to the occurrence of a Change in Control or (ii) by reason by death, disability (on the terms described in Section VI(B)), retirement, by the Company for Cause, or by the Executive's decision to terminate it other than for Good Reason after the occurrence of a Change in Control, the Executive will consent to the revocation of the trust under the trust agreement and the payment to the Company of all the assets then held in such trust.

- (D) The compensation provided for in Sections VII(A) and VII(B) shall be paid not later than the 40th day following the date of any such termination of employment pursuant to Section VII(A).
- (E) The Company shall arrange to provide the Executive, following the date of any termination of employment of the type described in Section VII(A), for the remainder of the Window Period, with continued coverage and participation in the benefit plans, policies, arrangements, and perquisites referred to in Sections V(B)(3) and V(B)(4) as if there had been no such termination of employment (or with such improved coverage and participation, if any, as may be implemented during the Window Period), except that participation will not continue in any stock option, stock purchase, stock appreciation, or stock grant plans and except that no benefits shall accrue for any period after such termination of employment pursuant to any benefit plan qualified under

Section 401(a) of the Internal Revenue Code of 1986, as amended (the "Code"), or any supplemental retirement benefit plan created for the benefit of the Executive subsequent to the date of this Agreement (the "Supplemental Retirement Benefit Plan") by reason of any provision included in this Agreement. For purposes of applying the immediately preceding sentence with respect to any benefit plan, policy, or arrangement the level of benefits under which depends in whole or in part on years of service, the Executive shall be treated as having continued in the employment of the Company for the remainder of the Window Period. To the extent that the Executive's coverage or participation in any such plan, policy, or arrangement is terminated by reason of the Executive's no longer being an

employee of the Company during the Window Period, the Company shall (i) pay from time to time to the Executive cash in amounts equal to what would have been provided pursuant to such plan, policy, or arrangement at any such time had the Executive's coverage or participation not been terminated and as if the Executive's employment with the Company continued for the remainder of the Window Period or (ii) arrange, with the Executive's prior written consent, to provide him with coverage and participation in a substantially similar plan, policy, or arrangement. If, under any plan, policy, or arrangement in effect immediately prior to the Change in Control, the Executive would have been eligible for post-retirement health or medical benefits with respect to himself or others if his retirement had occurred on the last day of the Window Period, the Company shall provide him with post-retirement health or medical benefits that are substantially similar to those provided under such plan, policy, or arrangement (or with such improved benefits, if any, as may be implemented during the Window Period). In addition, the Company shall pay to the Executive, within the time specified in Section VII(D), a lump sum (calculated as provided in Section VII(B)) in cash equal to (i) the number of months (rounded to the next higher number) between the date of termination of the Executive's employment with the Company pursuant to Section VII(A) and the last day of the Window Period multiplied by (ii) one-twelfth of the annual benefit (expressed as a single life annuity commencing at age 65) that the Executive would have accrued under the Brush Wellman Inc. Pension Plan for Salaried Employees (the "Pension Plan") during the calendar year ending prior to the date of such termination of employment if the Pension Plan did not contain the limitations on benefits imposed by the Code, including, without limitation, Sections 415 and 401(a)(17) of the Code (the "Constructive Supplemental Amount"). The Company and the Executive intend that the benefits payable under this Section VII(E) shall not constitute a "supplemental retirement or other similar benefit" for purposes of the Supplemental Retirement Benefit Plan. The obligation of the Company to make any payments under this Section VII(E) constitutes the unsecured promise of the Company to make such payments from its general

assets, and the Executive shall have no interest in, or lien or prior claim upon, any property of the Company in connection therewith.

(F) If the compensation and other payments under this Section VII, either alone or together with other receipts of the Executive from the Company, would, after taking into account Section VIII, constitute a "parachute payment" (as defined in Section 280G of the Code), such compensation, other payments, and other receipts shall be reduced to the largest amount as will result in no portion of the such compensation, other payments, or other receipts being subject to the excise tax imposed by Section 4999 of the Code. The determination of any reduction under this Section VII(F) in such compensation, other payments, and other receipts (including the section of the specific types of such compensation, other payments, or other receipts to be reduced) shall be made by the Executive in good faith (and upon the advice of a nationally recognized expert in compensation matters engaged and paid for by the Executive) after consultation with the Company. The Executive shall deliver such determination to the Company by the 25th day following any termination of the Executive pursuant to Section VII (A). His duty to consult with the Company under this Section VII(F) shall expire on the 30th day following such termination. Such determination shall be conclusive and binding on the Company. The Company shall cooperate in good faith with the Executive in making such determination and in providing the necessary information for this purpose.

(G) The Company shall have no right of set-off or counterclaim in respect of any of its obligations to the Executive under this Agreement.

#### VIII. Mitigation

If the Executive's employment by the Company is terminated during the Window Period pursuant to Section VII(A), the Company shall acknowledge by written notice to the Executive that the Executive offered to continue employment with the Company in accordance with the terms of this Agreement but that such offer was rejected. Thereafter, the Executive shall, for a period of two years (or, if less, for the remainder of the Window Period), use reasonable efforts to mitigate damages by seeking other employment; provided, however, that the Executive shall not be required to accept a position (i) of less importance or of a substantially different character than the position he held immediately prior to the date of such termination, (ii) that would call upon him to engage in any Competitive Activity, or (iii) other than in a location within 50 miles of his principal residence immediately prior to the date of such termination. The Executive shall pay over to the Company 50% of all employment income earned and received by him from other employers pursuant to the foregoing during such two year (or lesser) period (up to the amount received by him from the Company pursuant to Section VII(A)), and any employee benefits received from such other employers during such period shall reduce pro tanto the Company's obligation to furnish benefits or perquisites pursuant to Section VII(E).

#### IX. Successors and Binding Agreement

(A) The Company shall require any successor (whether direct or indirect, by purchase, merger, consolidation, or otherwise) to all or substantially all of the business or assets of the Company by agreement in form and substance satisfactory to the Executive to assume and agree to perform this Agreement in the same manner and to the same extent the Company would be required to perform if no such succession had taken place. If, at any time during the Window Period following a Change in Control, there shall not be in full force and effect an agreement between any such successor and the Executive to the effect

contemplated by the preceding sentence, the absence of such agreement shall constitute a material breach of this Agreement by such successor and shall entitle the Executive to terminate his employment for Good Reason. This Agreement shall be binding upon and inure to the benefit of the Company and any successor of or to the Company, including, without limitation, any persons acquiring directly or indirectly all or substantially all of the assets of the Company whether by merger, consolidation, sale, or otherwise (and such successor shall thereafter be deemed the "Company" for the purpose of this Agreement), but shall not otherwise be assignable or delegable by the Company.

- (B) This Agreement shall inure to the benefit of and be enforceable by the Executive's personal or legal representatives, executors, administrators, assigns, heirs, distributees and legatees.
- (C) This Agreement is personal in nature and neither of the parties hereto shall, without the consent of the other, assign, transfer, or delegate this Agreement or any rights or obligations hereunder except as expressly provided in Section IX(A). Without limiting the generality of the forgoing, the Executive's right to receive payments hereunder shall not be assignable or transferable, whether by pledge, creation of a security interest, or otherwise, other than by a transfer by his will (or other testamentary instrument) or by the laws of descent and distribution and, in the event of any attempted assignment or transfer contrary to this Section IX(C), the Company shall have no liability to pay any amount so attempted to be assigned or transferred.

#### X. Notices

All communications provided for herein or pursuant hereto shall be in writing and shall be deemed to have been duly given when delivered:

If to the Company to:

Brush Wellman Inc.

17876 St. Clair Avenue

Cleveland, Ohio 44110

Attention: Secretary

#### If to the Executive to:

or to such other address as either party may have furnished to the other in writing in accordance herewith.

#### XI. Employment Rights

Nothing expressed or implied in this Agreement shall create any right or duty on the part of the Company or the Executive to have the Executive remain in the employment of the Company prior to a Change in Control; provided, however, that any termination of employment of the Executive following the commencement of any discussions with a third party that ultimately result in a Change in Control shall (unless such termination is wholly unrelated to such discussions) be deemed to be a termination by the Executive for Good Reason after a Change in Control.

#### XII. Withholding of Taxes

The Company may withhold from any amounts payable under this Agreement all federal, state, city, or other taxes as shall be required to be withheld pursuant to any law or governmental regulation or ruling.

#### XIII. Competitive Activity

### Following the Executive's termination of employment pursuant to

Section VII(A) and for the duration of the Window Period, if the Company shall have complied and be complying with this Agreement, the Executive shall not engage in any Competitive Activity. The term "Competitive Activity" means the Executive's participation, without the written consent of an officer of the Company, in the management of any business enterprise if such enterprise engages in substantial and direct competition with the Company. Competitive Activity shall not include the mere ownership of securities in any enterprise and exercise of rights appurtenant thereto.

#### XIV. Legal Fees and Expenses

The Company shall pay and be solely responsible for any and all attorneys' and related fees and expenses incurred by the Executive as a result of (A) the Company's failure to perform this Agreement or any provision hereof; (B) the Company, any shareholder of the Company, or any other person contesting the validity or enforceability of this Agreement or any provision hereof; or (C) the Company, any shareholder of the Company, or any other person contesting the performance by the Executive of his obligations under this Agreement. Performance of the Company's obligations under this Section XIV shall be secured by one or more policies of insurance or as the Board may otherwise determine.

XV. Supersession

If the Executive has heretofore entered into an Employment Agreement dated July 1, 1983 with the Company, this Agreement shall supersede such Employment Agreement, which Employment Agreement is hereby cancelled with neither party thereunder having any liability to the other.

#### XVI. Governing Law

The validity, interpretation, construction, and performance of this Agreement shall be governed by the internal substantive laws of the State of Ohio, disregarding principle of conflicts of law and the like.

#### XVII. Miscellaneous

No provision of this Agreement may be modified, waived, or discharged unless such modification, waiver or, discharge is agreed to in a writing signed by the Executive and the Company. No waiver by either party hereto at any time of any breach by the other party hereto or compliance with any condition or provision of this Agreement to be performed by such other party shall be deemed a waiver of similar or dissimilar provisions or conditions at the same or at any prior or subsequent time. No agreements or representations, oral or otherwise, express or implied, with respect to the subject matter hereof have been made by either party which are not set forth expressly in this Agreement, except as set forth in the letter dated April 4, 1997 from Gordon D. Harnett to the Executive with respect to the terms of his initial employment by the Company; provided, however, that there shall be no duplication of payments made under Article VII of this Agreement with the severance payment provided for in such letter.

#### XVIII. Validity

The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement.

### XIX. Counterparts

This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original but all of which together will constitute one and the same instrument.

IN WITNESS WHEREOF, the parties have caused this Agreement to be duly executed and delivered on the date set forth above.

BRUSH WELLMAN INC.			
By:			
Title: Gordon D. Harnett President and CEO			
THE EXECUTIVE			
17			

# EXHIBIT (10gg)

# BRUSH WELLMAN INC.

# EXECUTIVE DEFERRED COMPENSATION PLAN

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# BRUSH WELLMAN INC. EXECUTIVE DEFERRED COMPENSATION PLAN

#### **ARTICLE 1**

#### ESTABLISHMENT OF THE PLAN

Brush Wellman Inc., an Ohio corporation, hereby adopts the BRUSH WELLMAN INC. EXECUTIVE DEFERRED COMPENSATION PLAN ("Plan") for the purpose of providing deferred compensation to employees who are eligible under the terms and conditions of the Plan, in accordance with the following terms and conditions.

The Plan is intended to be a non-qualified deferred compensation arrangement for a select group of management and highly compensated employees.

#### **ARTICLE 2**

#### **DEFINITIONS**

The following terms shall have the following meanings described in this Article unless the context clearly indicates another meaning. All references in the Plan to specific Articles or Sections shall refer to Articles or Sections of the Plan unless otherwise stated.

- 2.1 Account means the record established for each Participant in accordance with Section 5.1.
- 2.2 Board means the Board of Directors of Brush Wellman Inc.
- 2.3 Code means the Internal Revenue Code of 1986, as amended.
- 2.4 Company means Brush Wellman Inc., and any corporation in a controlled group of corporations (under Code Section 414(b)) of which Brush Wellman Inc. is a member, which, with the authorization of the Board adopts the Plan for the benefit of its employees pursuant to resolution of its board of directors.
- 2.5 Compensation means a Participant's taxable cash compensation (reportable on Form W-2) for the Plan Year or scheduled pay period, but only to the extent that such compensation exceeds the limit imposed on compensation taken into account under the Brush Wellman Inc. Savings and Investment Plan by reason of Code Section 401(a)(17) as determined by the Plan Administrator.
- 2.6 Compensation Committee means the Organization and Compensation Committee of the Board or at any time that no such committee exists the Board.
- 2.7 Deferred Compensation means a Participant's Compensation allocated to the

Participant's Account in accordance with Section 4.1 of the Plan.

- 2.8 Election Agreement means the written agreement entered into by an Employee, which shall be irrevocable, pursuant to which the Employee becomes a Participant in the Plan and selects Deferred Compensation and the period over which such amounts and investment return thereon will be paid.
- 2.9 Employee means, with respect to each Company adopting the Plan, management and highly compensated employees.
- 2.10 Participant means an Employee or former Employee of the Company who has met the requirements for participation under Section 3.1 and who is or may become eligible to receive a benefit from the Plan or whose beneficiary may be eligible to receive a benefit from the Plan.
- 2.11 Plan means the Brush Wellman Inc. Executive Deferred Compensation Plan.
- 2.12 Plan Administrator means the administrator or administrative committee designated pursuant to Article 7.
- 2.13 Plan Year means the period beginning on January 1 and ending on December 31 of each year.
- 2.14 Trust means the trust that may be established pursuant to Article 8.
- 2.15 Valuation Date means the last business day of each calendar month.

#### ARTICLE 3

#### **PARTICIPATION**

- 3.1 Eligibility. An Employee shall be eligible to participate in the Plan if he or she is an Employee designated as eligible by the Compensation Committee. Individuals not specifically designated by the Compensation Committee are not eligible to participate in the Plan.
- 3.2 Participation. An Employee shall become a Participant as of the date he or she satisfies the eligibility requirements of Section 3.1 and completes all administrative forms required by the Plan Administrator. A Participant's participation in the Plan shall terminate upon termination of employment or upon such other events as determined by the Compensation Committee.

#### **ARTICLE 4**

#### **BENEFITS**

- 4.1 Deferred Compensation. Subject to any limitations established by the Compensation Committee or the Plan Administrator, a Participant may elect to have his or her Compensation deferred in any amount not to exceed the Participant's full Compensation less applicable tax withholding, and to have that amount credited to his or her Account as Deferred Compensation. Deferred Compensation shall be credited to a Participant's Account monthly. A Participant shall at all times have a fully vested interest in his or her Account.
- 4.2 Election Procedures. (a) An Employee who is eligible to become a Participant in the Plan must complete, sign and file an election form with the Plan Administrator no later than 30 days following the date on which such Employee first becomes eligible to participate in the Plan in order to become a Participant in the Plan Year in which the Employee first becomes eligible.
- (b) A Participant's Election Agreement shall be effective only as to Compensation payable with respect to services rendered by the Participant after the date the Election Agreement is completed, signed and filed with the Plan Administrator.
- (c) Each Participant shall specify on his or her Election Agreement the Compensation the Participant elects to defer each Plan Year and whether the Deferred Compensation plus investment return credited to such Deferred Compensation will be paid in a single lump sum or in not more than five annual installments upon termination of employment.
- (d) A Participant can change his or her Election Agreement and an eligible Employee who is not a Participant may become a Participant, as of any January 1 by completing, signing and filing an Election Agreement with the Plan Administrator not later than the preceding December 31. A Participant who does not complete a new Election Agreement for a Plan Year will be deemed to have elected not to have any Deferred Compensation for the Plan Year.

#### **ARTICLE 5**

#### **ACCOUNTS**

- 5.1 Participant Accounts. The Plan Administrator shall establish an Account in the name of each Participant for all amounts attributable to Deferred Compensation for each Plan Year for which the Participant has elected to defer Compensation. A Participant's Account shall be maintained by the Plan Administrator in accordance with the terms of this Plan until all of the Deferred Compensation and investment return to which a Participant is entitled has been distributed to a Participant or his or her beneficiary in accordance with the terms of the Plan. A Participant shall be fully vested in his or her Account at all times.
- 5.2 Investment Return. Each Account shall be deemed to bear an investment return as if invested in the manner elected by the Participant from a list of investment funds determined by

the Compensation Committee from the date of crediting of Deferred Compensation and income thereon through the date of complete distribution of the Account. The Company shall have no obligation to actually invest funds pursuant to a Participant's elections, and if the Company does invest funds, a Participant shall have no rights to any invested assets other than as a general unsecured creditor of the Company.

5.3 Valuation of Accounts. The value of an Account as of any Valuation Date shall equal the amounts previously credited to such Account less any payments debited to such Account plus the investment return deemed to be earned on such Account in accordance with Section 5.2 through the Valuation Date.

#### ARTICLE 6

#### **DISTRIBUTIONS**

- 6.1 Termination of Employment. Upon termination of employment for any reason other than death, a Participant's Account shall be distributed to the Participant in a single lump sum payment or in not more than five annual installments, as elected by the Participant on his or her Election Agreement for the Plan Year. Payment will be made or begin on the business day coinciding with or next following the sixtieth (60th) day after the Participant's termination of employment or as soon thereafter as is administratively practicable. Installment payments shall be calculated and recalculated annually by multiplying the balance credited to the Participant's Account (including any increase or decrease resulting from investment return) as of the most recent Valuation Date by a fraction, the numerator of which is one and the denominator of which is the remaining number of payments to be made to the Participant.
- 6.2 Death. If a Participant dies prior to termination of employment or complete distribution of his or her Account, the amounts credited to his or her Account will be distributed in the manner elected by the Participant on his or her Election Agreement to the beneficiary named by the Participant on a beneficiary designation form filed with the Company. Payment of a death benefit will begin on the business day coinciding with or next following the sixtieth

(60th) day after a Participant's death or as soon thereafter as is administratively practicable. The Participant may change the beneficiary designation at any time by signing and filing a new beneficiary designation form with the Plan Administrator. If for any reason no beneficiary is designated or no beneficiary survives the Participant, the beneficiary shall be the Participants estate. If the Participant designates a trust as beneficiary, the Plan Administrator shall determine the rights of the trustee without responsibility for determining the validity, existence or provisions of the trust. Further, neither the Plan Administrator nor the Company shall have responsibility for the application of sums paid to the trustee or for the discharge of the trust.

#### ARTICLE 7

#### **ADMINISTRATION**

- 7.1 Plan Administrator. The Company shall have the sole responsibility for the administration of the Plan and is designated as Plan Administrator.
- 7.2 Appointment of Administrative Committee. The Company may assign its duties as Plan Administrator to an Administrative Committee. The members of the Administrative Committee shall be selected by the Board.
- 7.3 Powers of Plan Administrator. The Plan Administrator shall have the full and exclusive power, discretion and authority to administer the Plan. The determinations and decisions of the Plan Administrator are final and binding on all persons. The Plan Administrator's powers shall include but shall not be limited to, the power to:
- (a) Maintain records pertaining to the Plan.
- (b) Interpret the terms and provisions of the Plan, and to construe ambiguities and correct omissions.
- (c) Establish procedures by which Participants may apply for benefits under the Plan and appeal a denial of benefits.
- (d) Determine the rights under the Plan of any Participant applying for or receiving benefits.
- (e) Administer the claims procedure provided in this Article.
- (f) Perform all acts necessary to meet the reporting and disclosure obligations imposed by the Employee Retirement Income Security Act of 1974 ("ERISA").
- (g) Delegate specific responsibilities for the operation and administration of the Plan to such employees or agents as it deems advisable and necessary.

In the exercise of its powers, the Plan Administrator shall be entitled to rely upon all tables, valuations, certificates and reports furnished by any accountant or consultant and upon opinions given by any legal counsel in each case duly selected by the Plan Administrator.

7.4 Limitation of Liability. The Plan Administrator, the Board (and its members), the Company, and its officers shall not be liable for any act or omission relating to their duties under the Plan, unless such act or omission is attributable to their own willful misconduct or lack of good faith.

- 7.5 Claims Procedures. (a) All claims under the Plan shall be directed to the attention of the Plan Administrator. Any Participant or beneficiary whose application for benefits or other claim under the Plan has been denied, in whole or in part, shall be given written notice of the denial by the Plan Administrator within sixty (60) days after the receipt of the claim. The notice shall explain that the Participant or beneficiary may request a review of the denial and the procedure for requesting review. The notice shall describe any additional information necessary to perfect the Participant's or beneficiary's claim and explain why such information is necessary. If a Participant or beneficiary does not receive a written response to a claim within sixty (60) days after receipt of the claim by the Plan Administrator, the claim will be deemed to be denied.
- (b) A Participant or beneficiary may make a written request to the Plan Administrator for a review of any denial of claims under this Plan. The request for review must be in writing and must be made within sixty (60) days after the mailing date of the notice of denial or the deemed denial. The request shall refer to the provisions of the Plan on which it is based and shall set forth the facts relied upon as justifying a reversal or modification of the determination being appealed.
- (c) A Participant or beneficiary who requests a review of denial of claims in accordance with this claims procedure may examine pertinent documents and submit pertinent issues and comments in writing. A Participant or beneficiary may have a duly authorized representative act on his or her behalf in exercising his or her right to request a review and any other rights granted by this claims procedure. The Plan Administrator shall provide a review of the decision denying the claim within sixty (60) days after receiving the written request for review. If a Participant or beneficiary does not receive a written response to a request for a review within the foregoing time limit, such request will be deemed to be denied. A decision by the Plan Administrator for review shall be final and binding on all persons.

#### **ARTICLE 8**

#### **MISCELLANEOUS**

- 8.1 Unfunded Plan. (a) The Plan shall be an unfunded plan maintained by the Company for the purpose of providing benefits for a select group of management or highly compensated employees. The Company is not required to set aside, earmark or entrust any fund or money with which to pay its obligations under this Plan or to invest in any particular investment vehicle and may change investments of Company assets at any time.
- (b) The Company may establish a Trust to hold property that may be used to pay benefits under the Plan. The Trust shall be intended to be a grantor trust, within the meaning of Section 671 of the Code, of which the Company is the grantor, and the Plan is to be construed in accordance with that intention. Notwithstanding any other provision of this Plan, the assets of the Trust will remain the property of the Company and will be subject to the claims of its creditors in the event of its bankruptcy or insolvency. No Participant or person claiming through a Participant will have any priority claim on the assets of the Trust or any security interest or other right superior to the rights of a general creditor of the Company.

- (c) All benefits under this Plan shall be paid by the Company from its general assets and/or the assets of the Trust, which assets shall, at all times, remain subject to the claims of the Company's creditors.
- (d) Neither Participants, their beneficiaries nor their legal representatives shall have any right, other than the right of an unsecured general creditor, against the Company in respect of any portion of a Participant's Account and shall have no right, title or interest, legal or equitable, in or to any asset of the Company or the Trust.
- 8.2 Spendthrift Provision. The Plan shall not in any manner be liable for or subject to the debts or liabilities of any Participant or beneficiary. No benefit or interest under the Plan is subject to assignment, alienation, pledge or encumbrance, whether voluntary or involuntary, and any purported or attempted assignment, alienation, pledge or encumbrance of benefits shall be void and will not be recognized by the Company.
- 8.3 Employment Rights. The existence of the Plan shall not grant a Participant any legal or equitable right to continue as an Employee nor affect the right of the Company to discharge a Participant.
- 8.4 Withholding of Taxes. To the extent required by applicable law, the Company will withhold from Compensation and/or Deferred Compensation and any payment hereunder all taxes required to be withheld for federal, state or local government purposes.
- 8.5 Amendment or Termination. Brush Wellman Inc. reserves the right to amend, modify, suspend or terminate the Plan at any time without prior notice by action of its Board; provided, however, that no such action may deprive a Participant of his rights to receive a benefit pursuant to the Plan with respect to Compensation elected to be deferred prior to such action, determined as though such benefit were subject to Section 411 of the Internal Revenue Code of 1986, as in effect on September 14, 1999. A Company affiliated with Brush Wellman Inc. which has adopted this Plan may terminate its participation in the Plan at any time by action of its board of directors.
- 8.6 No Fiduciary Relationship Created. Nothing contained in this Plan, and no action taken pursuant to the provisions of this Plan, shall create or be deemed to create a fiduciary relationship between the Company or Plan Administrator and any Participant, beneficiary or any other person.
- 8.7 Release. Any payment to any Participant or beneficiary in accordance with the provisions of this Plan shall, to the extent thereof, be in full satisfaction of all claims against the Plan Administrator, the Company and any of their officers, directors, shareholders, employees or agents.

- 8.8 No Warranty or Representation. The Company makes no warranty or representation regarding the effect of deferrals made or benefits paid under this Plan for any purpose.
- 8.9 Construction. Words used in the masculine shall apply to the feminine where applicable; and wherever the context of the Plan dictates, the plural shall be read as the singular and the singular as the plural.
- 8.10 Governing Law. To the extent that Ohio law is not preempted by ERISA, the provisions of the Plan shall be governed by the laws of the State of Ohio.

8.11 Counterparts. This Plan may be signed in any one or more counterparts each of which together shall constitute one instrument.

IN WITNESS WHEREOF, the Company has executed this Plan this \_\_\_\_\_ day of September, 1999, effective September 14, 1999.

#### **BRUSH WELLMAN INC.**

By:	 	
Name:		
Title:		
-		

### Exhibit 10hh

# TRUST AGREEMENT

**FOR** 

### BRUSH WELLMAN INC.

# EXECUTIVE DEFERRED COMPENSATION PLAN

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#### TRUST AGREEMENT FOR BRUSH WELLMAN INC. EXECUTIVE DEFERRED COMPENSATION PLAN

\_\_, 1999 by and between BRUSH WELLMAN INC., an Ohio corporation (the THIS AGREEMENT made this day of "Corporation") and FIFTH THIRD BANK (together with any successor designated in accordance with Section 12 of this Agreement, the "Trustee"), WITNESSETH: WHEREAS, the Corporation has adopted the Brush Wellman Inc. Executive Deferred Compensation Plan, (the "Plan"), a copy of which is attached as Exhibit A hereto; and WHEREAS, the Corporation has incurred or expects to incur liability under the terms of the Plan with respect to the individuals participating in the Plan; WHEREAS, the Corporation wishes to establish a trust (the "Trust") and to contribute to the Trust, assets that shall be held therein subject to the claims of the Corporation's creditors in the event of the Corporation's Insolvency, as herein defined, until paid to Plan Participants and their Beneficiaries in such manner and at such times as specified in the Plan; WHEREAS, it is the intention of the parties that this Trust shall constitute an unfunded arrangement and shall not affect the status of the Plan as unfunded for purposes of Title I of the Employee Retirement Income Security Act of 1974; and WHEREAS, it is the intention of the Corporation to make contributions to the Trust to provide itself with a source of funds to assist it in the meeting of its liabilities under the Plan; NOW, THEREFORE, the parties do hereby establish the Trust and agree that the Trust shall be comprised, held and disposed of as follows: **SECTION 1. DEFINITIONS** As used in this Agreement, the following words and phrases shall have the following meanings:

(b) "Board" shall mean the Board of Directors of the Corporation.
(c) "Change of Control" shall mean, with respect to the Corporation, that if subsequent to [, 1999] any of the following events shall occur:
(1) The Board at any time shall fail to include a majority of Directors who are either "Original Directors" or "Approved Directors". An Original Director is a Director who is serving on [, 1999]. An Approved Director is a Director, who after such date, is elected, or is nominated for election by the shareholders, by a vote of at least two-thirds of the Original Directors and the previously elected Approved Directors, if any.
(2) Any person (as the term "person" is defined in Section 1701.01(G) of the Ohio Revised Code) shall have made a "control share

(a) "Beneficiary" shall mean a "Beneficiary" as determined pursuant to the Plan, if the Participant (as hereinafter defined) is deceased, or a

- (2) Any person (as the term "person" is defined in Section 1701.01(G) of the Ohio Revised Code) shall have made a "control share acquisition" (as the term "control share acquisition" is defined in Section 1701.01(Z) of the Ohio Revised Code) of shares of the Corporation without having first complied with Section 1701.831 of the Ohio Revised Code (dealing with control share acquisitions).
- (3) The Board shall at any time determine in the good faith exercise of its judgment that (A) any particular actual or proposed accumulation of shares of the Corporation, tender offer for shares of the Corporation, merger, consolidation, sale of assets, proxy contest, or other transaction or event or series of transactions or events will, or is likely to, if carried out, result in a Change of Control falling within (1) above or (2) above, and (B) it is in the best interests of the Corporation and its shareholders, and will serve the intended purposes of this Agreement, if such transaction or event or series of transactions or events is deemed to be a Change of Control.
- (d) "Code" shall mean the Internal Revenue Code of 1986, as amended, or any successor provision thereto.
- (e) "Committee" shall mean the Committee and the Committee's delegate(s) pursuant to the Plan.

permitted assignee of a Participant as determined pursuant to the Plan.

- (f) "Insolvent" or "Insolvency" shall mean that the Corporation is unable to pay its debts as they become due or is subject to a pending proceeding as a debtor under the United States Bankruptcy Code, as now in force or hereafter amended.
- (g) "Participant" shall mean a "Participant" as defined in the Plan and for whom an account has been established pursuant to Section 3 of this Agreement.

(h) "Plan" shall mean the Brush Wellman Inc. Executive Deferred Compensation Plan, as the same shall be amended from time to time.

Any capitalized term used herein as a defined term that is not defined herein shall have the meaning set forth in the Plan.

#### SECTION 2. TRUST FUND.

- (a) The Corporation shall make an initial contribution to the Trust, which shall become principal of the Trust to be held, administered and disposed of by Trustee as provided in this Agreement.
- (b) The Trust hereby established shall be revocable by the Corporation prior to a Change of Control; it shall become irrevocable upon a Change of Control. The Trust hereby established shall be amended only as provided in Section 13 of this Agreement.
- (c) The Trust is intended to be a grantor trust, of which the Corporation is the grantor, within the meaning of subpart E, part I, subchapter J, chapter 1, subtitle A of the Code, and shall be construed accordingly.
- (d) The principal of the Trust, and any earnings thereon, shall be held in trust separate and apart from other funds of the Corporation and shall be used exclusively for the uses and purposes of Participants and Beneficiaries and general creditors as herein set forth. Participants and Beneficiaries shall have no preferred claim on or any beneficial ownership or security interest in any assets of the Trust. Any rights created under the Plan and this Agreement shall be mere unsecured contractual rights of Participants and their Beneficiaries against the Corporation. Any assets held by the Trust will be subject to the claims of the Corporation's general creditors under federal and state law in the event of Insolvency.
- (e) The Corporation, in its sole discretion, may at any time or from time to time make additional deposits to the Trust of cash or other property that is acceptable to the Trustee to augment the principal of any separate account hereunder to be held, administered and disposed of by Trustee as provided in this Agreement. Neither the Trustee nor any Participant or Beneficiary shall have any right to compel such additional deposits.

#### SECTION 3. SEPARATE ACCOUNTS.

The Trustee shall create and maintain one or more separate accounts in the name of each Participant named in Exhibit 3 attached hereto and made a part of this Agreement and any subsequent addition(s) to such Exhibit and shall allocate to such separate account(s) the cash or other property contributed in respect of such Participant as indicated in such Exhibit or addition to such Exhibit. Each such separate account shall be maintained and administered separately, and credited and debited, as herein provided, but all such separate accounts may be invested by the Trustee as a single trust fund.

#### SECTION 4. CHANGE OF CONTROL.

If a Change of Control occurs (i) the Corporation shall immediately deliver to the Trustee, with a copy to each Participant or Beneficiary, a written notice to that effect authorized by the Committee and signed by two officers of the Corporation, or (ii) a Participant or Beneficiary, may, with a copy to the Corporation, notify the Trustee in writing to that effect. The Trustee may conclusively rely on any such notification from the Corporation. If the Trustee receives such notification from a Participant or Beneficiary and not from the Corporation, the Trustee shall immediately notify the Corporation and the Board thereof. If the Corporation does not within fifteen (15) business days after receipt of such notification from the Trustee deliver to the Trustee written objection thereto, a Change of Control shall be deemed to have occurred for purposes of this Agreement; if the Trustee timely receives such written objection from the Corporation, the Trustee shall forthwith, in its sole discretion, determine whether a Change of Control has occurred, and if the Trustee determines that a Change of Control has occurred, a Change of Control shall be deemed to have occurred for purposes of this Agreement; and during the period in which the Trustee is determining whether a Change of Control has occurred, the Trustee shall administer this Agreement as though a Change of Control had occurred, except that the Trustee shall make no payments to Participants and Beneficiaries from the Trust other than as provided in Section 5(c) of this Agreement. The determination of the Trustee upon any such objection shall be final and binding for purposes of this Agreement. In making such determination, the Trustee may in its sole discretion consult with independent legal counsel and shall incur no liability for acting or refraining from acting in accordance with the advice of such counsel. Except as otherwise provided in this Section 4, the Trustee shall have no independent obligation to make a determination as to the occurrence of a Chang

#### SECTION 5. PAYMENTS TO PARTICIPANTS AND BENEFICIARIES.

(a) The Corporation shall provide the Trustee with a copy of each amendment to the Plan within a reasonable period after the adoption thereof. The Corporation shall maintain adequate records identifying its obligations to each Participant and Beneficiary under the Plan. At any time reasonably requested by the

Trustee after a Change of Control, the Corporation shall provide the Trustee with copies of such records.

- (b) After a Change of Control, and provided that the Corporation is not then Insolvent, upon receipt by the Trustee of both (i) a certificate signed by the Participant or Beneficiary, substantially in the form of Exhibit 5(b)(1) attached hereto and made a part of this Agreement, and (ii) an affidavit executed by the Participant or Beneficiary in the form of Exhibit 5(b)(2) attached hereto and made a part of this Agreement, the Trustee shall make a payment to the Participant or Beneficiary from the assets of his separate account(s) under the Trust in an amount equal to the lesser of the amount specified in such certificate or the amount of assets then held in his separate account(s) under the Trust. Upon receipt of an affidavit in the form of Exhibit 5(b)(2) attached hereto and made a part of this Agreement, the Trustee shall forthwith forward a copy of the affidavit to the Corporation. [Whenever the Trustee pays any amount to a Participant or Beneficiary pursuant to this Section 5(b) on a date later than the date on which the Corporation was obligated to pay the amount under the Plan, the Trustee shall also pay to the Participant or Beneficiary an additional amount, subject to the sufficiency of the assets of his separate account(s), as interest on the amount so paid. The interest shall be paid for the period from the date on which the Corporation was obligated to pay the amount through the date on which the Trustee pays the amount and shall be calculated at the rate borne by United States Treasury Bills of ninety (90) days maturity as determined from the Treasury auction immediately preceding the date of such payment.] The Trustee shall use its reasonable best efforts to make such payment within ten business days following satisfaction of the conditions for such payment under this Section 5(b), or, if later than ten business days after the satisfaction of the conditions for such payment under this Section 5(b), as soon as reasonably practicable.
- (c) Provided that the Corporation is not then Insolvent, upon receipt by the Trustee of a written direction from the Committee, the Trustee shall make a payment to the Participant of Beneficiary from the assets of his separate account(s) under the Trust in an amount equal to the lesser of the amount specified in such written direction or the amount of assets then held in his separate account(s) under the Trust. Such payment shall be by bank check or cashier's check and shall be transmitted to the Participant or Beneficiary together with a letter substantially in the applicable form of Exhibit 5(c) attached hereto and made a part of this Agreement signed by an officer of the Trustee. The Trustee shall use its reasonable best efforts to make such payment within ten business days following satisfaction of the conditions for such payment under this Section 5(c), or, if later than ten business days after the satisfaction of the conditions for such payment under this Section 5(c), as soon as reasonably practicable.
- (d) The Trustee shall, after consultation with the Committee, make such provision as it considers necessary or appropriate for the withholding of any federal, state, and local taxes that may be required to be withheld in connection with and/or from any payment under Section 5(b) of this Agreement. The Corporation shall make such provision as it considers necessary or appropriate for the withholding of any federal,

state, and local taxes that may be required to be withheld in connection with any payment under Section 5(c) of this Agreement, but the Committee may in the written notice to the Trustee directing payment instruct the Trustee to withhold such taxes and transmit such taxes to the appropriate authority.

- (e) If the amount of assets of his separate account(s) under the Trust is not sufficient to provide for full payment to the Participant or Beneficiary as specified in Section 5(b) of this Agreement or Section 5(c) of this Agreement, the Corporation shall make the balance of such payment as provided in the Plan and the Trustee shall have no obligation with respect thereto.
- (f) If any payment to the Participant or Beneficiary referred to in Section 5(b) of this Agreement or Section 5(c) of this Agreement exceeds that to which the Participant or Beneficiary is entitled pursuant to the Plan, the Participant or Beneficiary shall be obligated to repay the Corporation with respect to the excess, but the Trustee shall have no obligation with respect to the excess.
- (g) Receipt by a Participant or Beneficiary of any payment or distribution from the Trust shall be deemed to constitute agreement by the Participant or Beneficiary to the terms and conditions required for the receipt of benefits pursuant to the Plan.
- (h) Notwithstanding any other provision herein to the contrary, in no circumstances shall the Trustee be liable to any Participant or Beneficiary for any insufficiency of the Trust assets (or his separate account(s)) to discharge payments hereunder, rather, the liability for all such payments shall be and remain the ultimate responsibility of the Corporation, and if the assets of any Participant's separate account(s) under the Trust are insufficient at any time to make payments to such Participant or Beneficiary in accordance with the provisions of the Plan, the Corporation shall make the balance of any such payment as it falls due.

#### SECTION 6. TRUSTEE RESPONSIBILITY REGARDING PAYMENTS TO PARTICIPANTS WHEN CORPORATION INSOLVENT.

- (a) At all times during the continuance of this Trust, the principal and income of the Trust shall be subject to claims of general creditors of the Corporation under federal and state law as set forth below.
- (1) The Board and the highest ranking officer of the Corporation shall have the duty to inform the Trustee in writing of the Corporation's Insolvency. If a person claiming to be a creditor of the Corporation alleges in writing to the Trustee that the Corporation has become Insolvent, the Trustee shall determine whether the Corporation is Insolvent and, pending such determination, the Trustee shall discontinue payment of benefits to Participants or their Beneficiaries.

- (2) Unless the Trustee has actual knowledge of the Corporation's Insolvency, or has received notice from the Corporation or a person claiming to be a creditor alleging that the Corporation is Insolvent, the Trustee shall have no duty to inquire whether the Corporation is Insolvent. The Trustee may in all events rely on such evidence concerning the Corporation's solvency as may be furnished to the Trustee and that provides the Trustee with a reasonable basis for making a determination concerning the Corporation's solvency.
- (3) If at any time the Trustee has determined that the Corporation is Insolvent, the Trustee shall discontinue payments to Participants or their Beneficiaries and shall hold the assets of the Trust for the benefit of the Corporation's general creditors. Nothing in this Agreement shall in any way diminish any rights of Participants or their Beneficiaries to pursue their rights as general creditors of the Corporation with respect to benefits due under the Plan or otherwise.
- (4) The Trustee shall resume the payment of benefits to Participants or their Beneficiaries in accordance with Section 5 of this Agreement only after the Trustee has determined that the Corporation is not Insolvent (or is no longer Insolvent).
- (b) If the Trustee discontinues payments of benefits from the Trust pursuant to Section 6(a) of this Agreement and subsequently resumes such payments, subject to the sufficiency of each Participant's separate account(s) to make required payments to such Participant or Beneficiary, the first payment following such discontinuance shall include the aggregate amount of all payments which would have been made to the Participant or Beneficiary in accordance with the provisions of the Plan, during the period of such discontinuance, less the aggregate amount of payments made to the Participant or Beneficiary by the Corporation in lieu of the payments provided for hereunder during any such period of discontinuance.

#### SECTION 7. PAYMENTS TO CORPORATION.

- (a) Except as provided in Sections 7(b), 7(c), 13(a), or 13(b) hereof, the Corporation shall have no right or power to direct the Trustee to pay any assets of the Trust to the Corporation.
- (b) Upon the written direction of the Committee with respect to the separate account(s) of a Participant or Beneficiary and delivered to the Trustee prior to a Change of Control, the Trustee shall pay to the Corporation all or such portion of any assets of such separate account(s) of the Participant or Beneficiary then in the Trust as may be specified in such direction.
- (c) Within ten business days after payment, if any, in full by the Corporation or by the Trustee to the Participant or Beneficiary pursuant to Section 5 of this Agreement, of all benefits to which the Participant or Beneficiary is entitled under the Plan, as determined pursuant to this Section
- 7(c), the Trustee shall distribute to the Corporation all of the assets, if any, of the separate account(s) of the Participant or Beneficiary held by the Trust. The Trustee shall make such payment to the Corporation only upon receipt by the Trustee of a written request from the Corporation authorized by the Committee and signed by two officers of the Corporation and after it has made a determination pursuant to this Section 7(c) that the Participant or Beneficiary has received payment in full of all amounts to which he is or may be entitled (or is no longer and will not become entitled to any amounts) under the Plan. Together with any request for payment with respect to a Participant or Beneficiary, the Corporation shall provide the Trustee with copies of the Corporation's books and records identifying the Corporation's obligations to the Participant or Beneficiary under the Plan, and such other evidence of the Corporation's satisfaction of the Corporation's obligations under the Plan as the Corporation shall desire. Upon receipt of the Corporation's request, the Trustee shall notify the Participant or Beneficiary that it is considering the Corporation's request and shall provide the Participant or Beneficiary with a copy of all documents and information submitted by the Corporation. The Participant or Beneficiary may object to the Corporation's request in writing and may submit any information or arguments to support his position within thirty (30) days of such notice or such extended time as the Trustee may, upon application, grant. If the Participant or Beneficiary objects, the Trustee shall so advise the Corporation and afford the Corporation a reasonable opportunity to respond. If there is a disputed request, the Trustee shall determine in its sole discretion whether the Participant or Beneficiary is or may be entitled to any amounts under the Plan. In making its determination, the Trustee shall adhere to the following: The Corporation shall have the burden of proving its claim by clear and convincing evidence, and the Trustee shall resolve any reasonable doubt in favor of the Participant or Beneficiary. In making its decision, the Trustee shall disregard any amendment or modification to the Plan or an Option Agreement adopted on or after a Change of Control that purports to decrease benefits with respect to the Participant or Beneficiary. The decision of the Trustee upon any such request shall be final and binding for purposes of this Agreement. Notwithstanding the foregoing, if the Trustee

determines in its sole discretion that, in the event of any disputed request as described in this Section 7(c), it is unable to determine the proper party to which assets are payable, the Trustee may thereupon apply to a court of competent jurisdiction, including by way of an interpleader action, for a judicial determination of the proper payee. The Trustee shall have no liability with respect to any such action, other than for the payment of assets in accordance with such judicial determination.

#### SECTION 8. ADDITIONAL POWERS, DUTIES, AND IMMUNITIES OF THE TRUSTEE.

- (a) In the administration of the Trust, the Trustee shall, subject to Section 8(b), have the following additional powers, duties, and immunities:
- (i) The Trust assets, including any income accumulated and added to principal, shall be invested by the Trustee with the purpose of the preservation of principal and liquidity. The rate of return on investments, while important, shall not take precedence over safety of principal. Notwithstanding the two immediately preceding sentences, the Trust assets may be invested by the Trustee in any Designated Property, and the Corporation or the Committee shall provide timely written notice to the Trustee of the property that is from time to time Designated Property under the Plan. The Trustee shall have the powers:
- (A) to receive, hold, manage, improve, repair, sell, lease, pledge, mortgage, exchange or otherwise dispose of all or any part of the Trust assets upon such terms, prices and conditions as it deems advisable;
- (B) to invest and reinvest the Trust assets in any property or undivided interest therein, wherever located, including bonds, notes (secured or unsecured), stock of corporations, time and savings deposits (including savings deposits and certificates of deposit in the Trustee or its affiliates if such deposits bear a reasonable rate of interest), real estate or any other interest therein, shares in investment trusts and stock in mutual funds and investment companies (including investment trusts, mutual funds, and investment companies to which the Trustee or an affiliate thereof may serve as investment advisor, sponsor, underwriter, manager, administrator, distributor, custodian, transfer agent, or in any other capacity for which it may receive a fee), and annuities and other policies of insurance, upon such terms, prices and conditions as it deems advisable, without being restricted by any statute or rule of law governing the investments in which a trustee may invest funds held by it, and without regard to the proportion which an investment may bear to the entire amount of the Trust assets or any separate account under the Trust;

- (C) with the prior, written approval of the Committee, to borrow money upon such terms and conditions and for such purposes as it deems advisable;
- (D) to vote in person or by proxy the stocks, securities, or other investments which it holds as Trustee; to execute and deliver proxies, powers of attorney, and other agreements which it deems advisable; to exchange the securities of any corporation or issuing authority for other securities upon such terms and conditions as it deems advisable; to consent to or oppose any corporate action; to pay all assessments and subscriptions as it deems advisable; to exercise options and, in general, to exercise in respect of all stocks, securities, or other investments which it holds as Trustee all rights, powers and privileges as might be exercised by an individual in his own right;
- (E) to execute such instruments, deeds, leases, mortgages, contracts, agreements, assignments, transfers, bills of sale, and other documents of any kind, as it deems advisable; and
- (F) to retain uninvested cash in the Trust either in its banking department or elsewhere to meet contemplated payments or transfers from the Trust, or temporarily awaiting investment, without liability for interest thereon.
- (ii) The Trustee is empowered to register securities, and to take and hold title to other property, in the name of the Trustee or in the name of a nominee without disclosing the Trust. Securities also may be held in bearer form and may be held in bulk with certificates of the same class and issuer which are assets of other fiduciary accounts. The Trustee shall be responsible for any wrongful acts of any nominee of the Trustee.
- (iii) The Trustee is empowered to employ such agents and attorneys as the Trustee shall deem advisable and to determine and pay the reasonable compensation of any agents and attorneys so employed, without diminution of the compensation of the Trustee. Unless paid by the Corporation, such compensation shall be charged against the separate accounts from time to time held under the Trust in such proportions as the Trustee shall deem equitable. The Trustee shall not be liable for any neglect, omission, or wrong doing of any such agent or attorney if reasonable care is exercised in the selection of such agent or attorney.
- (iv) The Trustee is empowered to take all actions necessary or advisable in order to collect any insurance, annuity, or other benefits or payments of which the Trustee is the designated beneficiary. The Trustee further is empowered to enforce, release, compromise, and settle any and all claims in favor of or against the Trust or

any separate account under the Trust, whether or not such claims are in litigation, upon such terms and conditions as the Trustee shall deem advisable.

- (v) The Trustee is authorized to segregate and hold separately any part or all of the Trust assets from time to time allocable to the separate accounts then existing or to hold any part or all of the Trust assets as a single commingled fund and allocate undivided interests in the same among the separate accounts then existing.
- (vi) The Trustee is empowered to pay out of the Trust, as a general charge thereon, or in the sole discretion of the Trustee as a charge to one or more affected separate accounts any and all taxes of whatsoever nature assessed against the Trust; provided, however, that, if the Corporation shall notify the Trustee in writing that in the opinion of its counsel any such tax is not lawfully assessed, the Trustee, if so requested by the Corporation, shall contest the validity of such tax in any manner deemed appropriate by the Corporation or its counsel. The word "taxes", as used herein, shall be deemed to include any interest or penalties assessed in respect to such taxes. Unless the Trustee first shall have been indemnified to its satisfaction by the Corporation, however, the Trustee shall not be required to contest the validity of any tax, to institute, maintain, or defend against any other action or proceeding, or to incur any other expense in connection with the Trust, except to the extent that the Trust is sufficient therefor.
- (vii) The Trustee shall have all other powers and duties conferred or imposed on trustees by law which are consistent with the provisions of this instrument and such further powers as may be required to give effect to the powers and duties of the Trustee expressly set forth in this instrument.
- (viii) Notwithstanding anything to the contrary in this Section or any other provision of this Agreement or any power granted to the Trustee pursuant to law: The Trustee shall have no power to invest any of the Trust assets in securities or obligations of the Corporation or any subsidiary or affiliate of the Corporation nor any power that could give this Trust the objective of carrying on a business and dividing the gains therefrom, within the meaning of
- Section 301.7701-2 of the Procedure and Administrative Regulations promulgated pursuant to the Code. If an insurance policy or annuity contract is held as an asset of the Trust, the Trustee shall have no power to name a beneficiary of such policy or contract other than the Trust, to assign the policy or contract
- (as distinct from conversion of the policy or contract to a different form) other than to a successor Trustee, or to loan to any person the proceeds of any borrowing against or withdrawal from such policy or contract.
- (ix) The Trustee shall not be required to furnish bond, nor shall the Trustee be required to obtain leave or confirmation from any court before exercising any of the powers or performing any of the duties of the Trustee; but the Trustee at all times shall be obligated to act in good faith and to exercise reasonable prudence.

- (x) No person dealing with the Trustee shall be obligated to inquire into the Trustee's powers with respect to any action which the Trustee may propose to take, and the receipt of the Trustee for any payment made or property transferred to the Trustee by any person shall constitute a complete acquittance to such person for such payment or property and its proper application.
- (b) During periods prior to a Change of Control, the Committee shall have the following powers and authority with respect to the assets of the Participant's or Beneficiary's separate account(s) held in the Trust:
- (i) The Committee may direct the Trustee to hold the assets held in the Trust as one fund in accordance with and for the purposes hereinafter set forth in this Section 8(b) or from time to time to divide and redivide the assets held in the Trust, for such purposes, into two or more funds, of which the first shall be designated as "Investment Fund A" and each other shall be designated by another letter of the alphabet. For the purposes of this Section
- 8(b), the Trust or, in the event of its division as provided in this Section
- 8(b), each separate Investment Fund, shall hereinafter be referred to as an "Investment Fund". At the time of the first division and of each redivision, the Committee may specify the part of the assets held in the Trust to be allocated to each Investment Fund, and the Committee may reallocate all or any part of such assets between or among the Investment Funds from time to time. For all purposes other than investment purposes (except as otherwise provided in this Agreement with respect to separate accounts), such assets shall be held as a single trust fund.
- (ii) From time to time the Committee may designate one or more persons, or may designate itself, to act as an "investment manager" hereunder by written notice to the Trustee, with authority to direct the investment and reinvestment of the Investment Fund or Funds specified in such notice. The Trustee may rely upon any such appointment continuing in effect until it receives written notice from the Committee of its revocation. The Committee may by similar notice modify or terminate such designation and authority from time to time. So long as, and to the extent that, any such designation is in effect, the Trustee shall invest, reinvest and retain the Investment Fund assigned to an investment manager and the Trustee shall exercise its investment powers set forth in Section 8(a) (including the powers set forth in clause (i)(D) thereof) in accordance with instructions received from such investment manager. So long as, and to the extent that, no such designation is in effect, the Trustee shall invest, reinvest and retain, in accordance with its sole discretion, that part of the Trust not assigned to an investment manager.
- (iii) All instructions from an investment manager to the Trustee shall be in writing (or by telephone or telegraph confirmed in writing) and shall be complete in all reasonable and necessary details. The Trustee shall have no duty to question such instructions nor shall the Trustee incur any liability for following such instructions. The Corporation shall indemnify the Trustee, in its capacity as Trustee and

individually, from any liability with regard to following such instructions from an investment manager or from refraining from action in the absence of instructions from a duly appointed investment manager. Without limitation of the generality of the preceding sentence, the Corporation shall indemnify and hold the Trustee harmless against any and all actions, claims, demands, liabilities, losses, damages or expenses of whatsoever kind and nature, whenever arising, which arise from the failure by the Trustee to pay for property purchased by the investment manager for the Trust, by reason of the insufficiency of funds in the Trust.

- (iv) The Committee shall regularly notify each designated investment manager of the anticipated requirements for disbursements from the Investment Fund or Funds under his or its direction, and shall direct the Trustee to hold cash funds uninvested in such amounts and for such periods of time as may appear to be reasonably necessary to meet cash requirements. Notwithstanding the appointment of an Investment Manager, the Trustee is authorized in its sole discretion to invest and reinvest the cash forming a part of any Investment Fund, which it has not been directed to hold uninvested, in such certificates of deposit, variable demand notes, corporate money market instruments such as commercial paper and U.S. Treasury bills and notes, repurchase agreements or other evidences of indebtedness which are payable on demand or which generally have a maturity date of not more than fifteen (15) months from the time of acquisition and including units of any common trust fund holding any such investments administered by the Trustee, as the Trustee in its sole discretion deems suitable for the Investment Fund. The Trustee does not guarantee any such obligation, deposit, note, or other investment made by it from loss, depreciation, or diminution in value.
- (v) Payment of the cost of the acquisition, sale or exchange of any security or other property for an Investment Fund shall be charged to such Investment Fund.
- (vi) The investment manager shall receive such compensation as may be agreed upon by it and the Committee, which compensation shall be paid by the Corporation.
- (vii) If the Committee appoints an investment manager, the Trustee shall be relieved of its rights, duties and obligations hereunder to the extent delegated to such investment manager in accordance with this Agreement.
- (viii) All actions (and inaction) by the Committee pursuant to this Section 8(b) shall be in a nonfiduciary capacity (except with respect to any fiduciary duties to the Corporation and its shareholders).

## SECTION 9. ACCOUNTING BY TRUSTEE.

The Trustee shall keep accurate and detailed records of all investments, receipts, disbursements, and all other transactions required to be done, including such specific records as shall be agreed upon in writing between the Committee and the

Trustee. All such accounts, books and records shall be open to inspection and audit at all reasonable times by the Committee, the Corporation, and, after a Change of Control and with respect to his separate account(s) only, by a Participant or his Beneficiary. Within sixty (60) days following the close of each fiscal quarter of the Corporation and within sixty (60) days after the resignation or removal of the Trustee, the Trustee shall deliver to the Committee, and after a Change of Control and with respect to his separate account(s) only, to each Participant or his Beneficiary, a written account of its administration of the Trust during such quarter or during the period from the close of the last preceding quarter to the date of such resignation or removal, setting forth all investments, receipts, disbursements and other transactions effected by it, including a description of all securities and investments purchased and sold with the cost or net proceeds of such purchases or sales (accrued interest paid or receivable being shown separately), and showing all cash, securities and other property held in the Trust at the end of such quarter or as of the date of such resignation or removal, as the case may be. In the absence of the filing in writing with the Trustee by the Committee of exceptions or objections to any such account within 60 days, the Committee, or the Participant or his Beneficiary with respect to his separate account(s) after a Change of Control, shall be deemed to have approved such account, and in such case, or upon the written approval by the Committee, or the Participant or his Beneficiary with respect to his separate account(s) after a Change of Control, of any such account, the Trustee shall be released, relieved and discharged with respect to all matters and things set forth in such account as though such account had been settled by the decree of a court of competent jurisdiction.

## SECTION 10. RESPONSIBILITY OF TRUSTEE.

(a) The Trustee shall act with the care, skill, prudence and diligence under the circumstances then prevailing that a prudent corporate trustee acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims; provided, however, that the Trustee shall incur no liability to anyone for any action taken pursuant to a direction, request, or approval contemplated by and complying with the terms of this Agreement.

- (b) The Trustee shall not be required to undertake or to defend any litigation on behalf of the Trust, unless it be first indemnified by the Corporation against its prospective costs, expenses and the liability, and the Corporation hereby agrees to indemnify Trustee for such costs, expenses, and liability. If the Corporation does not make payment to the Trustee of an agreed indemnity for such costs, expenses, and liabilities in a reasonably timely manner, the Trustee may obtain payment from the Trust to the extent permitted under applicable law and in accordance with Section 11.
- (c) The Trustee may consult with legal counsel (who may also be counsel generally or specially for the Trustee or the Corporation or their affiliates) with respect to any of its duties or obligations hereunder, and shall be fully protected in acting or refraining from acting in accordance with the advice of such counsel.
- (d) The Trustee may rely and shall be protected in acting or refraining from acting upon any written notice, instruction or request furnished to it hereunder and reasonably believed by it to be genuine and to have been signed or presented by the Corporation, the Committee, or a Participant or Beneficiary.

## SECTION 11. COMPENSATION AND EXPENSES OF TRUSTEE.

The Trustee shall be entitled to receive reasonable compensation for its services in accordance with its published fee schedule as in effect from time to time. The Trustee shall be entitled to receive its reasonable expenses incurred with respect to the administration of the Trust, including fees and expenses incurred by the Trustee pursuant to this Agreement (including attorney's fees and court costs). Such compensation and expenses shall be paid by the Corporation. If the Corporation fails to pay such compensation and expenses within thirty (30) business days after written request therefor has been made by the Trustee, such compensation and expenses may be paid from the assets of the Trust and charged against the separate accounts from time to time held under the Trust in such proportions as the Trustee shall deem equitable, but the Corporation shall remain liable therefor and the Trustee shall take reasonable action, including, but not limited to, institution of legal action, to collect such compensation and expenses and upon such collection shall credit the separate accounts under the Trust to which such compensation and expenses were charged with the net proceeds of such collection in such proportions as the Trustee deems equitable. The expenses incurred by the Trustee in connection with any reasonable action required to obtain payment of such compensation or expenses shall constitute additional expenses for which the Trustee shall be entitled to reimbursement under this Section.

## SECTION 12. TENURE AND SUCCESSION OF TRUSTEES.

(a) Each Trustee from time to time serving under this Agreement shall have the right to resign by at least 45 days advance written notice to the Committee (unless the Committee shall accept shorter notice), and if a Change of Control has not occurred the Committee may remove any Trustee from time to time serving under this

Agreement by at least 45 days advance written notice (unless the Trustee shall accept shorter notice) to the Trustee received by the Trustee prior to a Change of Control. No such resignation or removal shall become effective, however, until the acceptance of the Trust by a successor Trustee designated in accordance with Section 12(b) of this Agreement.

- (b) If the Trustee, or any successor to it designated in accordance with this Section 12(b), for any reason shall resign, decline, cease or otherwise fail to serve as Trustee or be removed by the Committee, a new trustee shall be appointed by the Committee if a Change of Control shall not have occurred. If the Trustee should resign, decline, cease, or otherwise fail to serve as Trustee, and a Change of Control has occurred or does occur, or within 45 days of such resignation, declination, cessation, or failure to serve the Committee shall not have notified the Trustee of a successor trustee, the Trustee shall appoint a successor trustee or may, in its sole discretion, apply to a court of competent jurisdiction for the appointment of a successor trustee. A successor trustee shall be a bank or trust Company (1) that the appointing person or entity in its sole discretion considers an appropriate trustee for the Trust, having due regard for the objectives, magnitude, and expected duration of the Trust; (2)(i) whose trust assets under investment would place it among the 100 largest trust companies in the United States or (ii) which is a national banking association or established under the laws of one of the states of the United States and which has gross assets in excess of \$1 billion; and (3) which is independent and not subject to the control of the Corporation or a Participant or Beneficiary. The preceding determinations shall be made as of the time of appointment of the successor trustee.
- (c) Upon acceptance of the Trust, each successor Trustee shall be vested with the title to the Trust assets possessed by the Trustee which it succeeds less any amounts to which the predecessor Trustee may be entitled under
  Section 11 and shall have all the powers, discretions, and duties of such predecessor Trustee; provided, however, the predecessor Trustee may reserve such reasonable amount as it shall deem necessary to provide for expenses and compensation to which it may be entitled under Section 11 and any taxes or other sums chargeable against the Trust for which it may be liable, and in the event that the amount so reserved is insufficient for such purposes, the Trustee shall be entitled to reimbursement from the Corporation or, in the absence thereof, the successor Trustee. No successor Trustee shall be required to furnish bond.
- (d) Each successor Trustee may accept as complete and correct and may rely upon any accounting by any predecessor Trustee and upon any statement or representation by any predecessor Trustee as to the assets comprising or any other matter pertaining to the administration of the Trust. No successor Trustee shall be liable for any act or omission of any predecessor Trustee or have any duty to enforce or seek to enforce any claim of any kind against any predecessor Trustee on account of any such act or omission.

SECTION 13. AMENDMENT AND TERMINATION.

- (a) This Agreement shall not be subject to amendment by the Corporation or any other organization or individual in any respect, except as provided in this Section 13(a). At any time and from time to time the Corporation may amend this Agreement in any respect, but only by delivery to the Trustee of an instrument authorized by the Committee which is signed by two officers of the Corporation; provided, however, that no such amendment delivered to the Trustee on or after a Change of Control shall be effective unless the Corporation shall obtain the written consent to such amendment of any Participant or Beneficiary affected by such amendment and provide the Trustee with such evidence of such consent as the Trustee shall reasonably require. Any amendment shall be effective only upon the Trustee's written acceptance of such amendment, which acceptance shall not be unreasonably withheld unless such amendment would affect the powers, duties, liabilities, or compensation of the Trustee. For purposes of this Section 13(a), any amendment to this Agreement may be made with respect only to the separate account of an individual Participant or Beneficiary, in which case such amendment shall be deemed not to affect any other Participant or Beneficiary.
- (b) After full satisfaction of the benefits under the Plan of a Participant or Beneficiary as determined under Section 7(c) of this Agreement, any remaining Trust assets attributable to the Participant's or Beneficiary's separate account shall be returned to the Corporation or redistributed to other separate accounts under the Trust at the Corporation's option and upon a written direction by the Committee to the Trustee to such effect.
- (c) The Trust shall terminate on the earlier of the date on which prior to a Change of Control the Trustee receives an instrument revoking the Trust that is authorized by the Committee and is signed by two officers of the Corporation or the first date on which all Participants and Beneficiaries are no longer entitled to benefits under the Plan.
- (d) Upon termination of the Trust as provided in Section 13(c) of this Agreement, any assets remaining in the Trust shall be returned to the Corporation.

## SECTION 14. AMENDMENTS TO PLAN.

(a) The Corporation may amend or terminate the Plan as provided therein and shall promptly furnish the Trustee with copies of any modification, amendment, restatement, or change of the Plan.

(b) Notwithstanding the foregoing provisions of Section 14(a) of this Agreement, any modification, amendment, restatement, termination or change of the Plan that would increase the responsibilities or liabilities of the Trustee under this Agreement or change its duties under this Agreement shall not be binding upon the Trustee without the written consent of the Trustee, and if the Trustee shall decline to so consent it shall forthwith resign as Trustee as provided in Section 12 of this Agreement.

## SECTION 15. GENERAL PROVISIONS.

- (a) Any provision of this Agreement prohibited by law shall be ineffective to the extent of any such prohibition without invalidating the remaining provisions hereof.
- (b) No right or interest of any Participant or Beneficiary under this Agreement may (either at law or in equity) be anticipated, assigned, alienated, encumbered, pledged or subject to attachment, garnishment, levy, execution or other legal or equitable process, and any attempted anticipation, assignment, alienation, encumbrance, pledge, attachment, garnishment, levy, execution, or subjection to process shall be void ab initio. Except to the extent amounts have been paid in excess of that due in accordance with the Plan, no amount paid to a Participant or Beneficiary by Trustee shall be subject to any claim for repayment by the Corporation or Trustee.
- (c) Nothing in this Agreement shall in any way diminish the rights of a Participant or Beneficiary to pursue his rights as a general creditor of the Corporation with respect to the benefits under the Plan or otherwise, and the rights or obligations of a Participant or Beneficiary and the Corporation under the Plan shall in no way be affected or diminished by any provision of this Agreement or action taken pursuant to this Agreement except that any payment actually received by a Participant or Beneficiary hereunder shall reduce amounts otherwise due to the Participant or Beneficiary pursuant to the Plan as provided in this Agreement.
- (d) If at any relevant time the Committee shall not exist or be acting, then any action contemplated herein to be taken by the Committee shall be taken by the Board.
- (e) Except as may otherwise be provided hereunder or agreed to in writing between the Corporation and the Trustee, the Corporation shall have responsibility for the preparation and delivery to persons and governmental agencies of all information, descriptions, reports and returns required by law; the Trustee shall, however, provide such reasonable assistance to the Corporation as is necessary or appropriate for the Corporation to perform such obligations. Notwithstanding the

foregoing provisions of this Section 15(e), however, the Trustee shall have responsibility for filing any returns or reports imposed upon the Trustee as trustee of the Trust with respect to the Trust under the Code, and the Corporation shall provide such reasonable assistance to the Trustee as is necessary or appropriate for the Trustee to file such returns or reports. The Trustee shall be entitled, as it may deem appropriate, to require the Corporation or any person having any interest under the Plan or in, to, or under the Trust, to provide such certifications and proofs of facts as shall permit the Trustee to perform its duties under applicable law and regulations adopted thereunder as may be in effect from time to time, or to exercise the powers granted the Trustee under the Trust.

- (f) The creation or maintenance of the Trust shall not entitle any person to continued employment with the Corporation or any of its subsidiaries or affiliates or otherwise affect any such employment relationship, nor shall it entitle any person to continued status as a director of the Corporation or any of its subsidiaries or affiliates.
- (g) Each Participant or Beneficiary is an intended beneficiary under this Trust, and, as an intended beneficiary, shall be entitled to enforce the terms and provisions of this Agreement applicable to the Participant or Beneficiary.
- (h) This Agreement may be executed in two or more counterparts, each of which shall be considered an original agreement.
- (i) All notices, requests, consents, and other communications required hereunder shall be in writing and shall be effective when received:

If to the Corporation at: Brush Wellman Inc. 17876 St. Clair Avenue Cleveland, Ohio 44110-2697 Attention: Secretary

If to the Trustee at: Fifth Third Bank 1404 East Ninth Street Cleveland, Ohio 44114-1722 Attention: [\_\_\_\_\_]

If to a Participant at: The address set forth on Exhibit 3;

provided, however, that if any of the foregoing or its or his successors shall have designated a different address by written notice, then at the last address so designated.

IN WITNESS WHEREOF, the Corporation has caused this Agreement to be executed on		e date first above written, and the Trustee has
	BRUSH WELLMAN INC.	
$\mathrm{By}$	Title:	-
	FIFTH THIRD BANK	
$\mathrm{By}$	Title:	-
And	Title:	-
	-20-	

(j) This Agreement shall be governed by and construed in accordance with the laws of the State of Ohio.

## **EXHIBIT 3**

Cash in the following amounts has been transferred and delivered to the Trustee to be held and administered in accordance with the foregoing Trust Agreement:

For the Separate Account of (name and address of Participant):

Amount

Specified Period

## **EXHIBIT 5(b)(1)**

## CERTIFICATE UNDER SECTION 5(B)(1) OF TRUST AGREEMENT FOR BRUSH WELLMAN INC. EXECUTIVE DEFERRED COMPENSATION PLAN

The undersigned hereby certifies to, Trustee (the "Trustee") under the Trust Agreement for Brush Wellman Inc.  Executive Deferred Compensation Plan dated, 1999 (the "Trust Agreement"), that:
(1) The undersigned is a Participant or a Beneficiary.
(2) A Change of Control as described in Section 4 of the Trust Agreement with respect to the undersigned has occurred.
(3) The undersigned, or the Participant through whom the Beneficiary claims, has complied with all terms of the Plan in order to receive a payment [or aggregate payments] of \$, which [are] currently due and owing but has not been delivered by the Corporation.
(4) The date(s) on which the delivery(s) referred to in (3) above was or were due are as follows:
(5) The Trustee is hereby directed to pay the undersigned \$ [and interest thereon] pursuant to Section 5(b) of the Trust Agreement.

- (6) The undersigned hereby acknowledges and agrees, on behalf of himself and his heirs, executors, administrators, successors and assigns, that any payment or transfer of Designated Property received by the undersigned from the Trustee pursuant to this Certificate, shall constitute a payment to the undersigned under the Plan and shall satisfy the Corporation's liability, if any, with respect thereto to the extent of such payment and that if and to the extent that a final, unappealable order of a court of competent jurisdiction shall hold that the undersigned was not entitled to such payment, the undersigned shall be liable therefor to the Corporation.
- (7) Accompanying this Certificate is an affidavit certifying that this Certificate is true, correct and complete to the best of the undersigned's knowledge and binding upon the undersigned and the undersigned's heirs, executors, administrators, successors and assigns, and that copies of this Certificate have been delivered to Brush Wellman Inc.

(8) All capitalized terms used in this Cert Agreement.	ificate that are not defined herein shall have the me	eanings given to those te	rms under the Trust
IN WITNESS WHEREOF, the undersign	ed has executed and delivered this Certificate this	day of	··

## EXHIBIT 5(b)(2)

## **AFFIDAVIT**

and

**Notary Public** 

## EXHIBIT 5(c)

## LETTER TO PARTICIPANT OR BENEFICIARY UNDER

SECTION 5(B) OR SEC PLAN	CTION 5(C) OF TRUST AGREEME	ENT BRUSH WELLMAN INC. EXECUTIVE DI	EFERRED COMPENSATION
_			
Dear	:		
	, in payment to you under the B lding as follows:	rush Wellman Inc. Executive Deferred Compens	ation Plan. [This payment is net
[cashing the enclosed ch	eck] [accepting the enclosed	], you acknowledge and agree that er the Brush Wellman Inc. Executive Deferred Co	
[Trustee]			
By:	Title:		

#### **EXHIBIT 10ii**

## THIRD AMENDMENT TO MASTER LEASE AGREEMENT AND AMENDMENT TO EQUIPMENT SCHEDULES

THIS THIRD AMENDMENT TO MASTER LEASE AGREEMENT AND AMENDMENT TO EQUIPMENT SCHEDULES, dated as of September 30, 1999 ("Amendment"), by and between Brush Wellman Inc., an Ohio corporation ("Lessee"), and National City Bank, for itself and as agent for certain participants ("Lessor"),

## WITNESSETH THAT:

WHEREAS, Lessee and Lessor entered into a Master Lease Agreement, dated as of December 30, 1996, as amended by the First Amendment to Master Lease Agreement, dated as of September 2, 1997, and the Second Amendment to Master Lease Agreement and Amendment to Disbursement Schedules, dated as of January 26, 1999 (together with all Exhibits and Schedules thereto, the "Lease Agreement"), under which Lessor agreed to lease to Lessee certain equipment to be used by Lessee at its Elmore, Ohio facility, subject to certain conditions and in accordance with the terms thereof; and

WHEREAS, the parties desire to amend the Lease Agreement as set forth herein;

NOW, THEREFORE, in consideration of the premises and the mutual covenants and agreements contained herein, the parties hereto agree as follows:

1. Effect of Amendment; Definitions.

The Lease Agreement shall be and hereby is amended as provided in Section 2 hereof. Except as expressly amended in Section 2 hereof, the Lease Agreement shall continue in full force and effect in accordance with its respective provisions on the date hereof. As used in the Lease Agreement, the terms "Master Lease Agreement", "Lease Agreement", "Agreement", "this Agreement", "herein", "herein", "herein", "herein", "herein", "hereof", and words of similar import shall, unless the context otherwise requires, mean the Lease Agreement as amended and modified by this Amendment.

- 2. Amendments.
- (A) Section XXIII(b) of the Lease Agreement shall be amended by deleting the same and inserting the following in lieu thereof:
- "(b) Lessee will not suffer or permit the Companies' Funded Indebtedness at any time to exceed an amount equal to the Leverage Multiplier (as hereinafter defined) times the Companies' EBITDA for the four consecutive fiscal quarters most recently ended, all as determined on a consolidated basis. As used herein, "LEVERAGE MULTIPLIER" means (i) from April 1, 1999, to September 30, 1999, inclusive, 4.25, (ii) from October 1, 1999, to December 31, 1999, inclusive, 4.00, (iii) from January 1, 2000, to March 31, 2000, inclusive, 3.75, (iv) from April 1, 2000, to June 30, 2000, inclusive, 3.50, (v) from July 1, 2000, to December 31, 2000, inclusive, 3.25, and (vi) on and after January 1, 2001, 3.00."
- $(B) \ Section \ XXIV(h)(D) \ of \ the \ Lease \ Agreement \ shall \ be \ amended \ by \ deleting \ the \ same \ and \ substituting \ in \ lieu \ thereof \ the \ following:$
- "(D) any Guaranty by Lessee of Funded Indebtedness of any Company to the extent that such Funded Indebtedness of that Company is otherwise permitted by this Agreement and any guaranty by Lessee or any Company of any obligations of any other Company that deals in precious metals under any consignment arrangement that is permitted under Section XXIV(j)(i),"

- (C) Section XXIV(j)(i) of the Lease Agreement shall be amended by deleting the same and substituting in lieu thereof the following:
- "(i) lease any property as lessee or acquire or hold any property subject to any land contract, inventory consignment (except for any precious metals inventory of a Company that deals in precious metals that is subject to any consignment arrangement or consignment arrangements that are approved by NCB-Agent, which approval will not be unreasonably withheld, and only so long as the aggregate value, in United States Dollars, of the precious metals subject thereto does not exceed an amount greater than \$75,000,000 at any time), or other title retention contract,"
- (D) Exhibit No. 2 and Exhibit No. 3 to the Lease Agreement are deleted and Exhibit No. 2 and Exhibit No. 3 attached to this Amendment are inserted in lieu thereof.
- (E) Each Equipment Schedule executed and delivered by Lessee on or prior to the date hereof shall be amended by deleting the table in the first paragraph of the definition of "Applicable Margin" in Paragraph C thereof and substituting the following in lieu thereof:

If the Ratio of the Companies' Funded Indebtedness to the Companies' EBITDA is:  Less than 4.25 to 1.00, but greater	The Applicable Margin is:
than or equal to 4.00 to 1.00	1.75%
Less than $4.00$ to $1.00$ , but greater than or equal to $3.50$ to $1.00$	1.50%
Less than 3.50 to 1.00, but greater than or equal to 3.00 to $1.00$	1.25%
Less than 3.00 to 1.00, but greater than or equal to 2.50 to 1.00	1.00%
Less than 2.50 to 1.00	0.75%

(From October 1, 1999, until changed hereunder in accordance with the following provisions, the Applicable Rate will be 1.75% per annum.)"

- 3. Representations and Warranties.
- (A) Lessee hereby represents and warrants to Lessor that all representations and warranties set forth in the Lease Agreement and the Equipment Schedules, as amended hereby, are true and correct in all material respects, and that this Amendment has been executed and delivered by a duly authorized officer of Lessee and constitute the legal, valid and binding obligation of Lessee, enforceable against Lessee in accordance with their respective terms.
- (B) The execution, delivery and performance by Lessee of this Amendment and its performance of the Lease Agreement and the Equipment Schedules, as amended hereby, have been authorized by all requisite corporate action and will not (1) violate (a) any order of any court, or any rule, regulation or order of any other agency of government, (b) the Articles of Incorporation, the Code of

Regulations or any other instrument of corporate governance of Lessee, or (c) any provision of any indenture, agreement or other instrument to which Lessee is a party, or by which Lessee or any of its properties or assets are or may be bound; (2) be in conflict with, result in a breach of or constitute, alone or with due notice or lapse of time or both, a default under any indenture, agreement or other instrument referred to in (1)(c) above; or (3) result in the creation or imposition of any lien, charge or encumbrance of any nature whatsoever.

## 4. Miscellaneous.

- (A) This Amendment shall be construed in accordance with and governed by the laws of the State of Ohio, without reference to principles of conflict of laws. Lessee agrees to pay to Lessor a fee in an amount equal to \$59,770 at the time this Amendment is executed and delivered by Lessor and to pay on demand all costs and expenses of Lessor, including reasonable attorneys' fees and expenses, in connection with the preparation, execution and delivery of this Amendment.
- (B) The execution, delivery and performance by Lessor of this Amendment shall not constitute, or be deemed to be or construed as, a waiver of any right, power or remedy of Lessor, or a waiver of any provision of the Lease Agreement. None of the provisions of this Amendment shall constitute, or be deemed to be or construed as, a waiver of any "Default" or "Potential Default," as those terms are defined in the Lease Agreement.
- (C) This Amendment may be executed in two or more counterparts, each of which shall constitute an original, but all of which, when taken together, shall constitute but one instrument.
- (D) Lessee hereby acknowledges and consents to the following financial institution being a Participant in the Lease, in addition to the financial institutions that have been Participants and that acknowledge, consent and agree to this Amendment: Firstar Bank, N.A.

IN WITNESS WHEREOF, the parties have caused this Amendment to be duly executed as of the day and year first above written.

LESSOR:

NATIONAL CITY BANK, FOR ITSELF AND AS AGENT FOR CERTAIN PARTICIPANTS

By: /s/ Michael C. Hasychak

By: /s/ Janice E. Focke Name: Janice E. Focke Title: Vice President

Name: Michael C. Hasychak Title: Treasurer and Secretary

THE FOREGOING AGREEMENT is hereby acknowledged, consented and agreed to by each of the undersigned by their respective duly authorized officers as of the day and year first above written.

Address: FIFTH THIRD BANK, NORTHEASTERN

OHIO

LESSEE:

BRUSH WELLMAN INC.

1404 East Ninth Street Cleveland, Ohio 44114

By:

Title:

## Address: BANK ONE, MICHIGAN

611 Woodward

Detroit, Michigan 48226 By: /s/ Patrick F. Dunphy Fax: (313) 225-1212

Fax: (313) 225-1212

Title: Vice President

Address: HARRIS TRUST AND SAVINGS BANK

P.O. Box 755 (111/10W)

Chicago, Illinois 60690-0755 By: /s/ Thad D. Rasche

Fax: (312) 461-5225

Title: Vice President

Address: FIRSTAR BANK, N.A.

1350 Euclid Avenue, ML 4432

Cleveland, Ohio 44115 Fax: (216) 623-9280

By: /s/ John D. Barrett

Title: Senior Vice President

#### **EXHIBIT NO. 2**

## **EQUIPMENT SCHEDULE**

SCHEDULE NO. \_\_\_\_\_,
DATED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 199\_\_
TO MASTER LEASE AGREEMENT DATED AS OF December 30, 1996

Lessor & Mailing Address:

Lessee & Mailing Address:

NATIONAL CITY BANK, FOR ITSELF AND AS AGENT FOR CERTAIN PARTICIPANTS 1900 East 9th Street Cleveland, Ohio 44114 BRUSH WELLMAN INC. 17876 St. Clair Avenue Cleveland, Ohio 44110

This Equipment Schedule is executed pursuant to, and incorporates by reference the terms and conditions of, and capitalized terms not defined herein shall have the meanings assigned to them in, the Master Lease Agreement identified above ("Agreement;" said Agreement and this Schedule being collectively referred to as "Lease"). This Equipment Schedule, incorporating by reference the Agreement, constitutes a separate instrument of lease.

## A. Equipment.

Pursuant to the terms of the Lease, Lessor agrees to acquire and lease to Lessee the Equipment listed on Annex A attached hereto and made a part hereof.

- B. Financial Terms.
- 1. Capitalized Lessor's Cost: \$\_\_\_\_\_\_ (being an amount equal to funds disbursed and Interim Rent accrued and unpaid in respect of the Equipment and its parts and components during the Interim Lease Period).
- 2. Daily Lease Rate Factor: LIBOR Rate plus the Applicable Margin per annum.
- 3. Basic Term: The thirty-three month period commencing on the Basic Term Commencement Date.
- 4. Basic Term Commencement Date: March 15, 1999.
- 5. Equipment Location: Lessee's plant in 14710 W. Portage River South Road, Harris Township, Ottawa County, Ohio 43416.
- 6. Lessee Federal Tax ID No.: 34-0119320
- 7. Lessee agrees and acknowledges that the Capitalized Lessor's Cost of the Equipment as stated on the Schedule is equal to the fair market value of the Equipment on the date hereof.
- 8. Renewal Term: Each Renewal Term will consist of a one-year period, and subject to Section XVIII(b), Lessee may elect up to seven (7) Renewal Terms.
- 9. Maximum Lease Term: The Term shall not exceed twelve (12) years.

0. Stipulated Loss Values: See Annex D.
1. Termination Values: See Annex D.
2. Assumed Interest Rate:% (which will be determined three (3) Business Days before the date of execution of this Schedule).
3. Last Delivery Date: February 15, 1999.

#### C. Term and Rent.

1. Basic Term and Renewal Term Rent. Commencing on the Basic Term Commencement Date and payable, in arrears, on the same day of each quarter thereafter (each, a "Rent Payment Date") during the Basic Term ("Basic Term Rent") and any Renewal Term ("Renewal Term Rent"), Lessee shall pay as Rent quarterly installments of (a) interest on the unamortized portion of the unpaid Capitalized Lessor's Cost as of the immediately preceding Rent Payment Date (after application of the Rent paid on such date) at the Interest Rate for the Interest Period following such immediately preceding Rent Payment Date and (b) of principal in the principal amounts described on the Amortization Schedule attached as Annex E. Interest shall be calculated on the basis of a 360 day year for the actual number of days elapsed. Said Rent consists of principal and interest components, such principal components being as provided in the Amortization Schedule attached hereto as Annex E.

As used herein, the following terms shall have the following meanings:

"Applicable Margin" shall mean the particular rate per annum determined by Lessor in accordance with the pricing grid table which appears below, based on the ratio of the Companies' Funded Indebtedness to the Companies' EBITDA, as computed in accordance with the pricing grid table and the following provisions:

If the Ratio of the Companies' Funded	
Indebtedness to the Companies' EBITDA is:	The Applicable Margin is:
Less than 4.25 to 1.00, but greater	
than or equal to 4.00 to 1.00	1.75%
chair of equal to 1.00 to 1.00	1.750
Less than 4.00 to 1.00, but greater	
· · · · · · · · · · · · · · · · · · ·	1 500
than or equal to 3.50 to 1.00	1.50%
Less than 3.50 to 1.00, but greater	
than or equal to 3.00 to 1.00	1.25%
Less than 3.00 to 1.00, but greater	
than or equal to 2.50 to 1.00	1.00%
chan of equal to 2.50 to 1.00	1.00%
Tara than 2 FO to 1 00	0.75%
Less than 2.50 to 1.00	0.75%

(From October 1, 1999, until changed hereunder in accordance with the following provisions, the Applicable Rate will be 1.75% per annum.)"

(A) Commencing with the fiscal quarter of Lessee ending on or nearest to March 31, 1999, and continuing with each fiscal quarter thereafter, Lessor will determine the Applicable Margin in accordance with the foregoing pricing grid table, based on the ratio of (x) the Funded Indebtedness of the Companies as of the end of the fiscal quarter, to (y) the EBITDA of the Companies for the four

consecutive fiscal quarters ended on the last day of the fiscal quarter, as identified in the pricing grid table. Changes in the Applicable Margin based upon changes in such ratio shall become effective on the first day of the month following the receipt by Lessor pursuant to Section IV(b) (i) or (ii) of the financial statements of Lessee and it Subsidiaries, accompanied by the certificate and calculations referred to in Section IV(b) (iii), demonstrating the computation of such ratio, based upon the ratio in effect at the end of the applicable period covered (in whole or in part) by such financial statements.

- (B) Notwithstanding the above provisions, during any period when an Event of Default has occurred and is continuing, the Applicable Margin shall be the highest rate per annum indicated therefor in the foregoing pricing grid table, regardless of the ratio of Funded Indebtedness to EBITDA at such time. Notwithstanding the above provisions, but subject to the preceding sentence, during any period when Borrower has failed to timely deliver its consolidated financial statements referred to in subsection IV(b)(i) or (ii), accompanied by the certificate and calculations referred to in subsection IV(b)(iii), the Applicable Margin shall be the rate per annum indicated for the level in the foregoing pricing grid table that is one level higher than the level that is otherwise then currently in effect, regardless of the ratio of Funded Indebtedness to EBITDA at such time.
- (C) Any changes in the Applicable Margin shall be determined by Lessor in accordance with the above provisions and Lessor will promptly provide notice of such determinations to Lessee. Any such determination by Lessor pursuant to the above provisions shall be conclusive and binding absent manifest error. The Applicable Margin is subject in all respects to compliance by Lessee with Section XXIII(b) of the Lease, and this schedule of levels for the Applicable Margin is not intended to waive or otherwise excuse a violation of Section XXIII(b) of the Lease; if that Section is violated, the Daily Lease Rate Factor will increase as set forth in Section XIX(j) of the Lease."

"Interest Period" shall mean the period beginning on the Basic Term Commencement Date and ending on the next Rent Payment Date, and each subsequent quarterly period.

"Interest Rate" shall mean that percentage per annum calculated as the sum of the LIBOR Rate redetermined quarterly, plus sixty (60) basis points.

"LIBOR Rate" shall mean, with respect to any Interest Period occurring during the term of the Lease, an interest rate per annum equal at all times during such Interest Period to the quotient of (1) the rate per annum as determined by Lessor at which deposits of U.S. Dollars in immediately available and freely transferable funds are offered at 11:00 a.m. (London, England time) two (2) Business Days before the commencement of such Interest Period to major banks in the London interbank market for a period of three (3) months and in an amount equal or comparable to the Capitalized Lessor's Cost, divided by (2) a number equal to 1.00 minus the aggregate (without duplication) of the rates (expressed as a decimal fraction) of the LIBOR Reserve Requirements current on the date three (3) Business Days prior to the first day of the Interest Period.

"LIBOR Reserve Requirements" shall mean the daily average for the applicable Interest Period of the maximum rate applicable to Lessor or its Participants at which reserves (including, without limitation, any supplemental, marginal and emergency reserves) are imposed during such Interest Period by the Board of Governors of the Federal Reserve System (or any successor) on "Eurocurrency liabilities", as defined in such Board's Regulation D (or in respect of any other category of liabilities that include deposits by reference to which the interest rates on Eurodollar loans is determined or any category of extensions of credit or other assets that include loans by non-United States offices of any lender to United States residents), having a term equal to such Interest Period, subject to any amendments of such reserve requirement by such Board or its successor, taking into account any transitional adjustments thereto.

If at any time Lessor or any Participant (or, without duplication, the bank holding company of which such Participant is a subsidiary) determines that either adequate and reasonable means do not exist

for ascertaining the LIBOR Rate, or it becomes impractical for Lessor or any Participant to obtain funds to make or maintain the financing hereunder with interest at the LIBOR Rate, or Lessor or any Participant reasonably determines that, as a result of changes to applicable law after the date of execution of the Agreement, or the adoption or making after such date of any interpretations, directives or regulations (whether or not having the force of law) by any court, governmental authority or reserve bank charged with the interpretation or administration thereof, it shall be or become unlawful or impossible to make, maintain, or fund the transaction hereunder at the LIBOR Rate, then Lessor promptly shall give notice to Lessee of such determination and Lessor and Lessee shall negotiate in good faith a mutually acceptable alternative method of calculating the Interest Rate and shall execute and deliver such documents as reasonably may be required to incorporate such alternative method of calculating the Interest Rate in this Schedule, within thirty (30) days after the date of Lessor's notice to Lessee. If the parties are unable mutually to agree to such alternative method of calculating the Interest Rate in a timely fashion, (a) effective on the commencement of the next succeeding Interest Period or the date that it becomes impractical for Lessor or any Participant to maintain the financing hereunder with interest at the LIBOR Rate as aforesaid, as case may be, the Interest Rate shall become a floating rate equal to the Federal Funds Rate plus sixty (60) basis points, and (b) on the Rent Payment Date next succeeding the expiration of such thirty (30) day period Lessee shall purchase all (but not less than all) of the Equipment described on all Schedules executed pursuant to the Agreement and shall pay to Lessor, in cash, the purchase price for the Equipment so purchased, determined as hereinafter provided. (As used herein, "Federal Funds Rate" means the rate of interest, as reasonably determined by Lessor, paid by or available to Lessor for the purchase of "federal funds" at the time or times in question on a daily overnight basis.) The purchase price of the Equipment shall be an amount equal to the Stipulated Loss Value of such Equipment calculated in accordance with Annex D as of the date of payment, together with all rent and other sums then due on such date, plus all taxes and charges upon sale and all other reasonable and documented expenses incurred by Lessor in connection with such sale. Upon satisfaction of the conditions specified in this Paragraph, Lessor will transfer, on an AS IS, WHERE IS BASIS, all of Lessor's interest in and to the Equipment. Lessor shall not be required to make and may specifically disclaim any representation or warranty as to the condition of the Equipment and other matters (except that Lessor shall warrant that it conveyed whatever interest it received in such Equipment free and clear of any Lien created by Lessor). Lessor shall execute and deliver to Lessee such Uniform Commercial Code statements of termination as reasonably may be required in order to terminate any interest of Lessor in and to the Equipment.

- 2. If the Rent Payment Date or any Rent Payment Date is not a Business Day, the Rent otherwise due on such date shall be payable on the immediately preceding Business Day.
- 3. Lessee shall pay to Lessor, for the account of each Participant, from time to time the amounts as such Participant may determine to be necessary to compensate it for any costs which such Participant determines are attributable to its making or maintaining its interest in the Lease and the Equipment (the "Interest") or any reduction in any amount receivable by such Participant in respect of any such Interest (such increases in costs and reductions in amounts receivable being herein called "Additional Costs"), resulting from any Regulatory Change (as defined below) which:
- (i) changes the basis of taxation of any amounts payable to Lessor for the account of such Participant in respect of such Interest (other than taxes imposed on or measured by the overall net income of such Participant in respect of the interest by the jurisdiction in which such Participant has its principal office or its lending office); or
- (ii) imposes or modifies any reserve, special deposit or similar requirements relating to any extensions of credit or other assets of, or any deposits with or other liabilities of, such Participant; or
- (iii) imposes any other condition affecting this Lease or any Interest.

For purposes hereof, "Regulatory Change" shall mean any change after the date of this Lease in United States federal, state or foreign law or regulations (including, without limitation, Regulation D of the Board of Governors of the Federal Reserve System (or any successor), as amended or supplemented from time to time) or the adoption or making after such date of any interpretation, directive or request applying to a class of banks including any Participant or under any United States federal, state or foreign law and whether or not failure to comply therewith would be unlawful) by any court or governmental or monetary authority charged with the interpretation or administration thereof.

Without limiting the effect of the foregoing Paragraph (but without duplication), Lessee shall pay to Lessor, for the account of each Participant, from time to time on request such amounts as such Participant may determine to be necessary to compensate such Participant (or, without duplication, the bank holding company of which such Participant is a subsidiary) for any costs which it determines are attributable to the maintenance by such Participant (or any lending office or such bank holding company), pursuant to any law or regulation or any interpretation, directive or request (whether or not having the force of law) of any court or governmental or monetary authority (i) following any Regulatory Change or (ii) implementing any risk-based capital guideline or requirement (whether or not having the force of law and whether or not the failure to comply therewith would be unlawful) heretofore or hereafter issued by any government or governmental or supervisory authority implementing at the national level the Basle Accord (including, without limitation, the Final Risk-Based Capital Guidelines of the Board of Governors of the Federal Reserve System (12 C.F.R. Part 208, Appendix A; 12 C.F.R. Part 225, Appendix A) and the Final Risk-Based Capital Guidelines of the Office of the Comptroller of the Currency (12 C.F.R. Part 3, Appendix A)), of capital in respect of such Participant's Interest (such compensation to include, without limitation, an amount equal to any reduction of the rate of return on assets or equity of such Participant (or any lending office or bank holding company) to a level below that which such Participant (or any lending office or bank holding company) could have achieved but for such law, regulation, interpretation, directive or request). For purposes of this Paragraph, "Basle Accord" shall mean the proposals for risk-based capital framework described by the Basle Committee on Banking Regulations and Supervisory Practices in its paper entitled "International Convergence of Capital Measurement and Capital Standards" dated July 1988, as amended, modified and supplemented and in effect from time to time or any replacement thereof.

Each Participant shall notify Lessee of any event occurring after the date of this Lease that will entitle such Participant to compensation under the preceding two Paragraphs as promptly as practicable, but in any event within thirty (30) days, after such Participant obtains actual knowledge thereof; provided, that (i) if such Participant fails to give such notice within thirty

(30) days after it obtains actual knowledge of such an event, such Participant shall, with respect to compensation payable pursuant to the preceding two Paragraphs in respect of any costs resulting from such event, only be entitled to payment under the referenced Paragraphs for costs incurred from and after the date thirty (30) days prior to the date that such Participant does give such notice, and (ii) such Participant will designate a different lending office for the Interest if such designation will avoid the need for, or reduce the amount of, such compensation and will not, in the sole opinion of such Participant, be disadvantageous to such Participant. Each Participant will furnish to Lessee a certificate setting forth the basis and amount of each request by such Participant for compensation under the preceding two Paragraphs. Determinations and allocations by each Participant for purposes of the preceding two Paragraphs shall be conclusive, absent manifest error.

#### D. Insurance.

- 1. Public Liability: \$1,000,000 total liability per occurrence and \$2,000,000 in the aggregate, with excess liability in umbrella form of \$10,000,000 per occurrence and in the aggregate, with a maximum deductible amount of (a) \$1,500,000 per occurrence or (b) an amount equal to \$1,500,000 per occurrence plus the amount of any reserves specifically allocated by Lessee for this type of liability that are satisfactory to Lessor, but in no event greater than \$2,500,000 per occurrence.
- 2. Casualty and Property Damage: An amount equal to the higher of the Stipulated Loss Value or the full replacement cost of the Equipment, with a maximum deductible amount of \$1,000,000 per occurrence.
- E. Fixed Purchase Price and Residual Risk Amount

	Fixed Purchase Price	Residual Risk Amount
	(Percent of Capitalized	(Percent of Capitalized
End of	Lessor's Cost)	Lessor's Cost)
Basic Term	100.0000%	13.2500%
Renewal Term 1	92.1681%	11.4000%
Renewal Term 2	83.7655%	10.5000%
Renewal Term 3	74.7508%	9.5000%
Renewal Term 4	64.8705%	8.6500%
Renewal Term 5	54.0542%	7.3000%
Renewal Term 6	42.4499%	6.2500%
Renewal Term 7	30.0000%	4.7000%

The Fixed Purchase Price and Residual Risk Amount are each expressed as a percentage of the Capitalized Lessor's Cost of the Equipment.

This Schedule is not binding or effective with respect to the Agreement or Equipment until executed on behalf of Lessor and Lessee by an authorized representative of Lessor and Lessee, respectively.

IN WITNESS WHEREOF, Lessee and Lessor have caused this Schedule to be executed by their duly authorized representatives as of the date first above written.

BRUSH WELLMAN INC.

LESSOR: LESSEE:

NATIONAL CITY BANK, FOR ITSELF AND AS AGENT FOR

FOR ITSELF AND AS AGENT F CERTAIN PARTICIPANTS

By: By: Name: Name:

Title: Title:

# ANNEX A TO SCHEDULE NO. \_\_\_\_ DATED THIS \_\_\_\_ DAY OF \_\_\_\_, 199\_ TO MASTER LEASE AGREEMENT DATED AS OF December 30, 1996

## DESCRIPTION OF EQUIPMENT

Vendor	Type and Serial Numbers	Model of Equipment	Number of Units	Cost per Unit
	Initials:	 Lessor	 Lessee	

ANNEX	В
TO	
SCHEDULE NO.	_

## DATED THIS \_\_\_\_ DAY OF \_\_\_\_\_, 199\_ TO MASTER LEASE AGREEMENT DATED AS OF December 30, 1996

## ASSIGNMENT OF PURCHASE ORDERS

[See Exhibit No. 6 to Master Lease Agreement]

## ANNEX C TO SCHEDULE NO. \_\_\_\_ DATED THIS \_\_\_\_ DAY OF \_\_\_\_, 199\_\_ TO MASTER LEASE AGREEMENT DATED AS OF December 30, 1996

## CERTIFICATE OF ACCEPTANCE

To: National City Bank, for Itself and as Agent for Certain Participants

Pursuant to the provisions of the above Schedule and Master Lease Agreement (collectively, the "LEASE"; capitalized terms used but not defined herein have the meanings ascribed thereto in the Lease), Lessee hereby certifies and warrants that (a) all equipment listed in the attached invoice or invoices (the "Equipment") is in good condition, installed (if applicable), and in working order; and (b) Lessee accepts the Equipment for all purposes of the Lease, each Purchase Order relating to the Equipment and all attendant documents.

Lessee does further certify that as of the date hereof (i) no Default or Potential Default has occurred; and (ii) the representations and warranties made by Lessee pursuant to or under the Lease are true and correct on the date hereof.

## **BRUSH WELLMAN INC.**

By: Name: Authorized Representative

Dated:	,	199	

## ANNEX D TO SCHEDULE NO. \_\_\_\_ DATED THIS \_\_\_\_ DAY OF \_\_\_\_

## TO MASTER LEASE AGREEMENT DATED AS OF December 30, 1996

## STIPULATED LOSS AND TERMINATION VALUE TABLE

NO. OF RENT PAYMENT DATE (after Basic Term Commencement  1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	Date)	STIPULATED LOSS AND TERMINATION VALUE*  100.0000% 100.0000% 100.0000% 100.0000% 100.0000% 100.0000% 100.0000% 100.0000% 100.0000% 100.0000% 100.0000% 98.0934% 96.1529% 94.1780% 92.1681% 90.1225% 88.0407% 85.9219% 83.7655% 81.5709% 79.3374% 77.0642% 74.7508% 72.3963% 70.0000% 67.4578% 64.8705% 62.2373% 59.5574% 56.8300%
28		62.2373%
31		54.0542%
32		51.2292%
33		48.3540%
34		45.4279%
35		42.4499%
36 37		39.4190%
		36.3344%
38		33.1950%
39		30.0000%
Initials:		
	Lessor	Lessee

<sup>\*</sup>The Stipulated Loss Value and Termination Value for any unit of Equipment shall be equal to the Capitalized Lessor's Cost of such unit multiplied by the appropriate percentage derived from the above table. In the event that the Lease is for any reason extended, then the last percentage figure shown above shall control throughout any such extended term.

## ANNEX E TO SCHEDULE NO. \_\_\_\_ DATED THIS \_\_\_\_ DAY OF \_\_\_\_, 199\_\_ TO MASTER LEASE AGREEMENT DATED AS OF December 30, 1996

## AMORTIZATION SCHEDULE

NO. OF RENT		
PAYMENT DATE	PERCENT OF	PERCENT OF
(after Basic Term	PRINCIPAL	REMAINING PRINCIPAL
Commencement Date)	PAYABLE*	BALANCE*
1	0.0000%	100.0000%
2	0.0000%	100.0000%
3	0.0000%	100.0000%
4	0.0000%	100.0000%
5	0.0000%	100.0000%
6	0.0000%	100.0000%
7	0.0000%	100.0000%
8	0.0000%	100.0000%
9	0.0000%	100.0000%
10	0.0000%	100.0000%
11	0.0000%	100.0000%
12	1.9066%	98.0934%
13	1.9405%	96.1529%
14	1.9749%	94.1780%
15	2.0099%	92.1681%
16	2.0456%	90.1225%
17	2.0818%	88.0407%
18	2.1188%	85.9219%
19	2.1564%	83.7655%
20	2.1946%	81.5709%
21	2.2335%	79.3374%
22	2.2732%	77.0642%
23	2.3135%	74.7508%
24	2.3545%	72.3963%
25	2.3963%	70.0000%
26	2.5422%	67.4578%
27	2.5873%	64.8705%
28	2.6332%	62.2373%
29	2.6799%	59.5574%
30	2.7274%	56.8300%
31	2.7758%	54.0542%
32	2.8250%	51.2292%
33	2.8751%	48.3540%
34	2.9261%	45.4279%
35	2.9780%	42.4499%
36	3.0309%	39.4190%
37	3.0846%	36.3344%
38	3.1393%	33.1950%
39	3.1950%	30.0000%
Initials:		
initials.	Lessor	Lessee
	TCDDOT	10000

<sup>\*</sup>The Principal, and the Outstanding Principal Balance as of any Rent Payment Date payment (assuming the principal payments due on each Rental Payment Date are paid when due), shall be equal to the Capitalized Lessor's Cost of the Equipment multiplied by the appropriate percentage derived from the above table.

## ANNEX F TO SCHEDULE NO. \_\_\_\_ DATED THIS \_\_\_\_ DAY OF \_\_\_\_, 199\_\_ TO MASTER LEASE AGREEMENT DATED AS OF December 30, 1996

RETURN PROVISIONS: In addition to the provisions provided for in

Section X of this Lease, and provided that Lessee has elected not to exercise its purchase option pursuant to Section XVIII(d) of the Lease, Lessee shall, at its expense:

- (a) at least one hundred eighty (180) days and not more than three hundred sixty-five (365) days prior to expiration or earlier termination of the Lease, provide to Lessor a detailed inventory of all components of the Equipment. The inventory should include, but not be limited to, a listing of models and serial numbers for all components comprising the Equipment;
- (b) at least one hundred eighty (180) days prior to expiration or earlier termination of the Lease, upon receiving reasonable notice from Lessor, provide or cause the vendor(s) or manufacturer(s) to provide to Lessor the following documents: (i) one set of service manuals, blueprints, process flow diagrams and operating manuals including replacements and/or additions thereto, such that all documentation is completely up-to-date; (ii) one set of documents, detailing Equipment configuration, operating requirements, maintenance records, and other mechanical data concerning the set-up and operation of the Equipment, including replacements and/or additions thereto, such that all documentation is completely up-to-date;
- (c) at least one hundred eighty (180) days prior to expiration or earlier termination of the Lease, upon receiving reasonable notice from Lessor, make the Equipment available for on-site operational inspections by potential purchasers, under power, and provide personnel, power and other requirements necessary to demonstrate electrical and mechanical systems for each item of the Equipment;
- (d) at least ninety (90) days prior to expiration or earlier termination of the Lease, cause the manufacturer's representative or qualified equipment maintenance provider, acceptable to Lessor (the "Authorized Inspector"), to perform a comprehensive physical inspection, including testing all material and workmanship of the Equipment and if during such inspection, examination and test, the Authorized Inspector finds any of the material or workmanship to be defective or the Equipment not operating within the manufacturer's specifications, then Lessee shall repair or replace such defective material and, after corrective measures are completed, Lessee will provide for a follow-up inspection of the Equipment by the Authorized Inspector as outlined in the preceding Paragraph;
- (e) have each item of Equipment returned with an in-depth field service report detailing said inspection as outlined in Subsection (d) above. The report shall certify that the Equipment has been properly inspected, examined and tested and is operating within the manufacturer's specifications;
- (f) permit Lessor to videotape the Equipment "under power" at Lessee's or at any facility where any Equipment is located at a time during normal working hours mutually agreeable to Lessor and Lessee prior to deinstallation;
- (g) have any repairs made to the Equipment in a professional and workmanlike manner. Any Equipment enhancements or additions will revert to Lessor upon expiration or earlier termination of the Lease and shall not affect, in an adverse manner, the Fair Market Value of the Equipment at Lease expiration. Such additions or enhancements shall be made only with prior written approval of Lessor (whose approval shall not unreasonably be withheld);

- (h) have the Equipment returned in good appearance with adequate protective coatings over all surfaces as originally painted or coated, and the Equipment shall be free from rust, and shall be in good, complete working order;
- (i) have the Equipment cleaned (including the removal of all beryllium) and approved by the necessary governmental agencies which regulate the use and operation of such Equipment so as to be available for immediate use;
- (j) properly remove all Lessee installed markings which are not necessary for the operation, maintenance or repair of the Equipment; and
- (k) provide for the deinstallation and packing of the Equipment to include, but not be limited to, the following: (i) all process fluids shall be removed from the Equipment and disposed of in accordance with the then current waste disposal laws and regulations. At no time are materials which could be considered hazardous waste by any regulatory authority to be shipped with machinery; (ii) all internal fluids such as lube oil and hydraulic fluid are to be filled to operating levels; filler caps are to be secured and disconnected hoses are to be sealed to avoid spillage; (iii) the manufacturer's representative shall deinstall and match mark all Equipment in accordance with the specifications of the manufacturer; (iv) the Equipment shall be packed properly and in accordance with the manufacturer's recommendations; (v) Lessee shall provide for the transportation of the Equipment in a manner consistent with the manufacturer's recommendations and practices to any locations within the United States of America as Lessor shall direct; and shall have the Equipment unloaded at such locations; and (vi) Lessee shall obtain and pay for a policy of transit insurance for the redelivery period in an amount equal to the replacement value of the Equipment, and Lessor shall be named as the loss payee on all such policies of insurance.

#### **EXHIBIT NO. 3**

## COMPLIANCE CERTIFICATE

To: National City Bank, for itself and as Agent for certain Participants 1900 East Ninth Street Cleveland, Ohio 44114 Subject: Master Lease Agreement, dated as of December 30, 1996, as amended, between National City Bank, for itself and as Agent for certain Participants, as lessor, and Brush Wellman Inc., as lessee (the "Lease Agreement") Greetings: Pursuant to Section IV(b)(iii) of the Lease Agreement and in my capacity as the chief financial officer of Brush Wellman Inc., I hereby certify that to the best of my knowledge and belief (capitalized terms used, but not defined herein shall have the meanings ascribed thereto in the Lease Agreement): 1. The financial statements of the Companies accompanying this letter are true and complete and fairly present in all Material respects their consolidated financial condition as of \_\_\_\_\_\_\_, \_\_\_\_\_ (the "Closing Date") and the consolidated results of their operations for the fiscal period then ending, 2. No Default or Potential Default under the Lease Agreement exists \*[except for those which, together with our intentions in respect thereof, are set forth in Exhibit One to this Certificatel, and 3. As indicated by the calculations below, the Companies are \*[not] in full compliance with Sections XXIII(a) through (d), inclusive. [\* - In (b) and (c), delete the bracketed language if inapplicable.] (a) The actual amount of the Companies' Tangible Net Worth at the Closing Date is equal to or is greater than the required amount. \$190,731,000 plus \$ 40% of \$ annual earnings accumulated from December 31, 1997 to the end of the preceding fiscal year (see Section XXIII(a))

(b) The Funded Indebtedness of the Companies does not exceed an amount equal to the Leverage Multiplier times the Companies' EBITDA for the four consecutive fiscal quarters most recently ended -- the Leverage Multiplier being (i) from April 1, 1999, to September 30, 1999, inclusive,

required amount

actual Tangible Net Worth as of the Closing Date

				January 1, 2000, to March 31, 2000, in the ser 31, 2000, inclusive, 3.25, and (vi) of	
	divided by	\$ \$ \$ \$		Funded Indebtedness EBITDA EBIT Depreciation Amortization	
	quotient				
				tive fiscal quarters most recently ende etermined on a consolidated basis.	d, to (ii) the aggregate
	ratio of			EBITDA EBIT Depreciation Amortization	
	to	\$		Interest Expense	
	ratio		to		
	he Companies' Tangil	ole Net Worth t	he Required M	to the Required Multiplier times the sultiplier being (i) from the date of the	
div	\$ ided by \$		Funded Inde Funded Inde	btedness btedness plus Tangible Net Worth	1
dno	tient				
			BRUSH W	ELLMAN INC.	
By: Title:					
			-2-		

## **EXHIBIT 21**

## **Subsidiaries of Registrant**

The Company has the following subsidiaries, all of which are wholly owned and included in the consolidated financial statements.

Name of Subsidiary	State or Country of Incorporation
Brush Wellman GmbH	Germany
Brush Wellman (Japan), Ltd.	Japan
Brush Wellman Limited	England
Brush Wellman (Singapore), Pte Ltd.	Singapore
Circuits Processing Technology Inc.	California
Technical Materials, Inc.	Ohio
Williams Advanced Materials Inc.	New York
Williams Advanced Materials Pte Ltd.	Singapore

## Exhibit 23

## **Consent of Independent Auditors**

We consent to the incorporation by reference in the following Registration Statements and Post-Effective Amendments of our report dated January 24, 2000, with respect to the consolidated financial statements and schedule of Brush Wellman, Inc. included in the Annual Report (Form 10-K) for the year ended December 31, 1999:

Registration Statement Number 333-63351 on Form S-8 dated September 14, 1998;

Registration Statement Number 333-63353 on Form S-8 dated September 14, 1998;

Registration Statement Number 333-63355 on Form S-8 dated September 14, 1998;

Registration Statement Number 333-63357 on Form S-8 dated September 14, 1998;

Registration Statement Number 333-52141 on Form S-8 dated May 5, 1998;

Registration Statement Number 33-28605 on Form S-8 dated May 5, 1989;

Registration Statement Number 2-90724 on Form S-8 dated April 27, 1984;

Post-Effective Amendment Number 3 to Registration Statement Number 2-64080 on Form S-8 dated April 22, 1983.

/s/ ERNST & YOUNG LLP

Cleveland, Ohio

March 29, 2000

## **EXHIBIT 24**

## POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each of the undersigned directors and officers of BRUSH WELLMAN INC., an Ohio corporation (the "Corporation"), hereby constitutes and appoints Gordon D. Harnett, Michael C. Hasychak and David Porter, and each of them, their true and lawful attorney or attorneys-in-fact, with full power of substitution and revocation, for them and in their names, place and stead, to sign on their behalf as a director or officer, or both, as the case may be, of the Corporation, an Annual Report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 on Form 10-K for the fiscal year ended December 31, 1999, and to sign any and all amendments to such Annual Report, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission granting unto said attorney or attorneys-in-fact, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as they might or could do in person, hereby ratifying and confirming all that said attorney or attorneys-in-fact or any of them or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, the undersigned have hereunto set their hands as of the 7th day of March, 2000.

/s/ Gordon D. Harnett	/s/ Joseph P. Keithley
Gordon D. Harnett, Chairman, President, Chief Executive Officer and Director (Principal Executive Officer)	Joseph P. Keithley, Director
/s/ Albert C. Bersticker	/s/ William P. Madar
Albert C. Bersticker, Director	William P. Madar, Director
/s/ Charles F. Brush, III	/s/ Robert M. McInnes
Charles F. Brush, III, Director	Robert M. McInnes, Director
/s/ David L. Burner	/s/ William R. Robertson
David L. Burner, Director	William R. Robertson, Director
/s/ David H. Hoag	/s/ John Sherwin, Jr.
David H. Hoag, Director	John Sherwin, Jr., Director
/s/ John D. Grampa	
John D. Grampa, Vice President Finance, Chief Financial Officer (Principal Accounting Officer)	

## **ARTICLE 5**

MULTIPLIER: 1,000

PERIOD TYPE	12 MOS
FISCAL YEAR END	DEC 31 1999
PERIOD START	JAN 01 1999
PERIOD END	DEC 31 1999
CASH	99
SECURITIES	0
RECEIVABLES	79,772
ALLOWANCES	1,744
INVENTORY	110,570
CURRENT ASSETS	224,255
PP&E	421,293
DEPRECIATION	265,604
TOTAL ASSETS	424,491
CURRENT LIABILITIES	99,424
BONDS	17,105
PREFERRED MANDATORY	0
PREFERRED	$\overset{\circ}{0}$
COMMON	22,517
OTHER SE	198,121
TOTAL LIABILITY AND EQUITY	424,491
SALES	455,707
TOTAL REVENUES	455,707
CGS	363,773
TOTAL COSTS	442,840
OTHER EXPENSES	2,391
LOSS PROVISION	(82)
INTEREST EXPENSE	4,173
INCOME PRETAX	6,385
INCOME TAX	(54)
INCOME CONTINUING	6,439
DISCONTINUED	0
EXTRAORDINARY	0
CHANGES	0
NET INCOME	6,439
EPS BASIC	\$0.40
EPS DILUTED	\$0.40

## **End of Filing**



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