

BRUSH WELLMAN INC

FORM 10-K (Annual Report)

Filed 3/31/1999 For Period Ending 12/31/1998

Address	17876 ST CLAIR AVE CLEVELAND, Ohio 44110
Telephone	216-486-4200
CIK	0000014957
Fiscal Year	12/31

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549 **FORM 10-K**

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934 [FEE REQUIRED]**

For the fiscal year ended December 31, 1998

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934 [NO FEE REQUIRED]**

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)

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

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

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. []

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 8, 1999 was approximately \$239,664,445.

As of March 8, 1999, there were 16,322,886 shares of Common Stock, par value \$1 per share, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the annual report to shareholders for the year ended December 31, 1998 are incorporated by reference into Parts I and II.

Portions of the proxy statement for the annual meeting of shareholders to be held on May 4, 1999 are incorporated by reference into Part III.

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 Year 2000 remediation projects, and the conclusion of pending litigation matters in accordance with the Company's expectation that there will be no materially adverse effects.

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, 1998 the Company had 2,187 employees.

The Company operates two primary business segments, 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, 1998 the All Other group had 183 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 1998, 72% of the Company's sales were from this segment (70% in 1997 and 78% in 1996). As of December 31, 1998 the Metal Systems Group had 1,492 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, energy systems and plastic molds.

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, 1998, 1997 and 1996 was \$81,199,000, \$78,662,000 and \$83,353,000, 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, 1998 will be filled during 1999.

Sales are made to approximately 3,600 customers. Government sales, principally subcontracts, accounted for about 2.4% of Metal Systems Group sales in 1998 as compared to 1.6% in 1997 and 1.6% in 1996. Sales outside the United States, principally to Western Europe, Canada and Asia, accounted for approximately 35% of Metal Systems Group sales in 1998, 34% in 1997 and 31% in 1996. Other segment reporting and geographic information set forth on page 25 in Note N to the consolidated financial statements in the annual report to shareholders for the year ended December 31, 1998 is incorporated herein by reference.

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 \$6,628,000 in 1998, \$5,531,000 in 1997 and \$6,383,000 in 1996. A staff of 39 scientists, engineers and technicians was employed in this effort during 1998. Some research and development projects were externally sponsored and expenditures related to those projects (approximately \$128,000 in 1998, \$170,000 in 1997 and \$166,000 in 1996) 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, Ceramic Products, and Circuits Processing Technology Inc. (CPT), a wholly-owned subsidiary of the Company. In 1998, 26% of the Company's sales were from this segment (29% in 1997 and 20% in 1996). As of December 31, 1998 the Microelectronics Group had 512 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.

Ceramic Products manufactures beryllium ceramics, powder metallurgy and component assemblies. Ceramic Products also produces thick film metalization through CPT. These products are used in wireless communications, automotive, medical and aerospace applications. General Ceramics Inc. is a domestic 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, 1998, 1997 and 1996 was \$11,606,000, \$15,292,000 and \$11,075,000, 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, 1998 will be filled during 1999.

Sales are made to approximately 1,200 customers. Government sales, principally subcontracts, accounted for less than 0.1% of Microelectronics Group sales in 1998, 1997 and 1996. Sales outside the United States, principally to Western Europe, Canada and Asia, accounted for approximately 25% of Microelectronics Group sales in 1998, 32% in 1997 and 24% in 1996. Other segment reporting and geographic information set forth on page 25 in Note N to the consolidated financial statements in the annual report to shareholders for the year ended December 31, 1998 is incorporated herein by reference.

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 \$2,037,000 in 1998, \$2,176,000 in 1997 and \$1,926,000 in 1996. A staff of 14 scientists, engineers and technicians was employed in this effort during 1998.

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 regulation for occupational exposure to beryllium at Department of Energy facilities. The Company currently is the subject of newspaper articles concerning the beryllium industry and chronic beryllium disease. These articles, and others similar to them, may exacerbate the regulatory 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

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.

CARMEL, NEW YORK - A 9,000 square foot facility on a 2.0 acre site for manufacturing services relating to non-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 set forth on page 33 in the annual report to shareholders for the year ended December 31, 1998 is incorporated herein by reference.

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 plant is expected to be fully operational in the third quarter of 1999. 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.

ITEM 3. LEGAL PROCEEDINGS

(A) ENVIRONMENTAL PROCEEDINGS.

PENDING CLAIMS. By letter dated October 14, 1998, the U.S. EPA notified the Company that it was a potentially responsible party under the Comprehensive, Environmental, Response, Compensation and Liability Act ("CERCLA") for the remediation of the Casmalia Resources Hazardous Waste Management Facility (the "Casmalia Disposal Site") in Santa Barbara, California. The alleged basis for the U.S. EPA's letter is that the Company was named as a waste generator "on one or more manifests for hazardous wastes sent to the Casmalia Disposal Site." In a subsequent letter, the U.S. EPA offered the Company a de minimis settlement to resolve its liability for \$122,650. The Company has joined with approximately 150 other de minimis parties to review the data and assumption underlying the U.S. EPA's offer and to negotiate changes to that offer.

By letter dated March 6, 1998, the U.S. EPA notified Egbert Corp., a subsidiary of the Company ("Egbert"), that it was a potentially responsible party under CERCLA for the remediation of the PCB Treatment Site in Kansas City, Kansas, and Kansas City, Missouri. The basis for the U.S. EPA's letter was the removal from the Egbert's facility in 1985 of 10 drums of oil, 22 drums of solids and 3 transformers manufactured by High Voltage Maintenance, which allegedly were shipped, at least in part, to the PCB Treatment Site. Egbert has requested High Voltage Maintenance to hold it harmless from any liability arising from this proceeding. To date, the U.S. EPA has identified approximately 1,800 PRPs for the PCB Treatment Site and has initiated the process of trying to allocate liability, including consideration of the issuance of de micromis and/or de minimis settlements to eligible parties. Egbert's expenses at the PCB Treatment Site will be affected by a number of uncertainties, including the method and extent of remediation, the percentage of waste disposed of at the PCB Treatment Site attributable to Egbert relative to that attributable to other parties, and the financial capabilities of the other PRPs, including High Voltage Maintenance.

The Company received a complaint on July 26, 1994 in Glidden Company et al. v. American Color and Chemical et al., No. 94-C-3970, filed in the United States District Court for the Eastern District of Pennsylvania. The initial plaintiffs are five companies that, pursuant to orders issued by the U.S. EPA under CERCLA, have been spending funds to secure, maintain and conduct an investigation of the Berks Landfill in Sinking Springs, Pennsylvania (the "Berks Site"). The plaintiffs are alleged to have disposed of wastes at the Berks Site, which operated from 1950 through October 1, 1986. As a result of six amended complaints, this case now has 14 plaintiffs and approximately 140 defendants, consisting of the former owners or operators of the Berks Site and some of the transporters and/or generators of waste disposed of at the Berks Site. The plaintiffs seek to recover their past and future costs pursuant to rights of contribution under CERCLA and the Pennsylvania Hazardous Sites Cleanup Act. Plaintiffs allege that they have spent approximately \$3 million to secure and maintain the Berks Site and to prepare a remedial investigation/feasibility study and a risk assessment. A voluntary allocation process is proceeding pursuant to a case management order. On March 31, 1998, the U.S. EPA issued an administrative order to 18 entities, but not to the Company, directing them to implement the remedy selected in the July 1997 Record of Decision. The Plaintiffs are negotiating with the U.S. EPA to implement the remedial action, which the U.S. EPA estimates to cost \$6.1 million. The Company has been advised by the U.S. EPA that it is considered by the agency to be a candidate for a de minimis settlement. The Company's expenses at the Berks Site will be affected by a

number of uncertainties, including the method and extent of remediation, the percentage of waste disposed of at the Berks Site attributable to the Company relative to that attributable to other parties, and the financial capabilities of the other PRPs.

On or about September 25, 1992, the Company was served with a third-party complaint alleging that the Company, along with 159 other third-party defendants, is jointly and severally liable under CERCLA, 42 U.S.C. Sections 9607(a) and 9613(b), for response costs incurred in connection with the clean-up of hazardous substances in soil and groundwater at the Douglassville Site (the "Douglassville Site") located in Berks County, Pennsylvania: United States of America v. Berks Associates Inc. et al. v. Aamco Transmissions et al., Case No. 91-4868, United States District Court for the Eastern District of Pennsylvania. Third-party complaints adding further parties have been subsequently filed. Prior to the commencement of litigation, the Company had responded to a request for information from the U.S. EPA by denying that it arranged to send any substances to the Douglassville Site. Although the Company has no documents in its own files relating to the shipment of any waste to the Douglassville Site, documents maintained by third-party plaintiffs suggest that 8,344 gallons of waste oil from the Company may have been taken there. According to a consultant retained by third-party plaintiffs, approximately 153 million gallons of waste were sent to the Douglassville Site. The Company participated in court-ordered settlement proceedings, which resulted in a de minimis settlement offer by the United States. The settlement obligates the Company to pay approximately \$15,000 in consideration for a release of liability from the U.S. EPA's past and future costs to clean up the Douglassville Site. A reopener clause in the settlement agreement may, if certain contingencies are met, require the Company to pay an additional \$10,000.

The Company was identified as one of the PRPs under CERCLA at the Spectron Superfund Site in Elkton, Maryland (the "Elkton Site"). The Company reached a settlement with 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 the fall, 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 has received no new information concerning when the U.S. EPA expects to complete its review and finalize the settlement.

The Company has advised the U.S. EPA and the Ohio Environmental Protection Agency that it was unable to meet the December 1997 deadline for achieving emission limitations for a solvent degreaser at its Elmore, Ohio plant. In 1998, the U.S. EPA issued an administrative order setting a revised deadline to install the solvent degreaser. Subsequently Brush Wellman determined that the degreaser could not meet quality requirements, and advised the U.S. EPA

that the degreaser project was being abandoned and that compliance would be achieved by alternative methods.

(B) BERYLLIUM EXPOSURE CLAIMS.

PENDING CLAIMS. The Company is currently a defendant in the following six product liability cases in which the plaintiffs allege injury resulting from exposure to beryllium and beryllium-containing materials, other than as employees of the Company, and are claiming recovery based on various legal theories. These cases were previously reported in the Company's annual report on Form 10-K for the year ended December 31, 1997 or in the Company's quarterly report on Form 10-Q for the quarters ended July 3, 1998 and October 2, 1998, respectively. Defense for each of the cases identified in the table below is being conducted by counsel selected by the Company and retained, with reservations of rights, by the Company's insurance carriers.

NAME OF PLAINTIFF	DATE ----- LAWSUIT ----- INSTITUTED	FORUM -----	RELIEF REQUESTED -----
Troy Murphy Morgan, Corky Dean McCarter and wife, Karen Denise Smith McCarter, Richard Emory Myers, Sr. and wife, Wilma Dean Kennedy Myers, and Kathlene Beatty	June 1994	United States District Court, Eastern District of Tennessee	The Company is one of several defendants, together with the United States. In the Fourth Amended Complaint (served in April 1997), plaintiffs' aggregate claims against the corporate defendants, including compensatory and punitive damages, are \$44 million.
George F. Faccio and Spouse	July 1995	United States District Court, District of Arizona	The Company is the only defendant. Plaintiffs seek compensatory and punitive damages of an unspecified amount.
Ballinger et al.	November 1996	United States District Court, Colorado	The Company is the only defendant. Plaintiffs seek compensatory and punitive damages of an unspecified amount.
Foster et al.	February 1997	United States District Court, Eastern District of Tennessee	The Company is one of several defendants. Gary Foster seeks compensatory damages from each corporate defendant of \$5 million. His spouse seeks compensatory damages from each defendant of \$1 million. Both plaintiffs seek punitive damages from each defendant of \$10 million.
Grant et al.	August 1997	United States District Court, Eastern District of Tennessee	The Company is one of several defendants. Mr. Grant seeks compensatory damages of \$5 million against each defendant. His spouse seeks compensatory damages of \$1 million against each defendant, and both seek punitive damages of \$10 million against each defendant.
McClaren et al.	September 1998	Superior Court of California, Orange County	The Company is one of several defendants. The plaintiffs seek compensatory and punitive damages in an unspecified amount.

Discovery is continuing in three of the six cases reported above: Morgan et al. v. Brush Wellman Inc. et al.; Foster et al. v. Brush Wellman Inc. et al.; and Grant et al. v. Brush Wellman Inc. et al. (USDC, Tennessee). In Faccio et al. v. Brush Wellman Inc. (USDC, Ariz.), discovery is also ongoing, and several discovery motions, some of which sought sanctions against the Company, have been filed. The motions seeking sanctions alleged that the Company, without substantial justification, failed to produce documentation within its possession and control in response to discovery requests. The Court has ruled on two of the plaintiffs' discovery motions, denying sanctions (it also denied the Company's request for sanctions against the plaintiffs). Several additional discovery motions were heard in January 1998, but the Court has not yet issued its order. The plaintiffs filed another motion in January 1998 seeking sanctions, and in October 1998 filed a motion arguing that the Company should be required to produce certain documents because the "crime-fraud" exception to the attorney-client privilege is applicable. The Company moved to strike the latter motion on the ground that plaintiffs had not complied with prefiling requirements for a motion of this kind; the motion to strike remains pending. To date, no trial date has been established.

Ballinger et al. v. Brush Wellman Inc. et al. (USDC, Colo.) was filed against the Company and one other defendant by 26 plaintiffs who allegedly have chronic beryllium disease ("CBD"), and their spouses, and one representative of a spouse who allegedly died from CBD (for a total of 43 plaintiffs). The defendants filed various motions in response to the complaint, including a motion to dismiss. Before a ruling on the motion to dismiss, an amended complaint was filed in September 1997 adding 7 plaintiffs who allegedly have CBD and their spouses (for a total of 14 additional plaintiffs). Various motions were again filed, including a motion to dismiss. Before a ruling was made on the motion to dismiss the amended complaint, a second amended complaint was filed in December 1997. One plaintiff and his spouse moved for dismissal of their claims without prejudice, which motion was granted. Also, in December 1997, the remaining plaintiffs agreed to dismiss the second defendant and filed an agreed motion for dismissal. The Court granted this second agreed motion on February 13, 1998. In response to the second amended complaint, on January 23, 1998, the Company moved to dismiss 47 of the 55 plaintiffs and answered as to the remaining 8 plaintiffs. On June 25, 1998, the Court denied the Company's motion to dismiss. The Company has now answered the second amended complaint and each of the parties has filed and served its initial disclosure statement. There are now a total of 55 plaintiffs: those who allegedly have CBD, their spouses and one representative of a spouse who allegedly died from CBD. Discovery has now commenced.

The Company is a defendant in a case filed on March 18, 1997 by a former employee and his spouse: Thomas Markham et al. v. Brush Wellman Inc. et al. (USDC, Ohio). The complaint alleged wrongful termination of employment and lack of consortium and included claims based upon exposure to hazardous materials. The Company filed an answer in May, 1997. Discovery is continuing. The case is scheduled for trial in November, 1999.

Nine Company employees and their spouses had filed lawsuits against the Company and certain of its employees in the Superior Court of Pima County, Arizona: Cole et al. v. Brush Wellman Inc. et al.; Cruz et al. v. Brush Wellman Inc. et al.; Haynes-Kern et al. v. Brush Wellman Inc. et al.; Matulin et al. v. Brush Wellman Inc. et al.; Fimbres et al. v. Brush Wellman Inc. et al.; Flores et al. v. Brush Wellman Inc. et al.; Kofira et al. v. Brush Wellman Inc. et al.; Maldonado et al. v. Brush Wellman Inc. et al.; and Stoecker et al. v. Brush Wellman Inc. et al. Six of these suits were instituted on June 29, 1994; one was instituted on December 13, 1994; and two were instituted on February 28, 1995. The plaintiffs claimed that, during their employment

with the Company, they contracted CBD as a result of exposure to beryllium and beryllium-containing products. The plaintiffs sought compensatory and punitive damages of an unspecified amount based on allegations that the Company intentionally misrepresented the potential danger of exposure to beryllium and breached an agreement to pay certain benefits should the plaintiffs contract CBD. These cases were initially dismissed by the trial court following a summary judgment order entered in favor of the Company. The plaintiffs appealed and on March 31, 1998, the Court of Appeals filed its decision, affirming in part and reversing in part the summary judgment entered by the trial court in favor of the Company. The Court of Appeals held that all of plaintiffs' common law claims -- breach of contract, breach of implied covenant of good faith and fair dealing and fraud -- were barred by the exclusivity of workers' compensation under Arizona statutory law. Thus, this portion of the summary judgment was affirmed. The Court of Appeals further held that, under Arizona law, a constitutionally protected claim for willful misconduct existed which was not waived by plaintiffs' acceptance of workers compensation benefits and that a question of fact existed as to whether that claim was barred by the statute of limitations. The Court made no ruling on whether there was any merit to any such claim by the plaintiffs. On April 15, 1998, the Company filed a motion for reconsideration with respect to that portion of the ruling that reversed the trial court. The Court of Appeals denied this motion. On April 15, 1998, the plaintiffs filed a motion for reconsideration with respect to their breach of contract and breach of implied covenant of good faith and fair dealing. The Court of Appeals denied this motion. On July 22 and 24, 1998, respectively, plaintiffs and the Company filed petitions with the Arizona Supreme Court for its review of the decision of the Court of Appeals. On February 25, 1999 the Arizona Supreme Court denied the Company's petition for review and granted the plaintiffs' cross-petition. A motion to reconsider the denial of the petition for review was filed on behalf of the Company on March 12, 1999. It remains pending. The Supreme Court has not yet scheduled oral argument of plaintiffs' cross-petition and plaintiffs' appeal remains pending before the Arizona Supreme Court.

On July 5, 1996, Rudy Gamez, an employee of the Company, also filed a suit in the Superior Court of Pima County, Arizona (Gamez et al. v. Brush Wellman Inc. et al.), based upon similar claims and seeking similar relief as in the previously described nine cases. On November 9, 1998, the Company moved for partial summary judgment with respect to the willful misconduct claim, and on December 9, 1998, the Company moved for dismissal or partial summary judgment with respect to the remaining claims for breach of contract and bad faith. On December 30, 1998, the Company also renewed an earlier motion for summary judgment with respect to all claims on the ground that plaintiff had accepted workers' compensation benefits. Oral argument on these motions took place on January 25, 1999; the court took the motions under advisement and they remain pending. The Court granted plaintiffs' motion to continue the trial, which had been set for March 2, 1999; no new date has been set.

In August 1994 and April 1995, the Company notified the State Compensation Fund, a workers' compensation fund in the State of Arizona, of the filing of certain of the above-mentioned employee suits and requested that the State Compensation Fund defend such suits pursuant to the Company's State Compensation Fund policies. The State Compensation Fund denied coverage and defense of such suits, but, after discussion indicated that it would defend some of the employee lawsuits under a reservation of rights. Pursuant to that commitment, the State Compensation Fund has reimbursed the Company for a substantial portion of the costs incurred by the Company in defending the first nine employee lawsuits noted above at the trial court level.

In view of the dispute with respect to coverage, however, the State Compensation Fund filed a declaratory judgment action against the Company and certain of its employees in the Superior Court of Pima County, Arizona, for which service of process occurred on August 21,

1995: State Compensation Fund v. Brush Wellman Inc. et al. The Company filed an answer and counterclaim to the effect that, among other things, the State Compensation Fund had a duty to defend and indemnify the Company. The Company sought an award of not only the costs of defending the underlying actions, but also the costs incurred with respect to the coverage, litigation and punitive damages. On May 13, 1996, the Court entered an order granting the State Compensation Fund's motions for partial summary judgment, which, among other things, sought a declaration of no duty to defend or indemnify the Company against claims for breach of contract and claims for intentional tort. These rulings did not completely dispose of the State Compensation Fund's claims and did not address the Company's counterclaim. As of September 1, 1996, the State Compensation Fund refused to reimburse the Company for any further defense costs that the Company might incur. The State Compensation Fund has also indicated that it plans to seek reimbursement of defense costs already paid. Further proceedings in this action have been stayed pending final disposition of the employees' appeals from the dismissal of their lawsuits by the Superior Court of Pima County, Arizona, in the underlying cases noted above.

In September 1995 and January 1996, the Company notified the Argonaut Insurance Company that it was requesting the defense of two of the aforementioned employee lawsuits. Argonaut denied coverage, and, in April 1996, it filed a declaratory judgment action against the Company and certain of its employees in the Superior Court of Pima County, Arizona: Argonaut Insurance Companies v. Brush Wellman Inc. et al. Subsequently, in September 1996, Argonaut and the Company agreed that Argonaut would dismiss its declaratory judgment action (with the right to refile it later), that they would not litigate any coverage issues between themselves until the State Compensation Fund's declaratory judgment action has been completely resolved and that both parties would be bound by the resolution of the coverage issues in the State Compensation Fund's declaratory judgment action.

An action was filed by the Arizona State Compensation Fund against the Company in Pima County Superior Court, Arizona, seeking a declaratory judgment that the Fund is not required to defend or indemnify the Company against claims made in the Whitaker case: State Compensation Fund v. Brush Wellman Inc., filed December 11, 1996. The parties have agreed to stay further proceedings in the case for a mutually agreed period of time. A draft settlement agreement and release have been circulated in this case and are currently under review by the parties.

CLAIMS INITIATED SINCE THE END OF THIRD QUARTER 1998. A complaint was filed in the United States District Court for the Eastern District of Tennessee by Jerry Lynn Hall and his wife Rose Mary Hall on February 24, 1999, against the Company and five other defendants: Ceradyne, Inc., General Ceramics, Inc., Cabot Corporation, NGK Metals Corporation and Cercom Quality Products, Inc. Also on February 24, 1999, the plaintiffs filed an amended complaint to include eight more defendants: SSG, Inc., Speedring, Inc., Spire Corporation, Lockheed Martin Beryllium Corporation, Manufacturing Sciences Corporation, Microtechnologies Inc., The Perkin-Elmer Corporation and Starmet Corp. Plaintiff Jerry Lynn Hall alleges injury from exposure to beryllium and/or beryllium containing products sold by the Company. The claims against the corporate defendants include theories of products liability (under the Tennessee Products Liability Act), strict liability, failure to warn (both intentionally and negligently), breach of implied warranty; plaintiff Rose Mary Hall alleges loss of consortium. Plaintiff Jerry Lynn Hall is suing each defendant for compensatory damages in the amount of \$5 million; his wife is seeking compensatory damages from each defendant in the amount of \$1 million. Both plaintiffs seek \$10 million in punitive damages from each corporate defendant.

A complaint was filed in the United States District Court for the Eastern District of Tennessee by Mack Orick and his wife Ann Orick on October 21, 1998, against the Company and eight other defendants: Ceradyne, Inc., General Ceramics, Inc., Cabot Corporation, NGK Metals Corporation, Lockheed Martin Beryllium Corporation, Cercom Quality Products, Inc., Starmet Corp., and the United States of America. On December 16, 1998, plaintiffs filed a motion to amend the complaint to include five more defendants: SSG, Inc., Speedring, Inc., Spire Corporation, Manufacturing Sciences Corporation, and The Perkin-Elmer Corporation. Plaintiff Mack Orick alleges injury from exposure to beryllium and/or beryllium containing products sold by the Company. The claims against the corporate defendants include theories of products liability (under the Tennessee Products Liability Act), strict liability, failure to warn (both intentionally and negligently), breach of implied warranty; plaintiff Ann Orick alleges loss of consortium. Plaintiff Mack Orick is suing each defendant for compensatory damages in the amount of \$5 million; his wife is seeking compensatory damages from each defendant in the amount of \$1 million. Both plaintiffs seek \$10 million in punitive damages from each corporate defendant. The United States filed a motion to dismiss on December 28, 1998 that remains pending. The Company filed an answer to the complaint on January 12, 1999.

CLAIMS CONCLUDED SINCE THE END OF THIRD QUARTER 1998. Wallace et al. v. Brush Wellman Inc. et al.: This action has been settled. The insurance company has paid the settlement amount, however, the workers' compensation carriers have not yet signed their releases and, therefore, the case remains pending.

On December 19, 1997, the Company was named a defendant in a product liability case filed in the Court of Common Pleas, Philadelphia County, Pennsylvania: Frank Corvino et al. v. Cabot Corp. et al. In the complaint, Mr. Corvino alleged that he suffered injury (including CBD) resulting from exposure to beryllium dust and fibers emitted from a plant operated by defendants Cabot Corporation and NGK in the vicinity of his place of work. Mr. Corvino also alleged that he suffered injury as a result of exposure to beryllium supplied to his employers. The complaint included claims for negligence, product liability and loss of consortium. The court dismissed the complaint based on preliminary objections but permitted plaintiffs to file an amended complaint. The amended complaint was filed on August 31, 1998. The Company and Cabot each filed cross-claims against each other. Since that time, the parties have agreed to settle the action, but the settlement amount has not yet been paid and dismissal has not yet been effected. The dismissal is expected to include dismissal of the cross-claims.

(C) ASBESTOS EXPOSURE CLAIMS.

Egbert is a co-defendant in fifteen cases making claims for asbestos-induced illness allegedly relating to the former operations of Egbert, then known as The S.K. Wellman Corp. Egbert is one of a large number of defendants in each case. The plaintiffs seek compensatory and punitive damages, in most cases of unspecified sums. Each case has been referred for defense pursuant to liability insurance coverage and has been accepted for defense without admission or denial of carrier liability. Two hundred fifty-three similar cases previously reported have been dismissed or disposed of by pretrial judgment, one by jury verdict of no liability and fourteen others by settlement for nominal sums.

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 expenses of defense, and Egbert, Pneumo Abex Corporation and the insurers share payment of settlements and/or judgments. In the pending cases, both expenses of defense and payment of settlements and/or judgments are subject to a separate reimbursement agreement under which a successor of the company that purchased Egbert's operating assets in 1986 has certain limited obligations to Egbert.

(D) OTHER MISCELLANEOUS PENDING CLAIMS.

The Company and Abtrex Industries ("Abtrex") are defendants in a personal injury case filed in the Court of Common Pleas for Cuyahoga County, Ohio, in September, 1998, by three employees of Abtrex and their spouses:

Janisse et al. v. Brush Wellman Inc. et al. Each of the plaintiffs seeks compensatory damages in excess of \$25,000 and punitive damages in excess of \$25,000 relating to an alleged acid spill at one of the Company's facilities. The Company filed an answer and cross claim to the complaint in October, 1998. The case is scheduled for trial in November, 1999.

A subsidiary of the Company, Technical Materials, Inc. ("TMI"), and an employee of TMI are defendants in a case filed in the Superior Court of the State of Rhode Island on October 15, 1997: Handy & Harman Electronic Materials Corporation v. Technical Materials, Inc. et al. The complaint alleged that TMI tortuously induced the employee to breach his confidentiality obligations to his former employer, the plaintiff, and misappropriated trade secrets of the plaintiff. The plaintiff seeks preliminarily and permanently to enjoin TMI from using any confidential information obtained by the employee while he was employed with the plaintiff, and compensatory and punitive damages of unspecified amounts.

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

None.

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	56	Chairman of the Board, President, Chief Executive Officer and Director
Michael D. Anderson	47	Vice President, Beryllium Products
Brian J. Derry	53	Vice President, Operations
Stephen Freeman	52	Vice President, Alloy Products
Jordan P. Frazier	41	General Manager, Ceramic Products
John D. Grampa	51	Vice President, Finance
Michael C. Hasychak	45	Treasurer and Secretary
Alfonso T. Lubrano	49	President, Technical Materials, Inc.
John J. Paschall	61	President, Williams Advanced Materials Inc.
Andrew J. Sandor	59	Vice President, Alloy Technology
William R. Seelbach	50	President, Alloy Products
Daniel A. Skoch	49	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 appointed General Manager, Ceramic Products in 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 Vice President, Alloy Products effective 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 in 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 Treasurer and Secretary in 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 8, 1999 there were 2,327 shareholders of record. Information as to stock price and dividends declared set forth on page 26 in Note O to the consolidated financial statements in the annual report to shareholders for the year ended December 31, 1998 is incorporated herein by reference. 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 on page 10 of the annual report to shareholders for the year ended December 31, 1998 is incorporated herein by reference.

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

AND RESULTS OF OPERATIONS

The management's discussion and analysis of financial condition and results of operations on pages 28 through 34 of the annual report to shareholders for the year ended December 31, 1998 is incorporated herein by reference.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

The market risk disclosures on page 34 of the annual report to shareholders for the year ended December 31, 1998 are incorporated herein by reference.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The report of independent auditors and the following consolidated financial statements of the Company included in the annual report to shareholders for the year ended December 31, 1998 are incorporated herein by reference:

Consolidated Balance Sheets - December 31, 1998 and 1997.

Consolidated Statements of Income - Years ended December 31, 1998, 1997 and 1996.

Consolidated Statements of Shareholders' Equity - Years ended December 31, 1998, 1997 and 1996.

Consolidated Statements of Cash Flows - Years ended December 31, 1998, 1997 and 1996.

Notes to Consolidated Financial Statements.

Quarterly Data on page 26 of the annual report to shareholders for the years ended December 31, 1998 and December 31, 1997 is incorporated herein by reference.

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 under Election of Directors on pages 2 through 6 of the Proxy Statement dated March 15, 1999 is incorporated herein by reference. Information with respect to Executive Officers of the Company is set forth earlier on pages 15 through 17 of this Form 10-K annual report.

ITEM 11. EXECUTIVE COMPENSATION

The information under Executive Officer Compensation on pages 9 through 14 of the Proxy Statement dated March 15, 1999 is incorporated herein by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND

MANAGEMENT

The information under Common Stock Ownership of Certain Beneficial Owners, Directors and Management on pages 7 and 8 of the Proxy Statement dated March 15, 1999 is incorporated herein by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Not applicable.

PART IV

**ITEM 14. EXHIBITS, FINANCIAL STATEMENT SCHEDULES AND REPORTS ON
FORM 8-K**

(A) 1. FINANCIAL STATEMENTS AND SUPPLEMENTAL INFORMATION

Included in Part II of this Form 10-K annual report by reference to the annual report to shareholders for the year ended December 31, 1998 are the following consolidated financial statements:

Consolidated Balance Sheets - December 31, 1998 and 1997.

Consolidated Statements of Income - Years ended December
31, 1998, 1997 and 1996.

Consolidated Statements of Shareholders' Equity - Years
ended December 31, 1998, 1997 and 1996.

Consolidated Statements of Cash Flows - Years ended
December 31, 1998, 1997 and 1996.

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, 1998, 1997 and 1996 is submitted herewith:

Schedule II - Valuation and qualifying accounts.

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), 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), 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.

(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), 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.
- (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), 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), incorporated herein by reference.
- (10c)* Form of Employment Agreement entered into by the Company and Messrs. Anderson, Frazier, Grampa, Hasychak, Lubrano and Paschall on March 2, 1999.
- (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), 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), 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), 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), incorporated herein by reference.
- (10l) 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), incorporated herein by reference.
- (10m)* Directors' Retirement Plan as amended January 26, 1993 (filed as Exhibit 10i to the Company's Form 10-K Annual Report for the year ended December 31, 1992), incorporated herein by reference.
- (10n)* 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.
- (10o)* 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), incorporated herein by reference.
- (10p)* 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), incorporated herein by reference.
- (10q)* 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), incorporated herein by reference.
- (10r)* 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), incorporated herein by reference.

- (10s)* Amendment Number 3, adopted May 5, 1998, to Supplemental Retirement Benefit Plan as amended and restated December 1, 1992.
- (10t)* Amendment Number 4, adopted December 1, 1998, to Supplemental Retirement Benefit Plan as amended and restated December 1, 1992.
- (10u)* Amendment Number 5, adopted December 31, 1998, to Supplemental Retirement Benefit Plan as amended and restated December 1, 1992.
- (10v)* 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), incorporated herein by reference.
- (10w)* Key Employee Share Option Plan (filed on Form S-8 on May 5, 1998), incorporated herein by reference.
- (10x)* 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.
- (10y)* 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.
- (10z)* 1989 Stock Option Plan (filed as Exhibit 4.5 to Registration Statement No. 33-28605), incorporated herein by reference.
- (10aa)* 1990 Stock Option Plan for Nonemployee Directors (filed as Exhibit 4.6 to Registration Statement No. 33-35979), incorporated herein by reference.
- (10bb)* 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.
- (10cc) 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.

- (10dd) 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.
 - (10ee) 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.
 - (10ff) 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.
 - (10gg)* 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.
 - (13) Portions of the Annual Report to shareholders for the year ended December 31, 1998.
 - (21) Subsidiaries of the registrant.
 - (23) Consent of Ernst & Young LLP.
 - (24) Power of Attorney.
 - (27.1) Financial Data Schedule 1998.
 - (27.2) Financial Data Schedule 1997 Restated.
 - (27.3) Financial Data Schedule 1996 Restated.
-

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

(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, 1998.

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 31, 1999

BRUSH WELLMAN INC.

By: /s/Gordon D. Harnett

Gordon D. Harnett
Chairman of the Board,
President and Chief Executive Officer

By: /s/John D. Grampa

John D. Grampa
Vice President, Finance

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.

GORDON D. HARNETT* ----- Gordon D. Harnett*	Chairman of the Board, President, Chief Executive Officer and Director (Principal Executive Officer)	March 31, 1999
JOHN D. GRAMPA ----- John D. Grampa	Vice President, Finance (Principal Financial and Accounting Officer)	March 31, 1999
ALBERT C. BERSTICKER* ----- Albert C. Bersticker*	Director	March 31, 1999
CHARLES F. BRUSH, III* ----- Charles F. Brush, III*	Director	March 31, 1999
DAVID L. BURNER* ----- David L. Burner*	Director	March 31, 1999
DAVID H. HOAG * ----- David H. Hoag*	Director	March 31, 1999
JOSEPH P. KEITHLEY * ----- Joseph P. Keithley*	Director	March 31, 1999
WILLIAM P. MADAR* ----- William P. Madar*	Director	March 31, 1999
ROBERT M. McINNES* ----- Robert M. McInnes*	Director	March 31, 1999
WILLIAM R. ROBERTSON * ----- William R. Robertson*	Director	March 31, 1999
JOHN SHERWIN, JR.* ----- John Sherwin, Jr.*	Director	March 31, 1999

*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.

By: /s/JOHN D. GRAMPA

John D. Grampa
Attorney-in-Fact

March 31, 1999

SCHEDULE II - VALUATION AND QUALIFYING ACCOUNTS

BRUSH WELLMAN INC. AND SUBSIDIARIES

YEARS ENDED DECEMBER 31, 1998, 1997 AND 1996

COL. A	COL. B	COL. C		COL. D	COL. E
DESCRIPTION	Balance at Beginning of Period	ADDITIONS		Deduction-Describe	Balance at End of Period
		(1) Charged to Costs and Expenses	(2) Charged to Other Accounts-Describe		
Year ended December 31, 1998					
Deducted from assets accounts:					
Allowance for doubtful accounts receivable	\$1,058,663	\$1,090,170	\$0	\$ 21,833 (A)	\$2,127,000
Inventory reserves and obsolescence	\$2,054,938	\$ 907,438	\$0	\$1,222,283 (B)	\$1,740,093
Year ended December 31, 1997					
Deducted from assets accounts:					
Allowance for doubtful accounts receivable	\$ 954,289	\$ 143,666	\$0	\$ 39,292 (A)	\$1,058,663
Inventory reserves and obsolescence	\$1,717,795	\$2,816,498	\$0	\$2,479,355 (B)	\$2,054,938
Year ended December 31, 1996					
Deducted from assets accounts:					
Allowance for doubtful accounts receivable	\$1,014,704	\$ 29,455	\$0	\$ 89,870 (A)	\$ 954,289
Inventory reserves and obsolescence	\$1,600,000	\$2,656,779	\$0	\$2,538,984 (B)	\$1,717,795

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

Note B - Inventory write-off.

THIRD AMENDMENT TO AMENDED AND RESTATED CREDIT AGREEMENT

THIS THIRD AMENDMENT TO AMENDED AND RESTATED CREDIT AGREEMENT,

dated as of January 26, 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 and as amended by a Second Amendment to Amended and Restated Credit Agreement dated September 2, 1997 (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", "hereto", "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	27.28%	National City Bank
\$10,000,000	18.18%	Fifth Third Bank, Northeastern Ohio
\$10,000,000	18.18%	NBD Bank
\$10,000,000	18.18%	Bank One, NA
\$10,000,000	18.18%	Harris Trust and Savings Bank
-----		-----
\$55,000,000		Total"

(B) Subsections 2A.02 and 2A.05 of the Credit Agreement shall be amended by deleting the references therein to "April 30, 2000" and inserting in lieu thereof "January 25, 2002."

(C) Subsection 2A.04(b) of the Credit Agreement shall be amended by deleting the same and substituting in lieu thereof the following:

"(b) computed (in accordance with subsection 8.10) at the Applicable Rate set forth below that corresponds to the ratio set forth below (the "Applicable Rate"). As used herein, "Applicable Rate" means the following per annum percentage:

If the Ratio of the Companies' Funded Indebtedness to the Companies' EBITDA is:	The Applicable Rate is:
Greater than or equal to 4.50 to 1.00	0.50%
Less than 4.50 to 1.00, but greater than or equal to 4.00 to 1.00	0.45%
Less than 4.00 to 1.00, but greater than or equal to 3.50 to 1.00	0.375%
Less than 3.50 to 1.00, but greater than or equal to 3.00 to 1.00	0.275%
Less than 3.00 to 1.00, but greater than or equal to 2.50 to 1.00	0.20%
Less than 2.50 to 1.00, but greater than or equal to 2.00 to 1.00	0.175%
Less than 2.00 to 1.00	0.15%

(i) Initially, from January 26, 1999, until changed hereunder in accordance with the following provisions, the Applicable Rate will be 0.50% per annum. Commencing with the fiscal quarter of Borrower ending on or nearest to March 31, 1999, and continuing with each fiscal quarter thereafter, NCB-Agent will determine the Applicable Rate 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 Rate based upon changes in such ratio shall become effective on the first day of the month following the receipt by NCB-Agent pursuant to subsection 3A.01(a) or (b) of the financial statements of Borrower and its Subsidiaries, accompanied by the certificate and calculations referred to in subsection 3A.02(c), 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.

(ii) Notwithstanding the above provisions, during any period when an Event of Default has occurred and is continuing, the Applicable Rate 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 3A.01(a) or (b), accompanied by the certificate and calculations referred to in subsection 3A.01(c), the Applicable Rate 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.

(iii) Any changes in the Applicable Rate shall be determined by NCB-Agent in accordance with the above provisions and NCB-Agent will promptly provide notice of such determinations to Borrower and the Banks. Any such determination by NCB-Agent pursuant to the above provisions shall be conclusive and binding absent manifest error. The Applicable Rate is subject in all respects to compliance by Borrower with subsection 3B.02 of this Agreement, and this schedule of levels for the Applicable Rate is not intended to waive or otherwise excuse a violation of subsection 3B.02 of this Agreement."

(D) Subsection 2B.09 of the Credit Agreement shall be amended by deleting the same and substituting in lieu thereof the following:

"2B.09 INTEREST: FIXED-RATE LOANS. The principal of and overdue interest on each Fixed-Rate Loan shall bear interest computed (in accordance with subsection 8.10) and payable as follows:

(a) Prior to Maturity, each LIBOR Loan shall bear interest with respect to any Contract Period commencing on or after January 26, 1999, at a rate equal to the LIBOR Rate in effect at the start of the applicable Contract Period plus the Applicable Margin indicated below (the "Applicable Margin") in effect at the start of the applicable Contract Period. As used herein, "Applicable Margin" means the following per annum percentage:

If the Ratio of the Companies' Funded Indebtedness to the Companies' EBITDA is:	The Applicable Margin is:
Greater than or equal to 4.50 to 1.00	1.50%
Less than 4.50 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	1.00%
Less than 3.50 to 1.00, but greater than or equal to 3.00 to 1.00	0.75%
Less than 3.00 to 1.00, but greater than or equal to 2.50 to 1.00	0.55%
Less than 2.50 to 1.00, but greater than or equal to 2.00 to 1.00	0.50%
Less than 2.00 to 1.00	0.40%

(i) Initially, from January 26, 1999, until changed hereunder in accordance with the following provisions, the Applicable Margin will be 1.50% per annum. Commencing with the fiscal quarter of Borrower ending on or nearest to March 31, 1999, and continuing with each fiscal quarter thereafter, NCB-Agent 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 NCB-Agent pursuant to subsection 3A.01(a) or (b) of the financial statements of Borrower and its Subsidiaries, accompanied by the certificate and calculations referred to in subsection 3A.02(c), 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.

(ii) 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 3A.01(a) or (b), accompanied by the certificate and calculations referred to in subsection 3A.01(c), 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.

(iii) Any changes in the Applicable Margin shall be determined by NCB-Agent in accordance with the above provisions and NCB-Agent will promptly provide notice of such determinations to Borrower and the Banks. Any such determination by NCB-Agent pursuant to the above provisions shall be conclusive and binding absent manifest error. The Applicable Margin is subject in all respects to compliance by Borrower with subsection 3B.02 of this Agreement, and this schedule of levels for the Applicable Margin is not intended to waive or otherwise excuse a violation of subsection 3B.02 of this Agreement.

(b) Prior to Maturity, each Competitive Loan shall bear interest at a rate equal to the Competitive Bid Rate.

(c) After Maturity (whether occurring by lapse of time or by acceleration), each Fixed-Rate Loan shall bear interest computed and payable in the same manner as set forth in subsection 2B.08(b) for Prime Rate Loans, EXCEPT that in no event shall any Fixed-Rate Loan bear interest after Maturity at a lesser rate than that applicable thereto immediately before Maturity.

(d) Interest on each Fixed-Rate Loan shall be payable in arrears on the last day of the Contract Period applicable thereto and at Maturity and, in the case of any Contract Period having a term longer than ninety (90) days or three (3) months, as the case may be, shall also be payable every ninety (90) days (in the case of Competitive Loans) and every three (3) months (in the case of LIBOR Loans) after the first day of the Contract Period."

(E) 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 the date of this Agreement to March 31, 1999, inclusive, 4.75, (ii) from April 1, 1999, to June 30, 1999, inclusive, 4.50, (iii) from July 1, 1999, to September 30, 1999, inclusive, 4.00, (iv) from October 1, 1999, to December

31, 1999, inclusive, 3.75, (v) from January 1, 2000, to March 31, 2000, inclusive, 3.25, and (vi) on and after April 1, 2000, 3.00."

(F) Exhibits A and E to the Credit Agreement are hereby deleted and Exhibits A and E attached to this Amendment are substituted in lieu thereof, respectively.

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 (a) KeyBank National Association will no longer be a Bank that is a party to the Credit Agreement, and (b) Fifth Third Bank, Northeastern Ohio 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 \$27,500, 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.

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

Address: 17876 St. Clair Avenue
Cleveland, Ohio 44110

BRUSH WELLMAN INC.

By: /s/ M.C. Hasychak

Title: Treasurer & Secretary

Address: Large Corporate Division
Deliveries: 1900 East Ninth Street
Cleveland, Ohio 44114-3484
Fax: (216) 575-9396

NATIONAL CITY BANK,
for itself and as Agent

By: /s/ Jeffery C. Douglas

Title: Vice President and Senior
Lending Officer

Mail: Large Corporate Division
P.O. Box 5756
Cleveland, Ohio 44101

Address: 1404 East Ninth Street
Cleveland, Ohio 44114

FIFTH THIRD BANK, NORTHEASTERN
OHIO

By: /s/ James P. Byrnes

Title: Vice President

Address: 611 Woodward
Detroit, Michigan 48226

BANK ONE, NA

By:

Title:

Address: P.O. Box 755 (111/10W)
Chicago, Illinois 60690-0755

HARRIS TRUST AND SAVINGS BANK

By: /s/ Peter Krawchuk

Title: Vice President

Address:

NBD BANK

611 Woodward
Detroit, Michigan 48226

By: /s/ Patrick E. Dunphy

Title: Vice President

EXHIBIT A

EXTENSION REQUEST

Subject: Extension of Subject Commitments under Amended and Restated Credit Agreement dated as of December 13, 1994, as amended

Greetings:

Reference is made to the Amended and Restated Credit Agreement by and among you, the undersigned ("Borrower") and National City Bank as your agent (the "Credit Agreement") which provides for, among other things, Subject Commitments aggregating up to \$55,000,000 and available to Borrower, upon certain terms and conditions, on a revolving basis until _____, 20__ (the "Expiration Date" now in effect) subject, however, to earlier reduction or termination pursuant to the Credit Agreement.

Borrower hereby requests that the Credit Agreement be amended by deleting the date " _____, 20__ " from subsection 2A.02 (captioned "Term") and by substituting for that deleted date the date " _____, 20__ ".

In all other respects the Credit Agreement shall remain in full effect.

This letter has been executed and delivered to each of you in triplicate. If you assent to the extension, kindly send two copies of your assent to your agent who will, if the extension becomes effective, forward one such copy to Borrower and inform you of the extension.

BRUSH WELLMAN INC.

By:
Printed Name:

Title:

The undersigned hereby each assent to the foregoing.

National City Bank

Bank One, NA

By: _____

By: _____

Printed Name: _____

Printed Name: _____

Title: _____

Title: _____

Fifth Third Bank, Northeastern Ohio

Harris Trust and Savings Bank

By: _____

By: _____

Printed Name: _____

Printed Name: _____

Title: _____

Title: _____

EXHIBIT E

COMPLIANCE REPORT

_____, 19__

To: National City Bank

Subject: Amended and Restated Credit Agreement dated as of December 13, 1994,
as amended, with the Banks that are parties thereto and National
City Bank as agent (the "Credit Agreement")

Greetings:

Pursuant to subsection 3A.01 of the subject Credit 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

(a) 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,

(b) no Default under the Credit Agreement exists *[except for those which, together with our intentions in respect thereof, are set forth in Exhibit One to this letter] and

(c) as indicated by the calculations below, the Companies are *[not] in full compliance with subsections 3B.01 through 3B.04, both inclusive.

[* - In (b) and (c), delete the bracketed language if inapplicable.]

3B.01 The actual amount of the Companies' TANGIBLE NET WORTH at the Closing Date is equal to or is greater than the required amount.

plus	\$155,000,000 \$_____ 40% of	\$_____	annual earnings accumulated from December 31, 1994 to the end of the preceding fiscal year (see Section 3B.01)
sum	\$_____	required amount	
	\$_____	actual Tangible 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 the date of this Agreement to March 31, 1999, inclusive, 4.75, (ii) from April 1, 1999, to June 30, 1999, inclusive, 4.50, (iii) from July 1, 1999, to September 30, 1999,

inclusive, 4.00, (iv) from October 1, 1999, to December 31, 1999, inclusive, 3.75, (v) from January 1, 2000, to March 31, 2000, inclusive, 3.25, and (vi) on and after April 1, 2000, 3.00.

	\$ _____	Funded Indebtedness
divided by	\$ _____	EBITDA
	\$ _____	EBIT
	\$ _____	Depreciation
	\$ _____	Amortization
quotient	_____	

3B.03 [Intentionally Omitted]

3B.04 The actual INTEREST COVERAGE RATIO is greater than the minimum factor (5:00 to 1:00) required, the Interest Coverage being a factor equal to the quotient of the sum of items (a), (b) and (c) below divided by item (b).

	(a) \$ _____	Net Income
plus	(b) \$ _____	interest expense (including any required capitalized interest)
plus	(c) \$ _____	income taxes
sum	(d) \$ _____	total
quotient	(e) _____	Actual Interest Coverage--(d)/(b)

3B.05 The actual FUNDED DEBT of the Companies is equal to or less than the maximum factor permitted, namely, 0.5 through December 31, 2000, and 0.45 on and after January 1, 2001-- the Funded Debt being a factor equal to the quotient of Funded Indebtedness divided by Funded Indebtedness plus Tangible Net Worth.

	\$ _____	Funded Indebtedness
divided by	\$ _____	Funded Indebtedness plus Tangible Net Worth
quotient	_____	Actual Funded Indebtedness

BRUSH WELLMAN INC.

By:

Title:

Exhibit 10(c)

EMPLOYMENT AGREEMENT

This EMPLOYMENT AGREEMENT (this "Agreement"), entered into this ____ day of _____, 1999, 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 three 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 March 2, 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.

(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 that would be considered "contingent on a change in ownership or control" (as defined in Section 280G of the Code) of the

Company, would, after taking into account Section VIII, equal or exceed an amount equal to two times the "base amount" (as defined in Section 280G of the Code) of the Executive, such compensation, other payments, and other receipts shall be reduced to the largest amount as will result in no portion of such compensation, other payments, or other receipts being equal to or exceeding an amount equal to two times the "base amount" (as defined in Section 280G of the Code) of the Executive. 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 foregoing, 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:

Brush Wellman Inc.
17876 St. Clair Avenue
Cleveland, Ohio 44110

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. 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.

XVI. 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.

XVII. 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.

XVIII. 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:

THE EXECUTIVE

[Name of Executive]

EXHIBIT 10(s)

**AMENDMENT NO. 3
TO
BRUSH WELLMAN INC. SUPPLEMENTAL RETIREMENT BENEFIT PLAN
(December 1, 1992 Restatement)**

Brush Wellman Inc., an Ohio corporation, hereby adopts this Amendment No. 3 to the Brush Wellman Inc. Supplemental Retirement Benefit Plan (December 1, 1992 Restatement) (the "Plan").

I.

Sections 4.1 and 4.2 of the Plan are amended by adding to such sections immediately following the phrase "did not exist" in each place such phrase appears therein the following: "and the Brush Wellman Inc. Key Employee Share Option Plan did not exist".

II.

Section 6.2 of the Plan is amended by adding at the end thereof the following: Notwithstanding the foregoing provisions of this Section 6.2: No compensation reduction elections or credits to any Supplemental Savings Plan Account pursuant to the first paragraph of this Section 6.2 shall occur with respect to any Limitation Measuring Period beginning after December 31, 1998.

III.

Article VI of the Plan is amended by adding at the end thereof the following:

Section 6.6 -- Special Election

Notwithstanding any other provision of the Plan to the contrary, except Section 9.5 (as contemplated in this Section 6.6), each of Carl Cramer, Brian Derry, Stephen Freeman, Hugh Hanes, Craig Harlan, Gordon Harnett, Alphonso Lubrano, John Paschall, Andrew Sandor, and Daniel Skoch, may elect to forego all rights and benefits under the Plan with respect to his Supplemental Savings Plan Account in consideration of an award of "Options", as defined in the Brush Wellman Inc. Key Employee Share Option Plan (the "KESOP"), in accordance with the following and such rules and procedures as may be established by the Committee consistent with the following:

(i) Such election may be made only by delivery during a period occurring in 1998, which period shall begin and shall end prior to the effective date of the election, by the Participant to the Company of a written election on a form prescribed therefor by the Committee, which form shall be substantially in the form of Exhibit I attached hereto and made a part hereof;

(ii) In the case of a Participant who makes the election provided for under this Section 6.6, neither the Participant, the Participant's Beneficiary, nor any other person claiming through or under the Participant shall thereafter have any rights under or with respect to Article VI of the Plan and all provisions of the Plan shall be construed, interpreted, and applied accordingly;

(iii) In the case of a Participant who makes the election provided for under this Section 6.6 and who would have credits to his Supplemental Savings Plan Account occur under Section 6.2 after the effective date of such election without regard to this Section 6.6, such credits shall not occur but such Participant's Excess Credited Compensation shall be reduced without regard to the election under this Section 6.6;

(iv) The provisions of this Section 6.6 shall not result in any right of a Participant to receive Excess Credited Compensation that such Participant has elected to reduce;

(v) The terms and conditions of Options awarded under the KESOP in respect of any election under this Section 6.6 shall be determined under the KESOP;

(vi) Such election shall include a consent to Amendment No. 3 to the Plan in accordance with Section 9.5 of the Plan and a consent under the Trust Agreement for Brush Wellman Inc. Supplemental Retirement Benefit Plan dated January 8, 1993 (the "Trust Agreement"), to Amendment No. 1 to the Trust Agreement,

which Amendment No. 1 to the Trust Agreement provides for return to the Company of any assets of the Participant's separate account(s) under the Trust Agreement;

(vii) Such election shall be irrevocable after delivery thereof to the Company, and such election shall (except as otherwise provided in clause (viii) below) become effective upon delivery thereof to the Company; and

(viii) Notwithstanding the foregoing provisions of this Section 6.6, if the employment with the Controlled Group of any Participant described in this

Section 6.6 shall terminate prior to the effective date of his election made pursuant to this Section 6.6 the provision of this Section 6.6 shall not apply with respect to such Participant and any election of such Participant made pursuant to this Section 6.6 shall be void ab initio.

IV.

Sections 4.1 and 4.2 of Schedule I of the Plan are amended by adding to such sections immediately following the phrase "did not exist" in each place such phrase appears therein the following: "and the Brush Wellman Inc. Key Employee Share Option Plan did not exist".

V.

The changes to the Plan made by Section I of this Amendment No. 3 shall be effective beginning May 5, 1998. The changes to the Plan made by Section II of this Amendment No. 3 shall be effective for Limitation Measuring Periods beginning after December 31, 1998. The changes to the Plan made by Section III of this Amendment No. 3 shall be effective beginning May 5, 1998. The changes to the Plan made by Section IV of this Amendment No. 3 shall be effective beginning May 5, 1998.

Executed at Cleveland, Ohio this ____ day of _____, 1998.

BRUSH WELLMAN INC.

By: _____

Title:

Exhibit I

**ELECTION AND CONSENT FORM REGARDING BRUSH WELLMAN INC.
KEY EMPLOYEE SHARE OPTION PLAN, SUPPLEMENTAL RETIREMENT BENEFIT PLAN, AND TRUST AGREEMENT FOR
SUPPLEMENTAL RETIREMENT BENEFIT PLAN ELECTION AND CONSENTS**

I hereby irrevocably elect, in accordance with Section 6.6 of the Brush Wellman Inc. Supplemental Retirement Benefit Plan (December 1, 1992 Restatement), as amended (the "Supplemental Plan") to forego all rights that I have or otherwise would have under Article VI of the Supplemental Plan with respect to my "Supplemental Savings Plan Account" (as defined in the Supplemental Plan) in consideration of the award of Option(s) under the Brush Wellman Inc. Key Employee Share Option Plan (the "KESOP") as described in Section III of this form below.

I hereby irrevocably consent to Amendment No. 3 to the Supplemental Plan, which amendment provides for the extinguishment of my Supplemental Savings Plan Account in connection with this election.

I hereby irrevocably consent to Amendment No. 1 to the Trust Agreement for Brush Wellman Inc. Supplemental Retirement Benefit Plan, which amendment provides for return to Brush Wellman Inc. of any assets of my separate account(s) under said Trust Agreement, attributable to contributions made prior to July 3, 1998. KESOP INVESTMENT SELECTION (in whole percentages)

I hereby irrevocably elect the following Designated Property for the KESOP Options I am to receive under this election:

[Fund 1]	_____	%
[Fund 2]	_____	%
[Fund 3]	_____	%

III. ACKNOWLEDGMENTS BY PARTICIPANT

I understand that the amount of KESOP Options I will receive under this election in regard to my Supplemental Savings Plan Account as of _____, 1998 will be determined as follows: My Supplemental Savings Plan Account balance as of _____, 1998 (including credits thereto in respect of compensation reductions for the pay period ending on _____, 1998) has been projected to be \$_____. Such projected amount, and not the actual amount of the account balance, will be used to determine the KESOP Option(s) that I will receive. The Grant Date for the Option(s) will be _____, 1998. The Exercise Price for the Option(s) will be 25% of the Fair Market Value on the Grant Date of the Designated Property purchasable under the Option(s). The formula that will be used to determine the number of shares of Designated Property purchasable under the Option(s) is: $\$ \text{_____} / .75 = \text{the Fair Market Value on the Grant Date of the total number of shares of Designated Property purchasable under the Option(s)}$. The Options will be written in such increments as the Committee shall determine. I understand that I will receive an Option Agreement covering each such Option substantially in the form attached hereto as soon as practicable after the Grant Date.

I understand that the amount of KESOP Options I will receive under this election in regard to compensation reductions for the period _____, 1998 through December 25, 1998 that I previously elected under the Supplemental Plan will be determined as follows: The total of such compensation

reductions that occur plus an amount equal to the "matching credits" that would have been credited to my Supplemental Savings Plan Account under the Supplemental Plan in respect of those compensation reductions in the absence of this election ("Matching Credits") will be used to determine the KESOP Option(s) I will receive. There will be two Grant Dates for the Option(s): _____, 1998, which will be for compensation reductions and Matching Credits for the period _____, 1998 through _____, 1998; and _____, 1998, which will be for compensation reductions and Matching Credits for the period _____, 1998 through December 25, 1998. The Exercise Price for the Option(s) will be 25% of the Fair Market Value on the Grant Date of the Designated Property purchasable under the Option(s). The formula that will be used to determine the number of shares purchasable under the Option(s) is: the aggregate dollar amount of compensation reductions plus Matching Credits for the applicable period/ (.75) = the Fair Market Value on the Grant Date of the total number of shares of Designated Property purchasable under the Option(s). The Options will be written in such increments as the Committee shall determine. I understand that I will receive an Option Agreement covering each such Option substantially in the form attached hereto as soon as practicable after the Grant Date(s).

I acknowledge that for this election to be effective, it must be properly completed and delivered to Brush Wellman Inc. at 17876 St. Clair Avenue, Cleveland, Ohio 44110-2697 to the attention of _____ prior to 5:00 p.m. Eastern standard time on _____, 1998.

I acknowledge that this election is irrevocable and that after delivery of this election to Brush Wellman Inc. I will not have any rights or benefits under the Supplemental Plan with respect to my Supplemental Savings Plan Account, except that if my employment with Brush Wellman Inc., and/or its affiliates, if applicable, terminates prior to _____, 1998, this election will be void.

I acknowledge that I have received from Brush Wellman Inc. the following: (1) a copy of Amendment No. 3 to the Supplemental Plan; (2) a copy of Amendment No. 1 to the Trust Agreement for Brush Wellman Inc. Supplemental Retirement Benefit Plan; (3) a copy of the Brush Wellman Inc. Key Employee Share Option Plan; (4) a copy of the Trust Agreement for Brush Wellman Inc. Key Employee Share Option Plan; and (5) a copy of the Prospectus dated _____, 1998 for the Brush Wellman Inc. Key Employee Share Option Plan.

I acknowledge that capitalized terms used in this election form that are not defined in this election form have the meanings given them in the Brush Wellman Inc. Key Employee Share Option Plan.

I acknowledge that in making this election I am not relying upon any advice provided by Brush Wellman Inc., the Committee under the Supplemental Plan, the Committee under the KESOP, or their affiliates, and that I am not relying upon any representation or information provided by Brush Wellman Inc., the Committee under the Supplemental Plan, the Committee under the KESOP, or their affiliates, except the documentation the receipt of which I have acknowledged above and the information contained in the first two paragraphs of this Section III of this election form.

[Name of Participant]

Date: , 1998

Receipt acknowledged by
Brush Wellman Inc.:

By

Title:

Date: , 1998

BRUSH WELLMAN INC.
KEY EMPLOYEE SHARE OPTION PLAN

Option Agreement

1. Pursuant to the Brush Wellman Inc. Key Employee Share Option Plan, as amended from time to time (the "Plan"), the terms of which are incorporated by reference into this Agreement, an Option is hereby granted to the Participant to purchase from Brush Wellman Inc. (the "Corporation") the Designated Property identified below at the Exercise Price set forth below:

Name of Participant:	[PARTICIPANT NAME]
KESOP Option Number:	[ADMINISTRATIVE IDENTIFYING NO.]
Designated Property:	[NAME OF MUTUAL FUND]
Number of Shares of Designated Property:	[NUMBER OF SHARES]

Exercise Price: \$_____ [25% of FMV AT GRANT DATE]

Grant Date: [GRANT DATE]

2. The rights of the Participant or any other person entitled to exercise the Option are governed by the terms and provisions of the Plan. All initial capitalized terms used herein and not otherwise defined herein have the meaning set forth in the Plan.

3. The Option may be exercised only by the Participant, the Participant's Beneficiary, or the Participant's permitted assignee pursuant to the Plan. The Option cannot otherwise be transferred, assigned, pledged or hypothecated for any purpose whatsoever and is not subject, in whole or in part, to execution, attachment, or similar process, and any such attempted action is void.

4. Written notice of an election to exercise the Option, enclosing this Agreement, shall be (a) delivered to the Committee at the following address, or
(b) mailed (by certified mail, postage prepaid) to the Committee at the following address:

[CONTACT PERSON]
[ADDRESS]

5. Payment of the Exercise Price shall be made by certified check (or other form of payment acceptable to the Corporation) concurrent with notification to the Committee of exercise of the Option, and the Participant must satisfy all federal, state, local, foreign, and other withholding tax requirements in any manner permitted under the Plan.

6. Except as otherwise provided in the Plan, the Option may be exercised at any time during the period beginning on the 184th day after the Grant Date and ending on the earliest of: (a) the third anniversary of the date of the Participant's Termination of Employment, (b) the first anniversary of the date of the Participant's death, or (c) the fifteenth anniversary of the Grant Date. To the extent, however, that exercise of the Option would or may result in compensation that would not be deductible to the Corporation because of the limitations of Internal Revenue Code Section 162(m) and as hereafter amended or otherwise modified, as determined by the Committee, exercise of the Option shall be limited in such manner as the Committee shall determine or shall be conditioned upon such agreement by the Participant as Committee shall determine.

7. Neither the Participant, a Beneficiary, nor any permitted assignee shall be, or shall have any of the rights and privileges of, a stockholder with respect to any Designated Property purchasable or issuable upon the exercise of this Option, unless and until this Option is exercised and the purchase price for the Designated Property has been paid in full.

8. The Option is conditioned upon the acceptance of this Agreement by the Participant as evidenced by the return of an executed copy to the Committee no later than ten days after the Grant Date.

9. Except to the extent governed by federal law, the Option and this Agreement shall be construed and interpreted according to and governed in all respects by the laws of the State of Ohio without regard to the choice of law principles of such state.

BRUSH WELLMAN INC.

By: Date:
[NAME, TITLE]

I, the undersigned Participant, hereby acknowledges that I have received from Brush Wellman Inc. the following: (1) a copy of the Brush Wellman Inc. Key Employee Share Option Plan; (2) a copy of the Trust Agreement for Brush Wellman Inc. Key Employee Share Option Plan; and (3) a copy of the Prospectus dated _____, 1998 for the Brush Wellman Inc. Key Employee Share Option Plan.

I, the undersigned Participant, hereby acknowledge that in accepting this Agreement I am not relying upon any advice or representation or information provided by Brush Wellman Inc., the Committee, or their affiliates, except as described in the KESOP Election Form to which this Agreement pertains.

Date:
[PARTICIPANT NAME], Participant

EXHIBIT (10t)

**AMENDMENT NO. 4
TO
BRUSH WELLMAN INC.
SUPPLEMENTAL RETIREMENT BENEFIT PLAN
(December 1, 1992 Restatement)**

Brush Wellman Inc., an Ohio corporation, hereby adopts this Amendment No. 4 to the Brush Wellman Inc. Supplemental Retirement Benefit Plan (December 1, 1992 Restatement) (the "Plan").

I.

Article VI of the Plan is amended by adding at the end thereof the following:

Section 6.7 -- 1999 Special Election

Notwithstanding any other provision of the Plan to the contrary, except Section 9.5 (as contemplated in this Section 6.7), each of David C. Deubner and John J. Pallam, may elect to forego all rights and benefits under the Plan with respect to his Supplemental Savings Plan Account in consideration of an award of "Options", as defined in the Brush Wellman Inc. Key Employee Share Option Plan (the "KESOP"), in accordance with the following and such rules and procedures as may be established by the Committee consistent with the following:

- (i) Such election may be made only by delivery during a period occurring in 1998, which period shall begin and shall end prior to the effective date of the election, by the Participant to the Company of a written election on a form prescribed therefor by the Committee, which form shall be substantially in the form of Exhibit II attached hereto and made a part hereof;
- (ii) In the case of a Participant who makes the election provided for under this Section 6.7, neither the Participant, the Participant's Beneficiary, nor any other person claiming through or under the Participant shall thereafter have any rights under or with respect to Article VI of the Plan and all provisions of the Plan shall be construed, interpreted, and applied accordingly;
- (iii) In the case of Participant who makes the election provided for under this Section 6.7 and who would have credits to his Supplemental Savings Plan Account occur under Section 6.2 after

the effective date of such election without regard to this Section 6.7, such credits shall not occur but such Participant's Excess Credited Compensation shall be reduced without regard to the election under this Section 6.7;

(iv) The provisions of this Section 6.7 shall not result in any right of a Participant to receive Excess Credited Compensation that such Participant has elected to reduce;

(v) The terms and conditions of Options awarded under the KESOP in respect of any election under this Section 6.7 shall be determined under the KESOP;

(vi) Such election shall include a consent to Amendment No. 4 to the Plan in accordance with Section 9.5 of the Plan and a consent under the Trust Agreement for Brush Wellman Inc. Supplemental Retirement Benefit Plan dated January 8, 1993 (the "Trust Agreement"), to Amendment No. 2 to the Trust Agreement, which Amendment No. 2 to the Trust Agreement provides for return to the Company of any assets of the Participant's separate account(s) under the Trust Agreement;

(vii) Such election shall be irrevocable after delivery thereof to the Company, and such election shall (except as otherwise provided in clause (viii) below) become effective upon delivery thereof to the Company; and

(viii) Notwithstanding the foregoing provisions of this Section 6.7, if the employment with the Controlled Group of any Participant described in this Section 6.7 shall terminate prior to the effective date of his election made pursuant to this Section 6.7 the provision of this Section 6.7 shall not apply with respect to such Participant and any election of such Participant made pursuant to this Section 6.7 shall be void ab initio.

II.

The changes to the Plan made by Section I of this Amendment No. 4 shall be effective beginning December 1, 1998.

Executed at Cleveland, Ohio this ____ day of _____, 1998.

BRUSH WELLMAN INC.

By:

Title:_____

EXHIBIT 10(u)

**AMENDMENT NO. 5
TO
BRUSH WELLMAN INC.
SUPPLEMENTAL RETIREMENT BENEFIT PLAN
(December 1, 1992 Restatement)**

Brush Wellman Inc., an Ohio corporation, hereby adopts this Amendment No. 5 to the Brush Wellman Inc. Supplemental Retirement Benefit Plan (December 1, 1992 Restatement) (the "Plan").

I.

Section 3.1 of the Plan is amended to provide as follows:

Section 3.1 - Retirement Benefit

If a Participant whose employment with the Company and all Related Companies terminates for any reason other than his death after he has 5 or more Years of Vesting Service and either the first day of the calendar month following his attainment of age 55 shall have occurred on or before the date his employment terminated or he survives until the first day of the calendar month following his attainment of age 55, such Participant shall be eligible for a retirement benefit under the Plan in the amount, if any, provided in Section 4.1.

II.

Section 3.2 of the Plan is amended to provide as follows:

Section 3.2 - Spouse Death Benefit

If either (i) a Participant who has 5 or more Years of Vesting Service dies while employed by the Company or Related Company, or (ii) the employment of a Participant who has 5 or more Years of Vesting Service with the Company and all Related Companies has terminated for any reason other than his death and the Participant dies prior to the first day of the calendar month following the calendar month in which either he attains or would have attained age 55, and, in either case, the Participant's death occurs under circumstances that entitle the Participant's Spouse to a pre-retirement surviving spouse pension under the Brush Pension Plan, the TMI Pension Plan, and/or the WAM Pension Plan, such Participant's Spouse shall be eligible for a death benefit under the Plan in the amount, if any, provided in Section 4.2.

III.

Section 5.2 is amended to provide as follows:

Section 5.2 - Time of Payment

Payment of a Retired Participant's retirement benefit under the Plan shall commence as of the first day of the calendar month next following the later of the Participant's Retirement or attainment of age 55. (Payment thereof shall, however, be subject to Section 3.4). Any Spouse death benefit under the Plan shall commence as of the first day of the calendar month next following the later of the calendar month in which the Participant's death occurs or the calendar month in which the Participant would have attained age 55.

IV.

The changes to the Plan made by this Amendment No. 5 shall be effective with respect to Participants whose employment covered under the Plan terminates after December 31, 1998.

Executed at Cleveland, Ohio, this ____ day of _____, 1998.

BRUSH WELLMAN INC.

By:_____

Title:_____

FIRST AMENDMENT TO MASTER LEASE AGREEMENT

THIS FIRST AMENDMENT TO MASTER LEASE AGREEMENT, dated as of September 2, 1997 ("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 (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", "hereinafter", "hereto", "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. Section XXV of the Lease Agreement shall be amended as follows:

(1) The definition of "Port Authority Bonds" is amended by deleting the same and inserting the following in lieu thereof:

"PORT AUTHORITY BONDS means the Toledo-Lucas County Port Authority Taxable Project Development Revenue Bonds, Series 1996 (Brush Wellman Inc. Project) in the principal amount of \$13,100,000, and the Toledo-Lucas County Port Authority Taxable Project Development Revenue Bonds, Series 1997 (Brush Wellman Inc. Project) in the principal amount of \$2,175,000, both of which were issued,

sold and delivered by the Toledo-Lucas County Port Authority to The Prudential Insurance Company of America;"

(2) The definition of "Port Authority Lease" is amended by deleting the same and inserting the following in lieu thereof:

"PORT AUTHORITY LEASE means the Lease, dated as of October 1, 1996, between the Toledo-Lucas County Port Authority, as lessor, and Lessee, as lessee, as amended by the First Supplemental Lease, dated as of April 1, 1997, between National City Bank, as trustee, as lessor (as assignee of all of the lessor's rights from the Toledo-Lucas County Port Authority), relating to certain real and personal property located at 14710 West Portage River S. Road, Harris Township, Ohio 43416;"

3. Representations and Warranties.

(A) Lessee hereby represents and warrants to Lessor that all representations and warranties set forth in the Lease Agreement, 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 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 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.

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/ Robert E. Little

Name: Robert E. Little

Title: Vice President

LESSEE:

BRUSH WELLMAN INC.

By: /s/ M. C. Hasychak

Name: M. C. Hasychak

Title: Treasurer and Secretary

THE FOREGOING FIRST AMENDMENT TO MASTER LEASE 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:

127 Public Square
Cleveland, Ohio 44114

KEYBANK NATIONAL ASSOCIATION

By: /s/ Matthew P. Tuohey

Title: AVP

Address:

611 Woodward
Detroit, Michigan 48226

NBD BANK

By: -----

Title: -----

Address:

600 Superior Avenue
Cleveland, Ohio 44114

BANK ONE, NA

By: /s/ Babette Casey Coerd

Title: Vice President and Group Manager

Address:

P.O. Box 755 (111/2W)
Chicago, Illinois 60690-0755

HARRIS TRUST AND SAVINGS BANK

By: /s/ W.A. McDonnell

Title: Vice President

SECOND AMENDMENT TO MASTER LEASE AGREEMENT AND AMENDMENT TO

DISBURSEMENT SCHEDULES

THIS SECOND AMENDMENT TO MASTER LEASE AGREEMENT AND AMENDMENT TO DISBURSEMENT SCHEDULES, dated as of January 26, 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 (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", "hereinafter", "hereto", "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 XIX(j) of the Lease Agreement shall be amended by deleting the same and inserting the following in lieu thereof:

"(j) Any Rent, Interim Rent or other amount not paid to Lessor when due hereunder (after any applicable grace period therefor) shall bear interest, both before and after any judgment or termination hereof, at the lesser of the Daily Lease Rate Factor then in effect plus two percent (2%) per annum or the maximum rate allowed by law. In addition, after the occurrence and during the continuance of a Default, the Daily Lease Rate Factor shall be increased by an amount equal to two percent (2%) per annum."

(B) 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 the date of this Agreement to March 31, 1999, inclusive, 4.75, (ii) from April 1, 1999, to June 30, 1999, inclusive, 4.50, (iii) from July 1, 1999, to September 30, 1999, inclusive, 4.00, (iv) from October 1, 1999, to December 31, 1999, inclusive, 3.75, (v) from January 1, 2000, to March 31, 2000, inclusive, 3.25, and (vi) on and after April 1, 2000, 3.00."

(C) Section XXV of the Lease Agreement shall be amended by deleting the definition of "MAXIMUM ACQUISITION COST" set forth therein and inserting the following in lieu thereof:

"MAXIMUM ACQUISITION COST means with respect to the aggregate Acquisition Cost of the Equipment under all of the Schedules, \$55,500,000;"

(D) Exhibit No. 1, Exhibit No. 2, Exhibit No. 3 and Exhibit No. 4 to the Lease Agreement are deleted and Exhibit No. 1, Exhibit No. 2, Exhibit No. 3 and Exhibit No. 4 attached to this Amendment are inserted in lieu thereof.

(E) Each Disbursement Schedule executed and delivered by Lessee on or prior to the date hereof shall be amended by deleting Paragraphs B.2., B.3, B.4 and B.8 and inserting the following in lieu thereof:

"2. Daily Lease Rate Factor: From the date of this Schedule to January 25, 1999, LIBOR Rate plus sixty (60) basis points per annum, and on and after January 26, 1999, 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.

8. Last Delivery Date: February 15, 1999."

(F) Each Disbursement Schedule executed and delivered by Lessee on or prior to the date hereof shall be amended by inserting in Paragraph C the following definition in alphabetical order:

"'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:
Greater than or equal to 4.50 to 1.00	2.00%
Less than 4.50 to 1.00, but greater 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	1.375%
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	0.80%
Less than 2.50 to 1.00, but greater than or equal to 2.00 to 1.00	0.70%
Less than 2.00 to 1.00	0.65%

(A) Initially, from January 26, 1999, until changed hereunder in accordance with the following provisions, the Applicable Margin will be 2.00% per annum. 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 its 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."

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 Disbursement 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 Disbursement 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 \$45,000 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: Fifth Third Bank, Northeastern Ohio.

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/ Jeffrey C. Douglas

Name: Jeffrey C. Douglas

Title: Vice President and Senior Lending Officer

LESSEE:

BRUSH WELLMAN INC.

By: /s/ Michael C. Hasychak

Name: Michael C. Hasychak

Title: Treasurer and Secretary

THE FOREGOING WAIVER 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:

1404 East Ninth Street
Cleveland, Ohio 44114

FIFTH THIRD BANK, NORTHEASTERN
OHIO

By: -----

Title: -----

Address:

611 Woodward
Detroit, Michigan 48226

BANK ONE, NA

By:

Title:

Address:

P.O. Box 755 (111/10W)
Chicago, Illinois 60690-0755

HARRIS TRUST AND SAVINGS BANK

By: /s/ Peter Krawchuk

Title: Vice President

Address: NBD BANK

611 Woodward

Detroit, Michigan 48226

By: /s/ Patrick E. Dunphy

Title: Vice President

EXHIBIT NO. 1

DISBURSEMENT SCHEDULE

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

Lessor & Mailing Address:

NATIONAL CITY BANK,
FOR ITSELF AND AS AGENT FOR
CERTAIN PARTICIPANTS
1900 East 9th Street
Cleveland, Ohio 44114

Lessee & Mailing Address:

BRUSH WELLMAN INC.
17876 St. Clair Avenue
Cleveland, Ohio 44110

This Disbursement 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 Disbursement Schedule, incorporating by reference the Agreement, constitutes a separate instrument of lease.

A. Disbursement Equipment.

Pursuant to the terms of the Lease, Lessor agrees to fund disbursements in respect of the Disbursement Equipment listed on Annex A attached hereto and made a part hereof.

B. Financial Terms.

1. Capitalized Lessor's Cost: \$_____ (on the date of this Schedule).
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 at 14710 W. Portage River South Road, Harris Township, Ottawa County, Ohio 43416.
6. Lessee Federal Tax ID No.: 34-0119320
7. Maximum Lease Term: The Term shall not exceed twelve (12) years.
8. Last Delivery Date: February 15, 1999.

C. Interim Term and Interim Rent.

1. Interim Rent. For the period from and including the Disbursement Commencement Date to the Basic Term Commencement Date ("Interim Lease Term"), rent ("Interim Rent") shall accrue on the Capitalized Lessor's Cost in an amount equal to the product of the Daily Lease Rate Factor times the Capitalized Lessor's Cost of the Disbursement Equipment times the number of days in the Interim Interest Period. Interest shall be calculated on the basis of a 360 day year for the actual number of days elapsed. Interim Rent shall accrue during each Interim Interest Period and, at the end of each Interim Interest Period, shall be added to and become part of the Lessor's Capitalized Cost outstanding under this Disbursement Schedule, unless otherwise paid as provided in the Agreement.

2. Disbursement Equipment. Lessee represents, warrants and covenants as follows with respect to the Disbursement Equipment listed on Annex A attached hereto:

(i) To the best of its knowledge, the Disbursement Equipment will be completed, shipped and delivered to Lessee, and installed at the Equipment Location on or prior to the Last Delivery Date;

(ii) Each item of Disbursement Equipment constitutes a portion or unit of the Equipment described on Annex A attached hereto; and

(iii) The Purchase Order or Purchase Orders relating to that Disbursement Equipment require the disbursement of funds in an amount equal to the Capitalized Lessor's Cost, and Lessee has received invoices for those funds.

As used in this Schedule, 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:
Greater than or equal to 4.50 to 1.00	2.00%
Less than 4.50 to 1.00, but greater 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	1.375%
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	0.80%
Less than 2.50 to 1.00, but greater than or equal to 2.00 to 1.00	0.70%
Less than 2.00 to 1.00	0.65%

(A) Initially, from January 26, 1999, until changed hereunder in accordance with the following provisions, the Applicable Margin will be 2.00% per annum. 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 its 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.

"INTERIM INTEREST PERIOD" or "INTEREST PERIOD" shall mean the period beginning on the date of this Schedule and ending on the same day of each month thereafter during the Interim Lease Term.

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

"LIBOR RATE" shall mean, with respect to any Interim Interest Period occurring during the term of the Lease, an interest rate per annum equal at all times during such Interim 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 Interim Interest Period to major banks in the London interbank market for a period of one (1) month 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 Interim 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 the 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 Disbursement Equipment described on all Disbursement Schedules executed pursuant to the Agreement and shall pay to Lessor, in cash, the purchase price for the Disbursement 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 Disbursement Equipment shall be an amount equal to all amounts disbursed by Lessor in respect of that Disbursement Equipment, 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 Disbursement Equipment. Lessor shall not be required to make and may specifically disclaim any representation or warranty as to the condition of the Disbursement Equipment and other matters (except that Lessor shall warrant that it conveyed whatever interest it received in such Disbursement 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 Disbursement Equipment.

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 Disbursement 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. In addition, whenever Lessee shall revoke any Disbursement Funding Notice or shall for any other reason fail to take a disbursement pursuant thereto or shall fail otherwise to comply therewith, then, in each case on the demand of Lessor or any Participant, Lessee shall pay that Person such amount as will compensate it for any loss, cost or loss of profit incurred by it by reason of its liquidation or reemployment of deposits or other funds.

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 full replacement cost of each unit of Disbursement Equipment or the amounts disbursed by Lessor in respect of each unit of Disbursement Equipment, with a maximum deductible amount of \$1,000,000 per occurrence.

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.

LESSOR:	LESSEE:
NATIONAL CITY BANK, FOR ITSELF AND AS AGENT FOR CERTAIN PARTICIPANTS	BRUSH WELLMAN INC.
By: _____	By: _____
Name: _____	Name: _____
Title: _____	Title: _____

**ANNEX A
TO
DISBURSEMENT SCHEDULE NO. _____
DATED THIS _____ DAY OF _____, 199__
TO MASTER LEASE AGREEMENT DATED AS OF December 30, 1996**

DESCRIPTION OF DISBURSEMENT EQUIPMENT

Vendor -----	Type and Serial Numbers -----	Model of Equipment -----	Number of Units -----	Cost per Unit -----
-----------------	--	--------------------------------	-----------------------------	---------------------------

Initials: _____
Lessor Lessee

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:

NATIONAL CITY BANK,
FOR ITSELF AND AS AGENT FOR
CERTAIN PARTICIPANTS
1900 East 9th Street
Cleveland, Ohio 44114

Lessee & Mailing Address:

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.

10. Stipulated Loss Values: See Annex D.

11. Termination Values: See Annex D.

12. Assumed Interest Rate: _____% (which will be determined three (3) Business Days before the date of execution of this Schedule).

13. 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:
Greater than or equal to 4.50 to 1.00	2.00%
Less than 4.50 to 1.00, but greater 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	1.375%
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	0.80%
Less than 2.50 to 1.00, but greater than or equal to 2.00 to 1.00	0.70%
Less than 2.00 to 1.00	0.65%

(A) Initially, from January 26, 1999, until changed hereunder in accordance with the following provisions, the Applicable Margin will be 2.00% per annum. 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 its 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

End of -----	Fixed Purchase Price (Percent of Capitalized Lessor's Cost) -----	Residual Risk Amount (Percent of Capitalized 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.

LESSOR:	LESSEE:
NATIONAL CITY BANK, FOR ITSELF AND AS AGENT FOR CERTAIN PARTICIPANTS	BRUSH WELLMAN INC.
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 B
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 _____, 199__
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 Date)	STIPULATED LOSS AND TERMINATION VALUE*
1	100.0000%
2	100.0000%
3	100.0000%
4	100.0000%
5	100.0000%
6	100.0000%
7	100.0000%
8	100.0000%
9	100.0000%
10	100.0000%
11	100.0000%
12	98.0934%
13	96.1529%
14	94.1780%
15	92.1681%
16	90.1225%
17	88.0407%
18	85.9219%
19	83.7655%
20	81.5709%
21	79.3374%
22	77.0642%
23	74.7508%
24	72.3963%
25	70.0000%
26	67.4578%
27	64.8705%
28	62.2373%
29	59.5574%
30	56.8300%
31	54.0542%
32	51.2292%
33	48.3540%
34	45.4279%
35	42.4499%
36	39.4190%
37	36.3344%
38	33.1950%
39	30.0000%

Initials: _____
Lessor Lessee

*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 (after Basic Term Commencement Date)	PERCENT OF PRINCIPAL PAYABLE*	PERCENT OF REMAINING PRINCIPAL 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: _____
Lessor
Lessee

*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 Certificate], 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.

plus	\$170,696,000 \$_____	40% of \$_____	annual earnings accumulated from December 31, 1996 to the end of the preceding fiscal year (see Section XXIII(a))
sum	\$_____ \$_____	required amount actual Tangible Net Worth as of the Closing Date	

(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 the date of this Agreement to March 31, 1999,

inclusive, 4.75, (ii) from April 1, 1999, to June 30, 1999, inclusive, 4.50, (iii) from July 1, 1999, to September 30, 1999, inclusive, 4.00, (iv) from October 1, 1999, to December 31, 1999, inclusive, 3.75, (v) from January 1, 2000, to March 31, 2000, inclusive, 3.25, and (vi) on and after April 1, 2000, 3.00.

	\$ _____	Funded Indebtedness
divided by	\$ _____	EBITDA
	\$ _____	EBIT
	\$ _____	Depreciation
	\$ _____	Amortization
quotient	_____	

(c) The ratio of (i) the aggregate of the Companies' EBITDA for the four consecutive fiscal quarters most recently ended, to (ii) the aggregate Interest Expense of the Companies for that period, to be less 5.00 to 1:00, all as determined on a consolidated basis.

ratio of	\$ _____	EBITDA
	\$ _____	EBIT
	\$ _____	Depreciation
	\$ _____	Amortization
to	\$ _____	Interest Expense
ratio	_____ to _____	

(d) The FUNDED INDEBTEDNESS of the Companies does not exceed an amount equal to the REQUIRED MULTIPLIER times the sum of the Companies' FUNDED INDEBTEDNESS plus the Companies' TANGIBLE NET WORTH -- the REQUIRED MULTIPLIER being (i) from the date of the Lease Agreement to December 31, 2000, inclusive, 0.50, and (ii) on and after January 1, 2001, 0.45.

	\$ _____	Funded Indebtedness
divided by	\$ _____	Funded Indebtedness plus Tangible Net Worth
quotient	_____	

BRUSH WELLMAN INC.

By:

Title:

EXHIBIT NO. 4

LIST OF EQUIPMENT AND ACQUISITION COST

			TOTAL
			ACQUISITION
			COST
	EQUIPMENT	PURCHASE ORDER NO. AND VENDOR	
1.	Walking Beam Furnace	EX90006/Seco-Warwick	\$2,200,000.00
2.	Hot Mill	EX90003/Griset Engineering	\$12,400,000.00
3.	Bell Aging Furnace	EX90012/RAD-CON Inc.	\$1,550,000.00
4.	Slab Mill	EX90007/Integrated Industrial Systems	\$7,350,000.00
5.	Finish Pickle Line	EX90010/SMS Process Lines	\$7,100,000.00
6.	Four-High Rolling Mill	EX90002/Griset Engineering	\$9,200,000.00
7.	Anneal/Pickle Line	1. EX90009/SMS Process Lines Anneal/Pickle Line	\$13,400,000.00
		2. EX90008/Drever Company Cont. Anneal Line	
8.	Degreasing Line	EX90011/SMS Process Lines	\$2,300,000.00
	TOTAL		\$55,500,000.00

Brush Wellman Inc. 1998 Annual Report

A SOLID FOUNDATION. A STRONG FUTURE.

**BRUSHWELLMAN(R)
ENGINEERED MATERIALS**

**BUILDING a SOLID FOUNDATION
for a STRONG FUTURE.**

[PHOTO]

Alloy Products

[PHOTO]

Beryllium Products

[PHOTO]

Advanced Packaging and Materials

Brush Wellman 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, Brush Wellman produces Engineered Material Systems through Technical Materials, Inc., and precious metal and specialty alloy products through Williams Advanced Materials Inc., both wholly-owned subsidiaries.

Brush Wellman materials continue to find new applications in a widening array of markets where superior performance and reliability are essential. Brush Wellman's two primary business segments, Metal Systems Group and Microelectronics Group, provide the products to meet these growing demands.

METAL SYSTEMS GROUP

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 product form, are ideal choices for demanding applications in computers, telecommunications, automotive electronics, energy systems, and plastic molds.

Beryllium is a lightweight metal possessing unique mechanical and thermal properties. Its specific stiffness is much greater than other engineered structural materials such as aluminum, titanium, and steel. Beryllium Products, including AlBeMet((R)), AlBeCast((R)), and E-materials are used in a variety of high-performance applications, primarily, but not exclusively, in the defense and aerospace markets.

Engineered Materials Systems, manufactured by Technical Materials, Inc., 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.

MICROELECTRONICS GROUP

Williams Advanced Materials Inc., (WAM) manufactures and markets materials of unique value for the hybrid microelectronics, semiconductor, optical media, electron tube, magnetic head including MR and GMR materials, crystal, aerospace, and performance film industries. WAM's products consist primarily of pure metal and specialty metal alloys fabricated to meet the exacting standards required in high reliability applications.

Ceramic Products offer unique solutions for thermal and electrical problems that exist in today's electronic marketplace. The combination of materials and technologies in ceramics, powder metallurgy, thick film metalization, and component assembly provides solutions to meet the cost and performance requirements in the most demanding electronic applications. These products are used in wireless communication, automotive, medical, and aerospace applications.

Brush Wellman Inc. is listed on the New York Stock Exchange under the symbol BW.

FINANCIAL HIGHLIGHTS

(Dollars in millions except per share amounts)

	1998	1997	1996
	----	----	----
Sales	\$ 409.9	\$ 433.8	\$ 376.3
Net Income (Loss) as reported	(7.1)	25.6	24.5
Excluding special charge	9.3	25.6	24.5
Net Income (Loss) per share (diluted) as reported	(0.44)	1.56	1.53
Excluding special charge	0.57	1.56	1.53
Dividends per share	0.48	0.46	0.42
Shareholders' equity per share	13.63	14.60	13.84

REVENUE

BY SEGMENT

72% Metal Systems Group
26% Microelectronics Group
2% Other

BY MARKET

24% Telecommunications
19% Other
16% Automotive
15% Computer
12% Industrial Components
6% Optical Media
5% Aerospace/Defense
3% Appliance

BY GEOGRAPHIC REGION

69% Domestic
31% International

[Photo]

Gordon D. Harnett
Chairman of the Board,
President, and
Chief Executive Officer

TO OUR SHAREHOLDERS

If nothing else, 1998 served to remind me that good plans don't always produce results exactly as expected, especially results which correspond to 12-month cycles associated with fiscal years and annual reports. Our plans are focused on long-term opportunities and strategies designed to provide the basis for long-term earnings improvement and increased shareholder returns, sometimes at the expense of current earnings.

The financial results achieved this past year were clearly disappointing and certainly did not meet my expectations. Throughout the year a number of factors contributed to the decline in operating profit. However, the poor results do not dampen my enthusiasm for our future prospects and the potential for significant earnings growth created by the over \$165 million in investments made over the last few years. These investments are creating a very solid foundation for future earnings growth and positive returns to Brush Wellman shareholders.

1998 FINANCIAL RESULTS

For the year 1998, Brush Wellman reported a net loss of \$7.1 million, or \$0.44 per share, diluted. This compares with net income of \$25.6 million or \$1.56 per share, diluted, for 1997. The 1998 results were reduced by a previously announced charge of \$22.6 million, pretax. This charge related to write-downs in the carrying value of various assets and the establishment of reserves principally relating to a voluntary environmental remediation of a former manufacturing site. Absent these items, the Company achieved net income of \$9.3 million, or earnings of \$0.57 per share, diluted. Sales during 1998 totaled \$410 million, a 5% decrease from 1997 sales of \$434 million. However, the Company's revenues were negatively affected by lower metal prices, precious metal mix, and the strength of the dollar relative to various foreign currencies. Net of these factors, the actual level of business was up slightly. During the year, earnings were adversely affected by foreign currency exchange rates, capacity constraints in Alloy Products, the slow down in Asia and U.S. electronics markets, the General Motors strike, business and product mix shifts, and start-up costs associated with our alloy expansion.

Additional details of financial performance during 1998 are contained in the Management's Discussion and Analysis beginning on page 28.

BUSINESS SEGMENT SUMMARY

Our various products are segmented into two major groups: the Metal Systems Group and the Microelectronics Group.

METAL SYSTEMS GROUP

The Metal Systems Group represents approximately 72% of sales and includes Alloy Products, Beryllium Products, and Engineered Material Systems produced by the Company's subsidiary, Technical Materials, Inc. (TMI).

Alloy Products sales in 1998 declined due to lower copper prices, a shift in product mix, and the strength of the dollar. Actual pounds shipped set a new record with notable growth in bulk products and in Europe. Sales of Alloy Products were also impacted in part by capacity constraints, which we expect to have resolved upon the completion of our \$117 million expansion and upgrading of our alloy casting and strip capabilities in 1999. This Alloy Expansion Project has taken longer than anticipated to bring on line and has resulted in added expense and capacity constraints at a time of increasing demand for our Alloy Products. Progress is being made and we expect the expansion to be fully operational in the second half of 1999. The expansion will ultimately provide us not only with increased capacity but also improved quality and reduced cost for virtually all of our Alloy Products.

The opportunities for growth in Alloy Products remain very attractive and, in the near term, upon completion of the Alloy Expansion Project, we expect to be able to aggressively pursue them. In addition, new alloys have successfully been developed that offer competitive advantages in targeted markets such as automotive, telecommunications, computer, and appliance. In support of the expansion of our Alloy manufacturing facilities and the introduction of

[Photo]

Coils entering the pickling and annealing line at the Alloy Expansion Project.

[Photo]

TMI specialty strip products, ideal for complex electronic/electrical components.

our new products, we have also reorganized our sales and marketing functions to provide separate dedicated resources to focus on key markets and product opportunities.

Sales of Beryllium Products had a second consecutive year of growth in 1998. This past year also saw significant growth in AlBeMet((R)) sales and profit contribution. AlBeMet((R)) has the potential to grow dramatically in the years ahead as it meets the need for lighter and stiffer materials in markets such as satellite structures.

TMI's sales declined slightly in 1998 due primarily to the impact of lower metal prices and the General Motors strike. During 1998, TMI continued to invest in its precious metal electroplating capabilities. The expansion of the electroplating product line enables TMI to offer the industry's widest range of advanced metallurgical joining, coating, and shape altering technologies for reel-to-reel strip metal products. The precious metal electroplating technology can be combined with TMI's clad metals, electron beam welding, multigauge profiling, and reflow solder coating technologies to provide single-source solutions for specialty strip metal applications. TMI has positioned itself to capitalize on the high-growth markets such as automotive electronics, telecommunications, and computer.

MICROELECTRONICS GROUP

The Microelectronics Group, comprising about 26% of sales, includes Williams Advanced Materials Inc. (WAM), Ceramics, and Circuits Processing Technology Inc. (CPT).

In spite of a general slowdown in the worldwide microelectronics industry, WAM had a very successful year, achieving record value-added (revenue less the cost of the metal) while continuing to diversify its business. In 1998, WAM established a new business unit, WAM Specialty Alloys, that will focus on high temperature braze materials and structural alloys used to build high-voltage vacuum tubes for microwave, telecommunications, medical, and various commercial applications.

During 1998, WAM continued to develop its Physical Vapor Deposition (PVD) business with significant market growth in both optical media and the performance films markets.

In July 1998, WAM acquired the assets of Pure Tech Inc., positioning itself as the key fullyintegrated supplier of PVD materials supporting both precious and non-precious materials and market applications.

While sales and earnings for Ceramic Products declined in 1998, the financial results mask important progress in developing CuPack((R)) as a potential new product line and the development of copper tungsten and related powder metallurgy products as viable thermal management solutions in electronic applications. CPT also made progress in qualifying its products in several new high reliability military and commercial applications.

ORGANIZATION

A FOUNDATION OF GOOD PEOPLE

In 1998, Brush Wellman made a number of moves to strengthen our management team.

In June, William R. Seelbach was named President of Alloy Products, a newly created position. As such, he is responsible for the growth and profitability of our worldwide Alloy business. Bill had been Chairman and CEO of Inverness Partners, an investment firm that acquired and grew several midwestern manufacturing companies. Prior to his service with Inverness Partners, Bill was a partner with McKinsey & Co., an international management consulting firm.

In October, John D. Grampa was named Vice President, Finance. His responsibilities include achieving the desired improvements from our new information systems, focusing our ongoing efforts to improve the financial reporting process, and assisting in the implementation of our corporate strategies.

[Photo] WAM materials for hybrid microelectronics, semiconductor, and data-storage applications.

[Photo] Cupack((R)) Power RF Packages provide solutions for wireless applications.

INTERNATIONAL SALES
(Dollars in millions)

`94	`95	`96	`97	`98
---	---	---	---	---
114.9	127.3	108.4	142.4	129.1

John had been Vice President, Finance for the worldwide Materials Business of Avery Dennison Corporation. Prior to Avery Dennison, John held a number of financial management positions at Diamond Shamrock, Inc.

In Alloy Products operations, Harold Wiegard was named the Plant Manager of the Company's Elmore, Ohio facility. Harold was formerly the Plant Manager of the Company's Reading, Pennsylvania facility. Greg Gregory was named Reading Plant Manager. Greg had been the Plant Manager of Ethyl Corporation's Houston, Texas Plant. In addition, Jim Feldhouse was named Lorain, Ohio Plant Manager. Jim previously was Director of North American Operations for Crompton Modutec Instruments, a division of British Tire and Rubber PLC.

Most recently, at the Board of Directors meeting in January 1999, Mr. David H. Hoag was appointed as a Director. Mr. Hoag is the recently retired Chairman of LTV Corporation and brings with him a wealth of experience in the metals industry. I am looking forward to his future contributions as a Director of your Company.

ENVIRONMENTAL HEALTH AND SAFETY

Brush Wellman continued to make progress in the area of beryllium health and safety. In their most common solid form, beryllium and beryllium alloys pose no special health risk. But, for fifty years, it has been known that the inhalation of fine airborne particles of beryllium may cause a lung disorder known as chronic beryllium disease (CBD). The risk of CBD is generally confined to work places in which operations are performed that generate beryllium-containing dust or fumes.

Brush Wellman has been, and remains, open and progressive in discussing the hazards of beryllium and informing employees and customers of its dangers. We also have aggressively led the way in reducing the health hazards associated with the production and use of beryllium. This past year was no exception and saw the Company make significant investments at our Elmore and Tucson plants to further reduce and isolate areas of potential beryllium exposure. We also continued to support and invest in testing and medical research into the prevention and treatment of CBD.

Brush Wellman has gone and will continue to go the extra mile in reducing the risks of working with beryllium to give our employees a safe and healthy place to work.

OUTLOOK

A SOLID FOUNDATION FOR A STRONG FUTURE

Over the past three years, since Brush Wellman made the decision to make significant investments in order to capitalize on identified opportunities and to ensure future earnings growth, there has been an unfailing commitment throughout the organization to reach our goals.

That commitment, while tested this past year, has never wavered. We remain committed to our strategic plan of continued improvement in the base business, becoming the global leader in non-ferrous specialty alloys, and building a microelectronics business. We are encouraged by the opportunities we see in our core markets and by the progress made, particularly considering the number and magnitude of projects and changes we have undertaken. Our newly developed alloys and products are targeted to take advantage of these market opportunities.

The investments Brush Wellman has made are now opening exciting and substantial opportunities for its shareholders and employees. The \$165 million in investments, while largely focused on the Alloy business, in reality, involves over twelve growth initiatives and will benefit each of our business units and should provide the basis for overall corporate earnings growth and increased shareholder returns.

Although our Alloy Expansion Project hit a few snags in 1998, our expectations about its benefits and long-term opportunities remain strong. As a result of our expanded manufacturing capabilities, newly developed products, and organizational changes, we believe that we have built a solid foundation for measurable improvement in our future long-term performance. During 1999, the stage should be set for expanded sales, improved productivity, and higher earnings.

[Photo] A copper beryllium coil is removed from the surface mill at the Alloy Expansion Project.

[Photo] Vertical casting of bronze alloys at the Brush Engineered Bronze facility.

DIVIDENDS PER COMMON SHARE				
(Dollars)				
`94	`95	`96	`97	`98
---	---	---	---	---
0.24	0.36	0.42	0.46	0.48

While this past year was one that did not produce satisfactory financial results, I am confident that we are on the path to achieving attractive returns on the investments we have made.

A strong foundation, critical for long-term success, is now in place at Brush Wellman - a dedicated workforce, committed management team, high-quality, high-demand product line, state-of-the-art facilities, and a growth-oriented customer and prospect base.

It is now up to all of us at Brush Wellman to set the wheels in motion and build upon that foundation to create a successful future for our Company and satisfactory returns for our shareholders. I speak for all employees of Brush Wellman when I say we are eagerly looking forward to the next few years and the results that we expect to produce.

Sincerely,

/s/ Gordon D. Harnett

*Gordon D. Harnett
Chairman of the Board,
President, and
Chief Executive Officer*

FINANCIAL INFORMATION

Selected Financial Data	10
Consolidated Financial Statements	12
Notes to Consolidated Financial Statements	16
Reports of Independent Auditors and Management	27
Management's Discussion and Analysis	28
Brush Wellman Inc. Directors and Officers	35
Corporate Data	36

SELECTED FINANCIAL DATA

Brush Wellman Inc. and Subsidiaries
(Dollars in thousands except per share amounts)

	1998	1997	1996	1995	1994
	----	----	----	----	----
FOR THE YEAR					
Net sales	\$ 409,892	\$ 433,801	\$ 376,279	\$ 369,618	\$ 345,878
Cost of sales	325,173	324,463	271,149	268,732	253,938
Gross profit	84,719	109,338	105,130	100,886	91,940
Operating profit (loss)	(10,313)	36,024	34,305	29,086	25,098
Interest expense	1,249	553	1,128	1,653	2,071
Income (loss) from continuing operations					
Before income taxes	(11,562)	35,471	33,177	27,433	23,027
Income taxes (benefit)	(4,430)	9,874	8,686	6,744	4,477
Net income (loss)	(7,132)	25,597	24,491	20,689	18,550
Earnings per share of common stock					
Basic net income (loss)	(0.44)	1.58	1.55	1.28	1.15
Diluted net income (loss)	(0.44)	1.56	1.53	1.27	1.15
Dividends per share of common stock	0.48	0.46	0.42	0.36	0.26
Depreciation and amortization	24,589	19,329	22,954	20,911	19,619
Capital expenditures	36,732	53,155	26,825	24,244	17,214
Mine development expenditures	433	9,526	3,663	787	543
YEAR-END POSITION					
Working capital	100,992	100,599	128,172	125,156	116,708
Ratio of current assets to current liabilities	2.1 to 1	2.3 to 1	2.9 to 1	2.9 to 1	2.8 to 1
Property and equipment:					
At cost	421,467	463,689	404,127	374,367	350,811
Cost less depreciation and impairment	164,469	173,622	130,220	121,194	116,763
Total assets	403,690	383,852	355,779	331,853	317,133
Other long-term liabilities	49,955	48,025	47,271	45,445	43,354
Long-term debt	32,105	17,905	18,860	16,996	18,527
Shareholders' equity	221,811	236,813	219,257	200,302	186,940
Book value per share	13.63	14.60	13.84	12.40	11.61
Average number of shares of stock outstanding					
Basic	16,267,804	16,214,718	15,846,358	16,159,508	16,102,350
Diluted	16,267,804	16,429,468	15,980,481	16,289,795	16,156,159
Shareholders of record	2,313	2,329	2,407	2,351	2,521
Number of employees	2,187	2,160	1,926	1,856	1,833

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

Impairment and restructuring charges reduced net income by \$30.8 million in 1991 and \$8.4 million in 1989.

The cumulative effect of a change in accounting for postretirement benefits reduced net income by \$16.5 million in 1991.

See notes to consolidated financial statements.

FOR THE YEAR	1993 ----	1992 ----	1991 ----	1990 ----	1989 ----	1988 ----
Net sales	\$ 295,478	\$ 265,034	\$ 267,473	\$ 297,390	\$ 317,828	\$ 345,838
Cost of sales	227,686	192,944	202,080	212,841	233,165	239,554
Gross profit	67,792	72,090	65,383	84,549	84,663	106,284
Operating profit (loss)	10,658	16,949	(57,354)	28,132	29,195	54,704
Interest expense	2,952	3,206	3,755	3,359	2,860	2,843
Income (loss) from continuing operations						
Before income taxes	7,706	13,743	(61,109)	24,773	26,335	51,861
Income taxes (benefit)	1,248	3,243	(17,091)	7,214	7,793	19,344
Net income (loss)	6,458	10,500	(44,018)	17,559	18,542	32,517
Earnings per share of common stock						
Basic net income (loss)	0.40	0.65	(2.74)	1.09	1.10	1.79
Diluted net income (loss)	0.40	0.65	(2.74)	1.09	1.10	1.79
Dividends per share of common stock	0.20	0.26	0.59	0.71	0.67	0.63
Depreciation and amortization	21,720	20,180	22,759	24,070	24,077	23,405
Capital expenditures	11,901	13,604	13,605	16,160	19,946	22,645
Mine development expenditures	814	848	6,389	5,699	259	503
YEAR-END POSITION						
Working capital	105,272	88,616	80,427	87,570	78,346	92,530
Ratio of current assets to current liabilities.....	3.1 to 1	2.5 to 1	2.2 to 1	2.4 to 1	2.1 to 1	2.4 to 1
Property and equipment:						
At cost	337,342	332,971	321,981	307,088	292,708	279,927
Cost less depreciation and impairment	118,926	127,991	132,579	143,635	141,639	143,180
Total assets	293,372	310,039	307,296	338,982	338,279	357,751
Other long-term liabilities	40,663	40,332	38,029	9,356	9,087	9,547
Long-term debt	24,000	33,808	34,946	26,673	21,076	29,908
Shareholders' equity	172,075	168,824	162,264	215,891	211,769	232,840
Book value per share	10.70	10.50	10.10	13.40	12.60	12.82
Average number of shares of stock outstanding						
Basic	16,087,250	16,080,554	16,069,902	16,108,479	16,805,701	18,159,338
Diluted	16,093,696	16,111,090	16,080,568	16,116,210	16,820,735	18,173,092
Shareholders of record	2,566	2,762	3,116	3,446	3,820	4,014
Number of employees	1,803	1,831	1,943	2,079	2,160	2,602

CONSOLIDATED STATEMENTS OF INCOME
Brush Wellman Inc. and Subsidiaries
Years ended December 31, 1998, 1997, and 1996
(Dollars in thousands except per share amounts)

	1998	1997	1996
	-----	-----	-----
Net sales	\$ 409,892	\$ 433,801	\$ 376,279
Cost of sales	325,173	324,463	271,149
	-----	-----	-----
Gross margin	84,719	109,338	105,130
Selling, administrative, and general expenses	64,553	65,282	61,555
Research and development expenses	8,665	7,707	8,309
Other -- net	21,814	325	961
	-----	-----	-----
Operating profit (loss)	(10,313)	36,024	34,305
Interest expense	1,249	553	1,128
	-----	-----	-----
INCOME (LOSS) BEFORE INCOME TAXES	(11,562)	35,471	33,177
	-----	-----	-----
Income taxes (benefit):			
Currently payable	1,147	8,506	9,825
Deferred	(5,577)	1,368	(1,139)
	-----	-----	-----
	(4,430)	9,874	8,686
	-----	-----	-----
NET INCOME (LOSS)	\$ (7,132)	\$ 25,597	\$ 24,491
	=====	=====	=====
Net income (loss) per share of common stock-- basic	\$ (0.44)	\$ 1.58	\$ 1.55
	=====	=====	=====
Average number of shares of common stock outstanding-- basic	16,267,804	16,214,718	15,846,358
Net income (loss) per share of common stock-- diluted	\$ (0.44)	\$ 1.56	\$ 1.53
	=====	=====	=====
Average number of shares of common stock outstanding-- diluted	16,267,804	16,429,468	15,980,481

See notes to consolidated financial statements.

CONSOLIDATED STATEMENTS OF CASH FLOWS
Brush Wellman Inc. and Subsidiaries
Years ended December 31, 1998, 1997, and 1996
(Dollars in thousands)

	1998	1997	1996
	-----	-----	-----
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net income (loss)	\$ (7,132)	\$ 25,597	\$ 24,491
Adjustments to reconcile net income (loss) to net cash			
Provided from operating activities:			
Depreciation, depletion, and amortization	21,535	18,695	18,537
Amortization of mine development	3,054	634	4,417
Impairment of fixed assets and related intangibles	14,273	--	--
Decrease (increase) in accounts receivable	2,670	(12,652)	(557)
Decrease (increase) in inventory	(10,266)	3,653	(2,946)
Decrease (increase) in prepaid and other current assets	(8,969)	(4,001)	(460)
Increase (decrease) in accounts payable and accrued expenses	1,091	10,126	1,158
Increase (decrease) in interest and taxes payable	(1,671)	(2,536)	(1,327)
Increase (decrease) in deferred income tax	3,490	1,466	(1,189)
Increase (decrease) in other long-term liabilities	1,739	962	1,954
Other-- net	(328)	(1,550)	966
	-----	-----	-----
NET CASH PROVIDED FROM OPERATING ACTIVITIES	19,486	40,394	45,044
CASH FLOWS FROM INVESTING ACTIVITIES:			
Payments for purchase of property, plant, and equipment	(36,732)	(53,155)	(26,825)
Payments for mine development	(433)	(9,526)	(3,663)
Payments for acquisition of business	(12,376)	--	--
Other investments-- net	6,331	(1,686)	(4,909)
	-----	-----	-----
NET CASH USED IN INVESTING ACTIVITIES	(43,210)	(64,367)	(35,397)
CASH FLOWS FROM FINANCING ACTIVITIES:			
Proceeds from issuance of short-term debt	15,595	6,997	552
Proceeds from issuance of long-term debt	15,000	--	8,305
Repayment of long-term debt	(800)	(960)	(813)
Repayment of short-term debt	(1,815)	(93)	(2,149)
Purchase of treasury stock	(5,349)	(4,927)	(6,656)
Issuance of common stock under stock option plans	3,561	5,872	1,460
Payments of dividends	(7,812)	(7,285)	(6,489)
	-----	-----	-----
NET CASH PROVIDED FROM (USED IN) FINANCING ACTIVITIES	18,380	(396)	(5,790)
Effects of exchange rate changes on cash & cash equivalents	112	(210)	(1,661)
	-----	-----	-----
NET CHANGE IN CASH AND CASH EQUIVALENTS	(5,232)	(24,579)	2,196
CASH AND CASH EQUIVALENTS AT BEGINNING OF YEAR	7,170	31,749	29,553
	-----	-----	-----
CASH AND CASH EQUIVALENTS AT END OF YEAR	\$ 1,938	\$ 7,170	\$ 31,749
	=====	=====	=====

See notes to consolidated financial statements.

CONSOLIDATED BALANCE SHEETS
Brush Wellman Inc. and Subsidiaries
December 31, 1998 and 1997
(Dollars in thousands)

ASSETS	1998	1997
	----	----
CURRENT ASSETS		
Cash and cash equivalents	\$ 1,938	\$ 7,170
Accounts receivable (less allowance of \$2,127 for 1998 and \$1,059 for 1997)	62,181	62,812
Inventories	103,108	90,714
Prepaid expenses	7,210	7,195
Deferred income taxes	20,087	11,020
	-----	-----
TOTAL CURRENT ASSETS	194,524	178,911
OTHER ASSETS	44,697	31,319
PROPERTY, PLANT, AND EQUIPMENT		
Land	5,426	5,043
Buildings	88,912	85,721
Machinery and equipment	282,492	312,088
Construction in progress	10,694	26,735
Allowances for depreciation	(236,520)	(272,192)
	-----	-----
	151,004	157,395
Mineral resources	5,101	5,693
Mine development	28,842	28,409
Allowances for amortization and depletion	(20,478)	(17,875)
	-----	-----
	13,465	16,227
	-----	-----
PROPERTY, PLANT, AND EQUIPMENT-- NET	164,469	173,622
	-----	-----
	\$ 403,690	\$ 383,852
	=====	=====
LIABILITIES AND SHAREHOLDERS' EQUITY		
CURRENT LIABILITIES		
Short-term debt	\$ 45,587	\$ 28,877
Accounts payable	15,156	13,519
Salaries and wages	8,381	12,341
Taxes other than income taxes	3,196	2,611
Other liabilities and accrued items	14,905	13,628
Dividends payable	1,966	1,967
Income taxes	4,341	5,369
	-----	-----
TOTAL CURRENT LIABILITIES	93,532	78,312
OTHER LONG-TERM LIABILITIES	10,507	8,200
RETIREMENT AND POST-EMPLOYMENT BENEFITS	39,448	39,825
LONG-TERM DEBT	32,105	17,905
DEFERRED INCOME TAXES	6,287	2,797
SHAREHOLDERS' EQUITY		
Serial preferred stock, no par value; 5,000,000 shares authorized, none issued	--	--
Common stock, \$1 par value		
Authorized 45,000,000 shares; issued 22,481,321 shares (22,227,006 for 1997)	22,481	22,227
Additional paid-in capital	63,974	59,583
Retained income	239,230	254,174
	-----	-----
	325,685	335,984
Common stock in treasury, 6,177,418 shares in 1998 (5,843,561 in 1997)	(104,050)	(96,639)
Other equity transactions	176	(2,532)
	-----	-----
TOTAL SHAREHOLDERS' EQUITY	221,811	236,813
	-----	-----
	\$ 403,690	\$ 383,852
	=====	=====

See notes to consolidated financial statements.

CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY
Brush Wellman Inc. and Subsidiaries
Years ended December 31, 1998, 1997, and 1996
(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, 1996	\$ 21,330	\$ 45,658	\$ 218,209	\$ (84,701)	\$ --	\$ (194)	\$200,302
Net income			24,491				24,491
Foreign currency translation adjustment					27		27
Comprehensive income							--
							24,518
Declared dividends \$.42 per share			(6,657)				(6,657)
Proceeds from sale of 93,710 shares under							
Option plans	94	1,211					1,305
Income tax benefit from employees' stock options		155					155
Purchase of business	368	5,296					5,664
Other equity transactions	117	1,330				(821)	626
Purchase of shares for treasury				(6,656)			(6,656)
	-----	-----	-----	-----	-----	-----	-----
BALANCES AT DECEMBER 31, 1996	21,909	53,650	236,043	(91,357)	27	(1,015)	219,257
Net income			25,597				25,597
Foreign currency translation adjustment					(1,657)		(1,657)
Comprehensive income							-----
							23,940
Declared dividends \$.46 per share			(7,463)				(7,463)
Proceeds from sale of 309,196 shares under							
Option plans	309	4,821					5,130
Income tax benefit from employees' stock options		742					742
Other equity transactions	9	370	(3)			113	489
Forfeiture of restricted stock				(355)			(355)
Purchase of shares for treasury				(4,927)			(4,927)
	-----	-----	-----	-----	-----	-----	-----
BALANCES AT DECEMBER 31, 1997	22,227	59,583	254,174	(96,639)	(1,630)	(902)	236,813
Net loss			(7,132)				(7,132)
Foreign currency translation adjustment					1,563		1,563
Comprehensive loss							-----
							(5,569)
Declared dividends \$.48 per share			(7,812)				(7,812)
Proceeds from sale of 179,101 shares under							
Option plans	179	2,875					3,054
Income tax benefit from employees' stock options		496					496
Other equity transactions	75	1,020		(1,471)		1,145	769
Forfeiture of restricted stock				(591)			(591)
Purchase of shares for treasury				(5,349)			(5,349)
	-----	-----	-----	-----	-----	-----	-----
Balances at December 31, 1998	\$ 22,481	\$ 63,974	\$ 239,230	\$(104,050)	\$ (67)	\$ 243	\$221,811
	=====	=====	=====	=====	=====	=====	=====

See notes to consolidated financial statements

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
Brush Wellman Inc. and Subsidiaries, December 31, 1998

NOTE A-SIGNIFICANT ACCOUNTING POLICIES

ORGANIZATION:The Company is a manufacturer of engineered materials used primarily in the computer, telecommunications, and automotive electronics markets. The Company also sells into the aerospace, appliance, optical media, and industrial components markets. The majority of sales are to customers in North America, Western Europe, and the Pacific rim. The Company's Metal Systems Group produces Alloy Products, Beryllium Products, and Engineered Material Systems while the Microelectronics Group produces precious and non-precious metal materials including physical vapor deposition targets, speciality alloys, ceramics, and thick film circuits. These two business segments are structured based upon commonalities 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 software and hardware	3 to 10

Depreciation expense was \$20,708,000 in 1998, \$18,128,000 in 1997, and \$17,860,000 in 1996.

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 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:Forward foreign exchange currency contracts are marked-to-market using the applicable rates, and any unrealized losses are taken to income. Realized gains and losses on forward contracts and commodity swaps and realized gains on foreign currency options are taken to income when the financial instrument matures. 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, 1999. 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 Statement of Income is an exchange gain (loss) of (\$1,752,000) in 1998, \$2,275,000 in 1997, and \$908,000 in 1996.

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. This Statement requires that deferred income taxes reflect the tax consequences of currently enacted rates for differences between the tax bases of assets and liabilities and their financial reporting amounts.

RECLASSIFICATION: Certain amounts in prior years have been reclassified to conform with the 1998 consolidated financial statement presentation.

NET INCOME PER SHARE:The Company adopted SFAS No. 128, "Earnings per Share", in 1997 as prescribed, replacing the presentation of primary and fully diluted earnings per share (EPS) with a presentation of basic and diluted EPS. Basic EPS is computed by dividing income available to common stockholders by the weighted average number of common shares outstanding for the period. Diluted EPS reflects the assumed conversion of all dilutive common stock equivalents as appropriate under the treasury stock method.

NEW PRONOUNCEMENTS: The Company adopted SFAS No. 130, "Reporting Comprehensive Income", in 1998. Comprehensive income is defined as the change in equity from transactions and other events from non-owner sources. It includes all changes in equity during a period except those resulting from investments by or distributions to owners. Comprehensive income is reported as a component of equity in the Consolidated Statement of Shareholders' Equity.

The Company adopted SFAS No. 131, "Disclosures about Segments of an Enterprise and Related Information", in 1998. This Statement requires selected information on reportable segments to be included in the financial reports issued to shareholders. It also establishes disclosure standards about products and services, geographic areas, and major customers. See Note N to the Consolidated Financial Statements.

The Company also adopted SFAS No. 132, "Employers' Disclosures about Pension and Other Postretirement Benefits", in 1998. This Statement revised the disclosure requirements about pension and other postretirement benefit plans, but did not change the measurement or recognition of those plans. See Note L to the Consolidated Financial Statements.

NOTE B-ACQUISITIONS

At the end of the second quarter of 1998, the Company acquired certain assets of Pure Tech Inc. for cash. In October 1996, the Company acquired the Common Stock of Circuits Processing Technology Inc. for Company Common Stock. These transactions were accounted for as purchases and did not have a material impact on operations.

NOTE C-INVENTORIES

Inventories in the consolidated balance sheets are summarized as follows:

	December 31,	
	1998	1997
	----	----
(Dollars in thousands)		
Principally average cost:		
Raw materials and supplies	\$ 18,708	\$ 17,331
In process	60,919	58,666
Finishedgoods	42,021	37,008
	-----	-----
	121,648	113,005
Excess of average cost over LIFO		
inventory value	18,540	22,291
	-----	-----
	\$103,108	\$ 90,714
	=====	=====

Average cost approximates current cost. Inventories aggregating \$74,175,000 and \$66,221,000 are stated at LIFO at December 31,1998 and 1997, respectively.

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 \$2,732,000, \$2,560,000, and \$2,168,000 in 1998, 1997, and 1996, respectively. Interest costs capitalized and the amounts amortized are as follows:

1998	1997	1996
----	----	----

(Dollars in thousands)			
Interest incurred	\$2,829	\$2,371	\$2,103
Less capitalized interest	1,580	1,818	975
	-----	-----	-----
	\$1,249	\$ 553	\$1,128
	=====	=====	=====
Amortization, included			
principally in cost of sales	\$ 697	\$ 600	\$ 573
	=====	=====	=====

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 \$580,000, \$1,075,000, and (\$190,000) in 1998, 1997, and 1996, respectively. The related interest expense was \$2,966,000, \$3,081,000, and \$5,115,000, respectively.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
Brush Wellman Inc. and Subsidiaries, December 31, 1998

NOTE E-DEBT

A summary of long-term debt follows:

	December 31, 1998	1997
	----	----
(Dollars in thousands)		
9 68% medium-term notes, payable in 2000	\$ 5,000	\$ 5,000
Variable rate demand bonds payable in installments beginning in 2005	3,000	3,000
5 45%-6 45% industrial development revenue bonds payable in equal installments through 2000	1,600	2,400
Variable rate industrial development revenue bonds payable in 2016	8,305	8,305
Revolving credit agreement	15,000	0
	-----	-----
	32,905	18,705
Current portion of long-term debt	(800)	(800)
	-----	-----
	\$ 32,105	\$ 17,905
	=====	=====

Maturities on long-term debt instruments as of December 31, 1998 are as follows:

(Dollars in thousands)	
1999	\$ 800
2000	20,800
2001	0
2002	0
2003	0
Thereafter	11,305

	\$32,905
	=====

The Company has a revolving credit agreement with four banks which provides a maximum availability of \$55,000,000 through April 30, 2000. At December 31, 1998, there is \$15,000,000 in borrowings outstanding against this agreement at a rate of 5.59% that is fixed through February, 1999, 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 at varying maturities.

Included in short-term debt is \$44,787,000 (\$28,077,000 at December 31, 1997) outstanding under lines of credit totaling \$64,747,000 (\$82,894,000 at December 31, 1997). The \$64,747,000 lines of credit consist of \$20,000,000, \$37,903,000, and \$6,844,000 of domestic, foreign, and precious metal (primarily gold) denominated debt, respectively. The domestic and foreign lines are uncommitted, unsecured, and renewed annually. The precious metal facility is secured and renewed annually. Of the amount outstanding, \$12,423,000 is under the uncommitted domestic lines of credit, \$25,544,000 is payable in foreign currencies, and \$6,820,000 is denominated in precious metal, primarily gold. Also included in short-term debt is \$800,000 representing the current maturity of an industrial development revenue bond. The average interest rate on short-term debt was 3.7% and 3.0% as of December 31, 1998 and 1997, 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, 1998). 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 3.09% to 4.64% during 1998 and from 3.32% to 4.79% during 1997.

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 2.95% to 4.45% during 1998 and from 3.15% to 4.65% during 1997. 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, the Company amended 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 \$6.8 million, \$4.3 million, and \$4.7 million during 1998, 1997, and 1996, respectively. The future estimated minimum lease payments under non-cancelable operating leases with initial lease terms in excess of one year at December 31, 1998 are as follows: 1999-\$7.9 million; 2000-\$7.7 million; 2001 -\$7.4 million; 2002-\$ 3.5 million; 2003-\$3.3 million; and thereafter-\$20.1 million.

The Company has agreements for the construction and operating leases of a production facility and certain equipment to be located in that facility. The new facility and related equipment will be owned by third parties and have an estimated cost of \$79.7

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 of the related equipment commence 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 for a substantial residual value guarantee by the Company at the termination of the lease. The Company has guaranteed performance under the construction contracts for the facility and equipment. 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 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

FOREIGN EXCHANGE HEDGE CONTRACTS

The Company has a program in place to manage foreign currency risk. As part of that program, the Company has entered into 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 foreign currency transactions from adverse exchange rate movements. Should the U.S. dollar strengthen significantly, the decrease in the value of the foreign currency transactions will be partially offset by the gains on the hedge contracts. Depending upon the method used, the hedges may limit the benefits from a weakening of the U.S. dollar.

All hedge contracts mature in two years or less. The Company recorded an unrealized loss of \$738,000 on forward contracts as of December 31, 1998. The contracted amounts of the Company's outstanding forward and "in-the-money" option contracts as of December 31, 1998 were as follows:

	FORWARD CONTRACTS	OPTION CONTRACTS
	-----	-----
(Dollars in thousands)		
Currency:		
Deutschmark	\$13,300	\$ 9,800
Yen	7,800	4,200
Sterling	4,200	-0-
	-----	-----
Total	\$25,300	\$14,000
	=====	=====

Option contracts which were "out-of-the-money" due to exchange rates at year-end are excluded from the above tables.

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 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. By using swaps, the Company limits the opportunity to benefit from favorable price movements.

At December 31, 1998, the Company had outstanding contracts through the year 2000 with a fair value of (\$1,200,000) and a notional value of \$8,100,000. At December 31, 1997, the fair value of the outstanding contracts was (\$1,000,000) and the notional value was \$12,900,000. The Company accounts for these swaps as hedges.

SFAS No.107 defines fair value as the amount at which the instrument could be exchanged in a current transaction between willing parties, other than in a forced or liquidation sale.

INTEREST RATE SWAP AGREEMENTS

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. The fair value of the contract as of December 31, 1998 was (\$2,418,000).

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 through its expiration in 2008. 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. The fair value of the contract as of December 31, 1998 was (\$1,773,000).

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. The fair value of this swap at December 31, 1998 was (\$117,000).

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
Brush Wellman Inc. and Subsidiaries, December 31, 1998

LONG AND SHORT-TERM DEBT

The fair value of the Company's debt (which had a carrying value of \$77,703,000) at December 31, 1998 was estimated at \$78,090,000 using a discounted cash flow analysis based on the Company's current incremental borrowing rates for similar types of borrowing arrangements. At December 31, 1997, the fair value of the Company's \$46,782,000 of debt was estimated at \$44,289,000 using the same procedure.

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 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 purchase 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, 1998, the Company purchased 455,600 shares at a total cost of \$10.3 million.

In December 1995, the Company's Board of Directors authorized a purchase of up to 1,000,000 shares of its Common Stock. Through December 31, 1996, the Company purchased 524,400 shares at a total cost of \$9,481,000 under this program. In May 1996, the Company's Board of Directors withdrew the authority for additional share purchases.

The amended 1995 Stock Incentive Plan authorizes the granting of five categories of incentive awards: performance restricted shares, performance shares, performance units, restricted shares, and option rights. In 1998, a total of 60,450 performance restricted shares, 30,225 performance shares, and 16,900 special restricted shares (1,000 were subsequently forfeited) were granted to certain employees. In 1997, a total of 9,000 special restricted shares (2,000 were subsequently forfeited) were granted to certain employees. In 1996, a total of 116,653 performance restricted shares and 118,127 performance shares were granted to certain employees. 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 and amounted to \$1,394,000 and \$270,000 in 1998 and 1997, respectively.

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) were 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 provided 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.

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:

		1998	1997	1996
		----	----	----
(Dollars in thousands except per share amounts)				
Net income (loss)	As reported	\$ (7,132)	\$ 25,597	\$ 24,491
	Pro Forma	\$ (7,973)	\$ 25,113	\$ 24,048
Basic E.P.S.	As reported	\$ (0.44)	\$ 1.58	\$ 1.55
	Pro Forma	\$ (0.49)	\$ 1.55	\$ 1.52
Diluted E.P.S.	As reported	\$ (0.44)	\$ 1.56	\$ 1.53
	Pro Forma	\$ (0.49)	\$ 1.53	\$ 1.50

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 \$7.13, \$4.99, and \$5.96 for 1998, 1997, and 1996, 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 1998, 1997, and 1996:

	1998	1997	1996
	----	----	----
Risk-free interest rate	5.65%	6.15%	6.88%
Dividend yield	2.33%	2.00%	2.03%
Volatility of stock	31.60%	29.90%	29.35%
Expected life of option	4 years	4 years	10 years

A summary of option activity during the years 1998, 1997, and 1996 follows:

	Shares	Range of Option Price	Weighted Average Exercise Price
	-----	-----	-----
Outstanding at December 31, 1995	1,661,740	\$11.81 to \$38.94	\$ 18.32
Granted	35,000	\$18.63 to \$19.06	\$ 18.69
Exercised	(93,710)	\$12.00 to \$15.75	\$ 13.93
Canceled	(58,460)	\$12.00 to \$38.94	\$ 30.98

Outstanding at December 31, 1996	1,544,570	\$11.81 to \$38.94	\$ 18.12
Granted	217,550	\$18.13 to \$23.78	\$ 18.39
Exercised	(309,696)	\$12.00 to \$22.06	\$ 16.65
Canceled	(107,040)	\$13.56 to \$38.94	\$ 28.79

Outstanding at December 31, 1997	1,345,384	\$11.81 to \$29.94	\$ 17.62
Granted	200,650	\$16.06 to \$26.72	\$ 26.30
Exercised	(179,101)	\$12.00 to \$25.50	\$ 17.35
Canceled	(92,890)	\$13.56 to \$29.94	\$ 24.18

Outstanding at December 31, 1998	1,274,043	\$11.81 to \$28.38	\$ 18.57
	=====		

At December 31, 1998, options for 1,070,653 shares (1,141,774 shares at December 31, 1997) were exercisable with a weighted average remaining life of 5.6 years and 5.5 years for 1998 and 1997, respectively, and a weighted average exercise price of \$17.85 and \$17.58 for 1998 and 1997, respectively. The outstanding options as of December 31, 1998 may be divided into the following ranges:

Range of Option Prices	Outstanding	Exercisable	Weighted Average Remaining Life
-----	-----	-----	-----
\$11.81 to \$17.69	677,243	655,133	4.86
\$18.13 to \$23.78	407,450	327,020	5.06
\$26.72 to \$28.38	189,350	88,500	9.25
	-----	-----	
	1,274,043	1,070,653	
	=====	=====	

As of December 31, 1998, there were 897,297 shares (194,757 at December 31, 1997) available for future grants.

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 Income Statement for the year ended December 31, 1998. 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.

In analyzing the strategic plans for each of the Company's business units, management determined that the carrying value of certain assets within its Microelectronics and Metal Systems Groups were impaired based upon current cash flow projections. 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 in the second quarter 1998. The fair market value was determined by a discounted cash flow analysis using the Company's estimated pre-tax weighted average cost of capital. The impaired assets may be held for future use. The \$14.3 million impairment is included in Other-net on the Consolidated Income Statement.

An increase in the environmental reserve of \$2.1 million was recorded as a long-term liability recognizing the Company's plan to pursue a voluntary remediation program of a former manufacturing site of a subsidiary. Payments of less than \$0.1 million were made against this reserve in 1998. The allowance for doubtful accounts was increased by \$0.6 million although the Company continues to pursue collection of this receivable. The remaining \$5.6 million of the charge was for inventory write-downs resulting from reduced growth expectations and current market conditions, accelerated depreciation and amortization of fixed assets and associated prepaid manufacturing expenses for items to be taken out of service as a result of new investments or other changes in operations.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
Brush Wellman Inc. and Subsidiaries, December 31, 1998

NOTE J-INCOME TAXES

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

	1998 ----	1997 ----	1996 ----
(Dollars in thousands)			
Income(loss) before income taxes:			
Domestic	\$(12,730)	\$30,993	\$ 28,750
Foreign	1,168	4,478	4,427
	-----	-----	-----
Total before income taxes	\$(11,562)	\$35,471	\$ 33,177
	=====	=====	=====
Income taxes(benefit):			
Current income taxes:			
Domestic	\$ 442	\$ 5,982	\$ 7,736
Foreign	705	2,524	2,089
	-----	-----	-----
Total current	1,147	8,506	9,825
Deferred income taxes:			
Principally domestic	(5,577)	1,368	(1,139)
	-----	-----	-----
Total income taxes	\$ (4,430)	\$ 9,874	\$ 8,686
	=====	=====	=====

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

	1998 ----	1997 ----	1996 ----
Federal statutory rate	(34.0)%	35.0%	35.0%
State and local income taxes, net of federal tax effect	1.3	1.7	1.1
Effect of excess of percentage depletion over cost depletion	(14.7)	(5.5)	(4.9)
Company-owned life insurance	(4.3)	(1.5)	(3.6)
Difference due to book and tax and tax basis of assets of acquired businesses	14.2	0.4	1.1
Taxes on foreign income-net	(3.6)	(1.2)	(1.2)
Other items	2.8	(1.1)	(1.3)
	-----	-----	-----
Effective tax rate	(38.3)%	27.8%	26.2%
	=====	=====	=====

Included in income taxes currently payable, as shown in the Consolidated Statements of Income, are \$234,000, \$935,000, and \$585,000 of state and local income taxes in 1998, 1997, and 1996, respectively.

The Company made domestic and foreign income tax payments, net of refunds, of \$1,650,000, \$10,507,000, and \$11,144,000 in 1998, 1997, and 1996, respectively.

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:

	1998 ----	1997 ----
(Dollars in thousands)		
Postretirement benefits other than pensions	\$ 12,476	\$ 12,455
Alternative minimum tax credit	11,691	5,582
Other reserves	8,094	7,095
Environmental reserves	2,684	1,666
Inventory	1,893	--
Miscellaneous	265	652
	-----	-----
Total deferred tax assets	37,103	27,450
Depreciation	(14,562)	(9,765)
Pensions	(3,968)	(3,946)
Mine development	(3,444)	(4,139)
Capitalized interest expense	(1,329)	(1,179)
Inventory	--	(198)

Total deferred tax liabilities	----- (23,303)	----- (19,227)
Net deferred tax asset	----- \$ 13,800	----- \$ 8,223
	=====	=====

NOTE K-EARNINGS PER SHARE

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

	1998 ----	1997 ----	1996 ----
Numerator for basic and diluted E.P.S.:			
Net income (loss)	\$ (7,132,000)	\$25,597,000	\$24,491,000
Denominator:			
Denominator for basic E P S			
Weighted-average shares outstanding	16,267,804	16,214,718	15,846,358
Effect of dilutive securities:			
Employee stock options	--	194,189	112,440
Performance restricted stock	--	18,680	12,857
Special restricted stock	--	1,881	8,826
	-----	-----	-----
Diluted potential common shares	--	214,750	134,123
	-----	-----	-----
Denominator for diluted E P S			
Adjusted weighted-average shares outstanding	16,267,804	16,429,468	15,980,481
	=====	=====	=====
Basic E.P.S.	\$ (0.44)	\$ 1.58	\$ 1.55
	=====	=====	=====
Diluted E.P.S.	\$ (0.44)	\$ 1.56	\$ 1.53
	=====	=====	=====

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.

NOTE L-PENSIONS AND OTHER POSTRETIREMENT BENEFITS

	PENSION BENEFITS		OTHER BENEFITS	
	1998	1997	1998	1997
(dollars in thousands)				
CHANGE IN BENEFIT OBLIGATION				
Benefit obligation at end of prior year	\$ 71,668	\$ 69,187	\$ 30,775	\$ 31,843
Service cost	3,063	2,434	345	312
Interest cost	5,154	4,916	2,122	2,174
Amendments	5,025	924	--	--
Actuarial (gain) loss	3,552	(1,902)	274	(1,493)
Benefit payments	(3,668)	(3,891)	(2,186)	(2,061)
	-----	-----	-----	-----
Benefit obligation at end of year	84,794	71,668	31,330	30,775
	-----	-----	-----	-----
CHANGE IN PLAN ASSETS				
Fair value of plan assets at end of prior year	96,372	84,819	--	--
Actual return on plan assets	17,316	15,433	--	--
Employer contributions	17	11	2,186	2,061
Plan participants contributions	--	--	--	--
Benefit payments	(3,668)	(3,891)	(2,186)	(2,061)
	-----	-----	-----	-----
Fair value of plan assets at end of year	110,037	96,372	--	--
	-----	-----	-----	-----
Funded status	25,243	24,704	(31,330)	(30,775)
Unrecognized net actuarial (gain) loss	(19,989)	(13,811)	(5,386)	(5,875)
Unrecognized prior service cost	7,984	3,182	--	--
Unrecognized initial net (asset) obligation	(2,601)	(3,308)	--	--
	-----	-----	-----	-----
Net amount recognized	\$ 10,637	\$ 10,767	\$ (36,716)	\$ (36,650)
	-----	-----	-----	-----
AMOUNTS RECOGNIZED IN THE CONSOLIDATED BALANCE SHEET CONSIST OF:				
Prepaid benefit cost	12,988	12,615	--	--
Accrued benefit liability	(2,351)	(1,848)	(36,716)	(36,650)
	-----	-----	-----	-----
Net amount recognized	\$ 10,637	\$ 10,767	\$ (36,716)	\$ (36,650)
	-----	-----	-----	-----
WEIGHTED-AVERAGE ASSUMPTIONS AS OF DECEMBER 31				
Discount rate	7.00%	7.25%	7.00%	7.25%
Expected return on plan assets	9.00%	9.00%	N/A	N/A
Rate of compensation increase	5.00%	5.00%	N/A	N/A

For measurement purposes, a 6.75 percent annual rate of increase in the per capita cost of covered health care benefits was assumed for 1999. The rate was assumed to decrease gradually to 5.0 percent for 2002 and remain at that level thereafter.

COMPONENTS OF NET PERIODIC BENEFIT COST

Service cost				
Interest cost	\$ 3,063	\$ 2,434	\$ 345	\$ 312
Expected return on plan assets	5,154	4,916	2,122	2,174
Amortization of prior service cost	(7,589)	(7,082)	--	--
Amortization of initial net (asset) obligation	340	258	--	--
Recognized net actuarial (gain) loss	(707)	(707)	--	--
Net periodic benefit cost	3	2	(215)	(230)
	-----	-----	-----	-----
	\$ 264	\$ (179)	\$ 2,252	\$ 2,256
	=====	=====	=====	=====

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 \$1,275,000, \$852,000, and \$0, respectively, as of December 31, 1998, and \$1,003,000, \$639,000, and \$0, respectively, as of December 31, 1997.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
Brush Wellman Inc. and Subsidiaries, 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:

	1-PERCENTAGE POINT INCREASE -----	1-PERCENTAGE POINT DECREASE -----
(Dollars in thousands)		
Effect on total of service and interest cost components	\$ 104	\$ (92)
Effect on postretirement benefit obligation	1,638	(1,402)

The Company also has accrued unfunded retirement arrangements for certain directors. At December 31, 1998, the projected benefit obligation was \$239,000 (\$1,038,000 in 1997). A corresponding accumulated benefit obligation of \$239,000 (\$995,000 in 1997) 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 \$2,291,000 in 1998, \$2,207,000 in 1997, and \$1,844,000 in 1996.

NOTE M-CONTINGENCIES AND COMMITMENTS

The Company is, from time to time, involved in various legal and other proceedings that relate to the ordinary course of operating its business, including, but not limited to: employment-related actions, product liability claims, and workers' compensation claims.

While the Company is unable to predict the outcome of current proceedings, based upon currently known facts, the Company does not believe that resolution of these proceedings will have a material adverse effect on the financial condition or operations of the Company.

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. For projects involving remediation, estimates of the probable costs are made and the Company established undiscounted reserves of \$7.9 million at December 31, 1998 (\$5.1 million at December 31, 1997). These reserves cover existing or currently foreseen projects. Expenditures are charged to the reserve which is adjusted from time to time as additional projects are identified and for which probable costs of remediation can be estimated. The current portion of the reserve is included in the balance sheet as Other liabilities and accrued items while the long-term portion is included under Other long-term liabilities.

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 1998, 1997 and 1996 are as follows.

	Metal Systems -----	Micro- Electronics -----	All Other -----	Total -----
(Dollars in thousands)				
1998				

Revenues from external customers	\$295,705	\$ 106,347	\$ 7,840	\$ 409,892
Intersegment revenues	482	1,145	--	1,627
Special charge	--	--	22,572	22,572
Depreciation, depletion and amortization	15,716	2,283	6,590	24,589
Segment profit (loss) before taxes	27,897	2,120	(40,330)	(10,313)
Segment assets	262,847	51,052	89,791	403,690
Expenditures for long-lived assets	21,054	7,432	8,679	37,165
1997				

Revenues from external customers	302,403	124,418	6,980	433,801
Intersegment revenues	1,616	773	--	2,389
Special charge	--	--	--	--
Depreciation, depletion and amortization	12,870	2,543	3,916	19,329
Segment profit (loss) before taxes	51,024	2,860	(17,860)	36,024
Segment assets	253,462	48,000	82,390	383,852
Expenditures for long-lived assets	42,302	2,502	17,877	62,681
1996				

Revenues from external customers	292,479	76,900	6,900	376,279
Intersegment revenues	--	1,184	--	1,184
Special charge	--	--	--	--
Depreciation, depletion and amortization	12,866	2,376	7,712	22,954
Segment profit (loss) before taxes	56,305	(1,700)	(20,300)	34,305
Segment assets	220,585	43,458	91,736	355,779
Expenditures for long-lived assets	17,974	3,144	9,370	30,488

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 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 \$327,927,000 in 1998, \$345,100,000 in 1997, and \$301,451,000 in 1996. Revenues attributed to countries based upon the location of customers and long-lived assets deployed by the Company, by country, are as follows:

	1998 ----	1997 ----	1996 ----
(Dollars in thousands)			
Revenues			

United States	\$280,830	\$291,378	\$267,877
All Other	129,062	142,423	108,402

Total	\$409,892	\$433,801	\$376,279
Long-Lived Assets			

United States	\$166,979	\$172,623	\$128,304
All Other	6,283	6,128	7,390

Total	\$173,262	\$178,751	\$135,694

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.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)
Brush Wellman Inc. and Subsidiaries, December 31, 1998

NOTE O-QUARTERLY DATA

(Dollars in thousands except per share data)

1998					
	First Quarter -----	Second Quarter -----	Third Quarter -----	Fourth Quarter -----	Total -----
Net sales	\$ 114,181	\$ 102,992	\$ 96,240	\$ 96,479	\$ 409,892
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 of 1998 is \$15.9 million of the \$16.5 million after tax special charge.

1997					
	First Quarter -----	Second Quarter -----	Third Quarter -----	Fourth Quarter -----	Total -----
Net sales	\$ 99,688	\$ 113,374	\$ 109,073	\$ 111,666	\$ 433,801
Gross profit	24,782	28,866	26,292	29,398	109,338
Percent of sales	24.9%	25.5%	24.1%	26.3%	25.2%
Net income	6,490	7,489	3,989	7,629	25,597
Earnings per share of common stock:					
Basic	0.40	0.46	0.25	0.47	1.58
Diluted	0.40	0.46	0.24	0.46	1.56
Dividends per share of common stock	0.11	0.11	0.12	0.12	0.46
Stock price range					
High	19.25	22.13	26.81	25.87	
Low	16.25	17.75	20.94	23.06	

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, 1998 and 1997, and the related consolidated statements of income, shareholders' equity, and cash flows for each of the three years in the period ended December 31, 1998. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. 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, 1998 and 1997, and the consolidated results of their operations and their cash flows for each of the three years in the period ended December 31, 1998 in conformity with generally accepted accounting principles.

*/s/ Ernst & Young LLP
Cleveland, Ohio
January 26, 1999*

REPORT OF MANAGEMENT

The management of Brush Wellman Inc. is responsible for the contents of the financial statements, which are prepared in conformity with generally accepted accounting principles. The financial statements necessarily include amounts based on judgements and estimates. Financial information elsewhere in the annual report is consistent with that in the financial statements.

The Company maintains a comprehensive accounting system, which includes controls designed to provide reasonable assurance as to the integrity and reliability of the financial records and the protection of assets. However, there are inherent limitations in the effectiveness of any system of internal controls and, therefore, it provides only reasonable assurance with respect to financial statement preparation. An internal audit staff is employed to regularly test and evaluate both internal accounting controls and operating procedures, including compliance with the Company's statement of policy regarding ethical and lawful conduct. The role of the independent auditors is to provide an objective review of the financial statements and the underlying transactions in accordance with generally accepted auditing standards.

The Audit Committee of the Board of Directors, comprised solely of Directors who are not members of management, meets regularly with management, the independent auditors, and the internal auditors to ensure that their respective responsibilities are properly discharged. The independent auditors and the internal audit staff have full and free access to the Audit Committee.

*/s/ John D. Grampa
John D. Grampa
Vice President, Finance*

MANAGEMENT 'S DISCUSSION AND ANALYSIS

FORWARD-LOOKING INFORMATION

Portions of the narrative set forth in this document that are not historical in nature are forward-looking statements. The Company's 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 Year 2000 remediation projects, and the conclusion of pending litigation matters in accordance with the Company's expectation that there will be no materially adverse effects.

RESULTS OF OPERATIONS 1998 TO 1997 COMPARISON

Worldwide sales of \$409.9 million in 1998 were 6% lower than the record \$433.8 million of sales in 1997. Sales and profits from both the Metal Systems Group and Microelectronics Group declined in 1998 from 1997. The Company also recorded a \$22.6 million special charge (see Note I to the Consolidated Financial Statements) to write-down certain assets and establish various reserves. This resulted in a per share loss of \$0.44 in 1998 compared to net income per share of \$1.56 in 1997. Absent the special charge, earnings per share would have been \$0.57 in 1998.

Metal Systems Group sales were \$295.7 million in 1998 compared to \$302.4 million in 1997. Products sold by the Metal Systems Group include Alloy Products (primarily copper-beryllium), Engineered Material Systems, and Beryllium Products. These products are used in a wide variety of applications where superior electrical conductivity, formability, wear resistance, high strength, or hardness characteristics may be required. They are sold into the telecommunications, computer, automotive, aerospace/defense, plastic molds, and appliance markets. Copper is a large component of these sales and changes in the market price of raw copper generally are passed through to the Company's domestic customers. Average copper prices were lower in 1998 than 1997 thereby reducing reported revenues but not margins. The U.S. dollar strengthened in 1998 compared to 1997 and, as a result, the translated value of Metal Systems' foreign currency denominated sales declined. Had copper prices and exchange rates in 1998 been equal to 1997 (and assuming no other changes to 1998's volumes and prices), Metal Systems' sales would have been slightly higher than last year.

The Company has an active sales, marketing, and distribution program designed to develop and penetrate new markets and applications while servicing current customer needs. Demand from the aerospace and plastic mold markets remained strong in 1998. However, a general softness in the telecommunications and computer markets beginning in the second quarter and the General Motors strike during the second and third quarters negatively impacted sales volumes. Sales into the defense market, which is a considerably smaller market for the Company compared to a decade ago, were solid in the first half of the year but slowed down in the second half. European sales of Metal Systems products increased over last year, but the weak economic conditions in Asia caused a decline of sales in that region. Prior to this year, sales of alloy strip and bulk products through the Company's Japanese subsidiary had increased every year since its formation in the mid-1980s.

Worldwide sales of alloy strip and bulk products in pounds were 6% higher than 1997 and a new record high. Shipments from the new facility in Lorain, Ohio that produces a family of non-beryllium containing alloys were a minor contributor to this increase. Engineered Material Systems revenues declined 3% in 1998 from 1997 after five straight years of growth.

Capacity and material flow issues at the Company's Elmore, Ohio facility constrained the growth of Metal Systems sales and, in particular, alloy strip products. The construction of the \$117 million Alloy Expansion Project continued and the new cast shop portion of the project has been placed in service. However, start-up costs and yield problems were worse than anticipated. The lower yields were caused by casting issues, which at times were not detectable until further processing in the strip mill. The strip mill needed to operate at full capacity with high quality input material in order to satisfy current customer demand, and the lower yield reduced the mill's output. Casting quality and flow of material did improve in the latter part of the year. The balance of the Alloy Expansion Project, the new strip mill, has also been installed and is undergoing testing and qualification. Portions of the equipment are being used to produce salable product in early 1999 with the full line anticipated to be integrated into full

production in the third quarter of 1999. The start-up costs and inefficiencies from the Alloy Expansion Project were approximately \$4.0 million higher than in 1997 and served to reduce margins earned on Metal Systems sales. It is anticipated that start-up costs in 1999 associated with the strip mill will be less than the 1998 start-up costs.

Microelectronics Group sales were \$106.3 million in 1998 compared to \$124.4 million in 1997. Markets served by this group include telecommunications, automotive, optical media, aerospace, and medical. The major product forms manufactured and sold are precious and non-precious metal physical vapor deposition (PVD) targets, beryllium ceramics, direct bond copper, copper tungsten, and thick film circuits. The decline in sales from 1997 is primarily a result of a planned substitution of silver for gold in 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 is a straight pass through. While the reported revenue from PVD is lower, the actual number of targets and the resulting value added (revenue less the cost of the metal) were higher in 1998 than 1997. At the end of the second quarter 1998, the Company acquired the assets of Pure Tech Inc., a manufacturer of non-precious metal PVD targets. The Company also undertook a capital investment program to expand these operations and augment its current product offerings.

Sales of Ceramic Products declined slightly from the prior year as the softness in the telecommunications market and the General Motors strike also negatively impacted these sales. The Company expanded its Tucson, Arizona plant and created a separate facility dedicated to the development and manufacture of copper tungsten products. These products will be sold into the markets currently served by Ceramics. Direct bond copper sales were disappointing in 1998 and the high manufacturing costs caused by poor yields prevented the Company from achieving reasonable margins on these products. Production processes were revised, and by year-end 1998, yield rates had improved significantly. Sales of thick film circuits, manufactured at the Oceanside, California facility, were flat with the prior year and remain a small portion of the Company's total revenue.

Sales from international operations were \$82.0 million in 1998 compared to \$88.7 million in 1997. International operations consist of distribution centers in Germany, England, Japan, and Singapore, as well as a precious metal finishing operation in Singapore. The Company also has a network of independent agents and distributors throughout the world. The international markets served are essentially the same as in the U.S. The distribution centers typically price in their local currency and face competition based in that country. Since the majority of the product cost is incurred in U.S. dollars, a strengthening of the U.S. dollar reduces the translated value of sales and the resulting margins. Direct exports to unaffiliated customers were \$47.1 million in 1998 and \$53.7 million in 1997. These sales are denominated in U.S. dollars. Approximately 80% of total international sales (sales by international operations and direct exports) are from the Metal Systems Group.

Gross margin was \$84.7 million or 20.7% of sales in 1998 compared to \$109.3 million or 25.2% of sales in 1997. Included in cost of sales and serving to reduce 1998's margin is \$5.6 million of the special charge. The charge will be described below. In addition to the start-up costs and currency effect, 1998 margins were reduced by approximately \$5.0 million in higher fixed costs associated with the recent capital investments (i.e. depreciation, lease charges, taxes, and insurance). These costs are anticipated to increase again in 1999 as lease payments for the new strip mill equipment in Elmore will begin in March 1999. The decline in gross margin, other than the special charge, is in the Metal Systems Group. The Microelectronics Group gross margin was level with the prior year. Prices in general were stable, but there was a slight mix shift towards lower priced, but not necessarily lower margin percent, products.

Selling, administrative, and general expenses declined to \$64.6 million in 1998 from \$65.3 million in 1997. Lower incentive compensation expenses and planning and development work for the new Lorain facility incurred in 1997, but not 1998, were the main reasons for the lower expenses. In addition, the stronger U.S. dollar reduced the translated value of the international operations' expenses by \$0.5 million compared to the prior year.

Research and development (R&D) expenses were \$8.7 million, or 2.1% of sales in 1998, versus \$7.7 million, or 1.8% of sales in 1997. The majority of R&D expense supports the Metal Systems Group sales. The major increase was for development of alloys to be produced at the Company's Lorain facility. Additional research dollars were also invested to support casting techniques and processes.

MANAGEMENT 'S DISCUSSION AND ANALYSIS (CONTINUED)

Other-net expense includes \$17.0 million of the \$22.6 million special charge in 1998. The charge includes the write-down of certain fixed assets and related intangibles in the Microelectronics and Metal Systems Groups to their estimated fair market values in accordance with SFAS No. 121. The Company's current long-term strategic plans anticipate only modest growth from certain operations, and the projected cash flows were not sufficient to support the carrying value of these assets. The written-down assets were generally not taken out of service. Charges were also recorded for assets that will no longer be in service as a result of new capital investments. A reserve for environmental expenses was recorded in support of a plan to pursue a voluntary remediation program of a former manufacturing site of a subsidiary under the State of Ohio's Voluntary Action Program. The special charge is consistent with the Company's long-term goals and objectives and does not suggest any plans to exit any of the Company's current businesses at the present time.

Absent the special charge, Other-net was \$4.8 million in 1998 compared to \$0.3 million in 1997. Exchange gains/losses account for \$4.0 million of this difference. Interest income was \$0.7 million lower in 1998 than 1997 due to the decrease in cash balances.

The 1998 operating loss was \$10.3 million compared to a profit of \$36.0 million in 1997. Excluding the special charge, the 1998 operating profit would have been \$12.3 million. Metal Systems' operating profit decreased from \$51.0 million in 1997 to \$27.9 million in 1998 because of the start-up costs and yield issues in Elmore, the higher fixed costs from new investments, and the unfavorable currency effect. Microelectronics' operating profit of \$2.1 million is down slightly from the prior year. The special charge was recorded centrally and not charged back against either group's profits.

Interest expense was \$1.2 million in 1998 and \$0.6 million in 1997. These figures are net of capitalized interest of \$1.6 million in 1998 and \$1.8 million in 1997 associated with long-term capital projects. Debt levels increased significantly throughout 1998 and the average debt level was higher in 1998 than 1997. The average borrowing rate was 0.5% lower in 1998 than 1997.

Income taxes were provided at a rate of 38.3% of the loss before income taxes in 1998 and 27.8% of the income before income taxes in 1997. Adjustments to the statutory tax rate are detailed in Note J to the Consolidated Financial Statements. The diluted loss per share was \$0.44 in 1998 compared to diluted earnings per share of \$1.56 in 1997.

The Company is subject to litigation involving claims relating to product liability and other claims relating to alleged beryllium disease exposure (see "Legal Proceedings" in the Company's Annual Report on Form 10-K). Management believes that the Company has substantial defenses and intends to vigorously contest such suits. However, the Company's results of operations could be materially affected by unfavorable results in one or more of these cases. Based on information known to the Company and assuming collectibility of insurance on covered claims, management believes the outcome of the Company's pending litigation should not have a material adverse effect upon the consolidated financial position, results of operations, or the cash flow of the Company.

1997 TO 1996 COMPARISON

Sales in 1997 were a record \$433.8 million, a 15% improvement over 1996 sales of \$376.3 million, and an increase for the fifth consecutive year. Diluted earnings per share grew to \$1.56 in 1997 from \$1.53 in 1996.

Metal Systems sales were \$302.4 million in 1997 compared to \$292.5 million in 1996. Alloy Products strip sales posted significant gains in 1997 over 1996 in the domestic and international markets. Pounds shipped increased at a higher rate than the sales value as a large portion of the additional sales were in relatively lower priced alloys. The translation rate differences also adversely affected international sales. Strip production was near capacity for most of the year. The new casting facility in Elmore, Ohio, part of the three year \$117 million alloy expansion project, started up on schedule late in the fourth quarter of 1997. Alloy Products bulk sales declined year over year due to lower sales to the recreation and leisure market, while bulk product sales to other markets increased slightly in 1997 over 1996. To augment the markets served by its traditional beryllium alloy bulk products, the Company completed construction of a new facility in Lorain, Ohio. Production in limited quantities began in the fourth quarter 1997. Sales of Engineered Material Systems grew to record levels once again. Engineered Material Systems includes clad inlay or overlay metals, contour profiling of metals, electron beam welded metal systems, precious and base metal electroplating, and solder-coated metal systems, or any combinations of these systems. Beryllium Products sales also grew in 1997 from 1996. AlBeMet((R)) sales, while still relatively small, increased in 1997. Investment cast products also offer an opportunity for growth. Beryllium metal sales, primarily for defense applications, were flat year over year.

Sales of Microelectronics Group products increased dramatically to \$124.4 million in 1997 from \$76.9 million in 1996. The majority of the sales growth was in precious metals, primarily physical vapor deposition targets used in the optical data storage and hybrid electronic markets. Revenues from the Company's gold refining operations increased in 1997 as well. Because of the high precious metal content, the cost of which is passed through to customers, these sales have a lower margin percent than the average margins earned on the Company's other products. While profitable, the large increase in precious metal sales has the effect of lowering the Company's overall gross margin percent.

Ceramic Products sales were higher in 1997 than 1996 on the strength of additional base beryllia ceramic sales to the telecommunications market. Direct bond copper sales increased slightly. Thick film circuits were a minor contributor to the increased sales in 1997 from 1996.

Sales by international operations totaled \$88.7 million in 1997 compared to \$74.8 million in 1996. Direct exports were \$53.7 million in 1997 and \$33.6 million in 1996.

Gross margin was \$109.3 million in 1997, a gain of \$4.2 million from 1996. However, the margin percentage declined to 25.2% of sales from 27.9%. The two major causes for the decline in the percentage were the effects of the stronger U.S. dollar and the mix effect of higher Microelectronics Group sales that carry smaller margins as previously discussed. Capacity constraints at several facilities within the Metal Systems Group created additional cost pressures (increased overtime, limited availability of the optimal equipment, etc.). The cost of copper, typically passed through to customers, was essentially flat year on year. Selling prices in general were fairly stable during 1997.

Selling, administrative, and general expenses were \$65.3 million or 15.1% of sales in 1997 compared to \$61.6 million or 16.4% of sales in 1996. Costs associated with the start-up of the new facility in Lorain and charges for the company-owned life insurance program were two main causes for the increase. The expense portion of the new computer based information system project, begun in 1996, continued into 1997.

R&D expenses were \$7.7 million or 1.8% of sales in 1997, a decline from \$8.3 million or 2.2% of sales in 1996. Expenses were lower in 1997, in part, because of reimbursements for R&D work performed under government contracts. Additionally, two major initiatives in 1996 achieved their objectives in early 1997 and, therefore, caused a reduction in expenditures.

Other-net expense was \$0.3 million in 1997 and \$1.0 million in 1996. Foreign currency hedge gains were higher in 1997 than 1996 while goodwill expense was lower in 1997. Partially offsetting these benefits was an increase in the cost of financing the consigned platinum and palladium inventory that support a portion of the precious metal business. Major disruptions to the supply of metal in the international markets in the summer of 1997 caused the higher consignment rates. By the end of 1997, these rates had significantly declined, although they still were higher than the typically nominal rates of prior years. The Company has taken additional measures to reduce its exposures.

Operating profit for Metal Systems was \$51.0 million in 1997, a 10% decrease from 1996 while Microelectronics' profit improved to \$2.9 million after posting a loss of \$1.7 million in 1996.

Interest expense was \$0.6 million in 1997 versus \$1.1 million in 1996, net of capitalized interest associated with long-term capital projects of \$1.8 million in 1997 and \$1.0 million in 1996. The higher incurred interest expense in 1997 was the result of increased borrowings, however, the weighted average interest rate declined slightly in 1997 from 1996.

Income before income taxes was \$35.5 million in 1997, an increase of \$2.3 million from 1996. As explained above, this improvement was due to higher sales volume generating an increase in margin that was partially offset by an unfavorable currency effect and higher expenses.

The Company's effective tax rate was 27.8% of pre-tax earnings in 1997 compared to 26.2% in 1996. Higher earnings and a decreased tax benefit from the company-owned life insurance program caused the increase in the rate. Adjustments to the statutory tax rate are detailed in Note J to the Consolidated Financial Statements.

Comparative basic earnings per share were \$1.58 in 1997 and \$1.55 in 1996. Diluted earnings per share were \$1.56 in 1997 and \$1.53 in 1996.

MANAGEMENT 'S DISCUSSION AND ANALYSIS (CONTINUED)

FINANCIAL POSITION

Cash flow from operations was \$19.5 million in 1998 versus \$40.4 million in 1997. The main differences are the lower net income in 1998, absent the special charge, and an increase in inventories. The recording of the special charge had no effect on cash flow in 1998. Cash balances at the end of 1998 were \$1.9 million compared to \$7.2 million at year-end 1997.

Inventories increased by \$12.4 million during 1998. A portion of this increase is in work-in-process at the Elmore facility. The Company attempts to recycle as much of its beryllium containing scrap as feasible. The abnormally low yield rate caused by the casting process in 1998 produced higher levels of scrap. This scrap is maintained in inventory at the appropriate input feed value and is available for remelting and reprocessing into good product. The start-up of manufacturing operations at the Lorain facility and the acquisition of the assets of Pure Tech Inc. also contributed to the inventory increase.

Capital expenditures for property, plant, and equipment and mine development expenditures were \$37.2 million in 1998. Expenditures incurred by Metal Systems totaled \$21.1 million and included a portion of the payments for the Alloy Expansion Project in Elmore, Ohio and new plating lines and rolling mills for the Lincoln, Rhode Island facility. The \$117 million Alloy Expansion Project began in 1995 and is expected to be completed in 1999. It is being financed, in part, by two operating leases totaling approximately \$79.7 million. Payments under the facility lease began in December 1997, and payments under the equipment lease will begin in 1999. The equipment lease payments are graduated and will increase over time. Capital expenditures for Microelectronics were \$7.4 million in 1998, with the main projects being the expansion of precious and nonprecious metal capabilities, and the new copper tungsten facility.

The Company is also undertaking several major capital investments to replace a large portion of its legacy computer systems while other systems are undergoing major upgrades. One of the benefits from these system replacements and upgrades is mitigating the need to make numerous legacy systems Year 2000 compliant. The Company currently is actively addressing the Year 2000 issues for both information technology equipment and non-information technology equipment (i.e., manufacturing and other support machinery). The related expense for this activity was approximately \$1.0 million in 1998 with a smaller but undetermined amount expected to be expended in 1999. Outside consultants have been contracted to assist in assessing the Company's exposure and costs. The majority of the sales, financial, and payroll information technology systems either already are or anticipated to be Year 2000 compliant by early 1999. The Company is still in the assessment phase relative to remediation of any Year 2000 issues with its non-information technology equipment, although, some equipment is known to be or has been made Year 2000 compliant. If required modifications and conversions are not made on a timely basis, the Year 2000 issue could have a material adverse effect on the Company's operations. The Company can provide no assurance that Year 2000 compliance plans will be successfully completed by suppliers and customers on a timely basis, nor has the Company been able to assess the potential impact of noncompliance by any customer or supplier. While the Company is attempting to resolve its Year 2000 issues to the best of its understanding, given the complexity of the issue and the potential costs, the Company cannot provide absolute assurance that this issue will not have any impact on the Company's future cash flows or results of operations. The Company anticipates developing contingency plans as warranted.

The assets of Pure Tech Inc. were acquired by Williams Advanced Materials Inc., a wholly-owned subsidiary of the Company, for \$12.4 million in cash late in the second quarter 1998. The acquisition was accounted for as a purchase.

Short-term debt was \$45.6 million at December 31, 1998, an increase of \$16.7 million from the prior year-end. Included in this amount is \$25.5 million of foreign currency loans and \$6.8 million denominated in precious metals. Long-term debt on the balance sheet was \$32.1 million at year-end 1998 compared to \$17.9 million at year-end 1997. Unused lines of credit totaled \$113.0 million at December 31, 1998. In January 1999, the Company amended certain provisions of its revolving credit agreement and master lease agreement including a covenant limiting the amount of outstanding debt to a multiple of earnings before interest, taxes, depreciation, and amortization (funded debt/EBITDA ratio).

The Company purchased 250,000 shares of its Common Stock at a cost of \$5.3 million and paid dividends totaling \$7.8 million in 1998.

Funds being generated from operations, plus 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.

Cash flow from operations was \$40.4 million in 1997. Cash balances declined to \$7.2 million from \$31.7 million during 1997 while total balance sheet debt increased by \$2.2 million. Capital expenditures were \$53.2 million in 1997. The Company purchased 205,600 shares of stock at a cost of \$4.9 million and paid \$7.3 million of dividends in 1997.

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 1998 production levels, proven reserves would last sixty years or more.

	1998 ----	1997 ----	1996 ----	1995 ----	1994 ----
Proven bertrandite ore reserves at year-end (thousands of dry tons)	7,747	6,924	6,763	6,927	6,747
Grade beryllium	0.259%	0.249%	0.249%	0.249%	0.251%
Probable bertrandite ore reserves at year-end (thousands of dry tons)	3,535	6,750	7,432	7,346	7,559
Grade beryllium	0.210%	0.277%	0.281%	0.281%	0.279%
Bertrandite ore processed (thousands of dry tons, diluted)	113	110	97	96	79
Grade beryllium, diluted	0.234%	0.229%	0.236%	0.232%	0.240%

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 employs 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 \$7.9 million at December 31, 1998 (\$5.1 million at December 31, 1997). This reserve covers existing and currently foreseen projects.

MANAGEMENT 'S DISCUSSION AND ANALYSIS (CONTINUED)

MARKET RISK DISCLOSURES

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 Microelectronics and Metal Systems products. 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 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. 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, 1998, the additional pre-tax cost to the Company on an annual basis would be approximately \$0.1 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, 1998 that will mature during 1999, management estimates a 10% decrease in the price of copper from the December 31, 1998 level will increase the loss on these contracts and decrease pre-tax income by approximately \$1.9 million. This calculation excludes the additional profit that the Company anticipates it will make by selling copper at a fixed price that cost 10% less than it does on December 31, 1998.

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, 1998 rates, and assuming no changes in debt or cash from the December 31, 1998 levels, the additional annual net expense would be approximately \$0.9 million on a pre-tax basis.

The Company sells products in foreign currencies, mainly the deutschmark, yen, and 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 U.S. dollar strengthen, the decline in margins should be offset by a gain on the contract. A decrease in the value of the U.S. dollar would result in larger margins but potentially a loss on the contract, depending upon the method used to hedge. If the U.S. dollar weakened 10% against all currencies from the December 31, 1998 exchange rates, the additional loss on the outstanding contracts as of December 31, 1998 would reduce pre-tax profits by approximately \$2.6 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.

BRUSH WELLMAN INC. DIRECTORS AND OFFICERS

BOARD OF DIRECTORS

ALBERT C. BERSTICKER(2, 3, 4)

Chairman
Ferro Corporation

CHARLES F. BRUSH, III(1, 4)

Personal Investments

DAVID L. BURNER(1, 4)

Chairman, President, and
Chief Executive Officer
BF Goodrich Co.

GORDON D. HARNETT(2)

Chairman of the Board,
President, and
Chief Executive Officer
Brush Wellman Inc.

DAVID H. HOAG(3, 4)

Retired Chairman
The LTV Corp.

JOSEPH P. KEITHLEY(3, 4)

Chairman, President, and
Chief Executive Officer
Keithley Instruments, Inc.

WILLIAM P. MADAR(1, 2, 3, 4)

Chairman
Nordson Corporation

ROBERT M. MCINNES(2, 3, 4)

Retired President and
Chief Executive Officer,
Pickands Mather & Co.

WILLIAM R. ROBERTSON(1, 4)

Managing Partner
Kirtland Capital Partners

JOHN SHERWIN, Jr.(1, 2, 4)

President,
Mid-Continent Ventures, Inc.

- 1 Audit Committee
- 2 Executive Committee
- 3 Governance Committee
- 4 Organization and Compensation Committee

OFFICERS

GORDON D. HARNETT(1, 2)

Chairman of the Board,
President, and
Chief Executive Officer

BRIAN J. DERRY(1, 2)

Vice President, Operations

STEPHEN FREEMAN(1, 2)
Vice President, Alloy Products

JOHN D. GRAMPA(1, 2)
Vice President, Finance

WILLIAM R. SEELBACH(1, 2)
President, Alloy Products

DANIEL A. SKOCH(1, 2)
Vice President
Administration and Human Resources

MICHAEL D. ANDERSON(2)
Vice President, Beryllium Products

JORDAN P. FRAZIER(2)
General Manager, Ceramic Products

MICHAEL C. HASYCHAK(1, 2)
Treasurer and Secretary

ALFONSO T. LUBRANO(2)
President, Technical Materials, Inc.

JOHN J. PASCHALL(2)
President, Williams Advanced Materials Inc.

ANDREW J. SANDOR(1, 2)
Vice President, Alloy Technology

WILLIAM M. CHRISTOFF(1)
Assistant Treasurer - Taxes, Assistant Secretary

DAVID C. DEUBNER(1)
Vice President, Occupational Medicine

JAMES P. MARROTTE(1)
Controller

JOHN J. PALLAM(1)
Vice President, General Counsel

1 Corporate Officers
2 Executive Officers

OFFICES AND FACILITIES

MANUFACTURING FACILITIES

Buffalo, New York
Carmel, New York
Delta, Utah
Elmore, Ohio
Fremont, California
Lincoln, Rhode Island
Lorain, Ohio
Newburyport, Massachusetts
Oceanside, California
Reading, Pennsylvania
Tucson, Arizona
Wheatfield, New York

RESEARCH FACILITIES AND

ADMINISTRATIVE OFFICES

Cleveland, Ohio

SERVICE AND DISTRIBUTION CENTERS

Elmhurst, Illinois
Fairfield, New Jersey
Singapore
Stuttgart, Germany
Theale, England
Tokyo/Fukaya, Japan
Torrance, California
Warren, Michigan

SUBSIDIARIES

Brush Wellman GmbH,
Stuttgart, Germany

Brush Wellman Limited,
Theale, England

Brush Wellman (Japan), Ltd,
Tokyo, Japan

Brush Wellman (Singapore) Pte Ltd,
Singapore

Circuits Processing Technology Inc.
Oceanside, California

Technical Materials, Inc.
Lincoln, Rhode Island

Williams Advanced Materials Inc.
Buffalo, New York,
Singapore

CORPORATE DATA

ENVIRONMENTAL POLICY

Brush Wellman Inc. considers Environmental, Health, and Safety as integral parts of our business strategy and necessary for our success. It is the policy of Brush Wellman to design, manufacture, and distribute all products and to manage and dispose of all materials in a safe, environmentally sound manner. We are committed to utilizing our resources and technical capabilities to their fullest extent to protect the health and safety of our employees, our customers, the general public, and the environment.

The health and safety of our employees is of paramount importance. No operation or task will be conducted unless it can be performed in a safe manner.

Through education and training, we shall promote a culture which establishes individual ownership of Environmental, Health, and Safety responsibility throughout the organization and empowers everyone to continuously improve all working conditions. Each employee will maintain an awareness of safe work practices and endeavor to prevent conditions which may result in an unsafe situation or harm the environment. It is the responsibility of each employee to promptly notify management of any adverse situation.

We shall make every effort to minimize, to the lowest feasible level, occupational and environmental exposure to all potentially hazardous materials.

We will go beyond regulatory compliance, striving for continuous improvement in all our Environmental, Health, and Safety control efforts.

The Company will provide medical surveillance and preventive health maintenance programs for the early detection of occupational diseases.

The Management Team at each location will diligently respond to employee concerns and is directly responsible for developing and implementing programs for ensuring that their operations comply with this policy. The Environmental Health and Safety staff provides support by:

- maintaining liaison with appropriate government agencies and interpreting and communicating regulations;
- providing technical guidance and assisting in the development of policies and performance standards; and
- conducting independent review and assessment of all operations to audit compliance with environmental, safety, and health policies.

All employees are expected to follow the intent and spirit of this policy and incorporate sound health, safety, and environmental practices in the conduct of their jobs.

This policy applies to all Brush Wellman business units worldwide.

ANNUAL MEETING

The Annual Meeting of Shareholders will be held on May 4, 1999 at 11:00 a.m. at The Forum, One Cleveland Center, 1375 East Ninth Street, Cleveland, Ohio.

INVESTOR INFORMATION

Brush Wellman maintains an active program of communication with shareholders, securities analysts and other members of the investment community. Management makes regular presentations in major financial centers around the world. To obtain:

- additional copies of the Annual Report
- SEC Form 10K/10Q

- product literature please contact:

Michael C. Hasychak
Treasurer and Secretary

WEB SITE

Brush Wellman maintains a site on the World Wide Web. The web site, which can be accessed via the internet at <http://www.brushwellman.com> is designed to provide useful, timely information about Brush Wellman to customers, potential customers, investors, employees, and the general public.

DIVIDEND REINVESTMENT PLAN

Brush Wellman has a plan for its shareholders which provides automatic reinvestment of dividends toward the purchase of additional shares of the Company's common stock. For a brochure describing the plan please contact our transfer agent, National City Bank, at 1-800-622-6757.

AUDITORS

Ernst & Young LLP
1300 Huntington Building
Cleveland, Ohio 44115

TRANSFER AGENT AND REGISTRAR

National City Bank
Corporate Trust Operations

P.O. Box 92301
Cleveland, OH 44193-0900
For shareholder inquiries, call: 1-800-622-6757

STOCK LISTING

New York Stock Exchange/Symbol: BW

CORPORATE HEADQUARTERS

Brush Wellman Inc.
17876 St. Clair Ave.
Cleveland, Ohio 44110
(216) 486-4200 o Facsimile: (216) 383-4091

**BRUSHWELLMAN
ENGINEERED MATERIALS**

17876 St. Clair Avenue
Cleveland, Ohio 44110

216/486-4200

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 this Annual Report (Form 10-K) of Brush Wellman Inc. of our report dated January 26, 1999, included in the 1998 Annual Report to Shareholders of Brush Wellman Inc.

Our audits also included the financial statement schedule of Brush Wellman Inc. listed in Item 14(a) 2. This schedule is the responsibility of the Company's management. Our responsibility is to express an opinion based on our audits. In our opinion, the financial statement schedule referred to above, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

We also consent to the incorporation by reference in the following Registration Statements and Post-Effective Amendments of our report dated January 26, 1999, with respect to the consolidated financial statements incorporated herein by reference and our report included in the preceding paragraph with respect to the financial statement schedule included in the Annual Report (Form 10-K) of Brush Wellman Inc. for the year ended December 31, 1998:

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 33-60709 on Form S-8 dated June 29, 1995; Registration Statement Number 33-48866 on Form S-8 dated June 27, 1992; Registration Statement Number 33-45323 on Form S-8 dated February 3, 1992;
Post-Effective Amendment Number 1 to Registration Statement Number 33-28950 on Form S-8 dated February 3, 1992; Registration Statement Number 33-35979 on Form S-8 dated July 20, 1990; 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.

ERNST & YOUNG LLP

Cleveland, Ohio
March 29, 1999

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, Leigh B. Trevor and Louis Rorimer, 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, 1998, 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 2nd day of March, 1999.

/s/ Gordon D. Harnett

*Gordon D. Harnett, Chairman, President,
Chief Executive Officer and Director
(Principal Executive Officer)*

/s/ Joseph P. Keithley

Joseph P. Keithley, Director

/s/ Albert C. Bersticker

Albert C. Bersticker, Director

/s/ William P. Madar

William P. Madar, Director

/s/ Charles F. Brush, III

Charles F. Brush, III, Director

/s/ Robert M. McInnes

Robert M. McInnes, Director

/s/ David L. Burner

David L. Burner, Director

/s/ William R. Robertson

William R. Robertson, Director

/s/ David H. Hoag

David H. Hoag, Director

/s/ John Sherwin, Jr.

John Sherwin, Jr., Director

/s/ John D. Grampa

*John D. Grampa, Vice President Finance
(Principal Accounting Officer)*

ARTICLE 5

MULTIPLIER: 1,000

PERIOD TYPE	12 MOS
FISCAL YEAR END	DEC 31 1998
PERIOD START	JAN 01 1998
PERIOD END	DEC 31 1998
CASH	1,938
SECURITIES	0
RECEIVABLES	62,181
ALLOWANCES	2,127
INVENTORY	103,108
CURRENT ASSETS	194,524
PP&E	421,467
DEPRECIATION	256,998
TOTAL ASSETS	403,690
CURRENT LIABILITIES	93,532
BONDS	17,905
PREFERRED MANDATORY	0
PREFERRED	0
COMMON	22,481
OTHER SE	199,330
TOTAL LIABILITY AND EQUITY	403,690
SALES	409,892
TOTAL REVENUES	409,892
CGS	325,173
TOTAL COSTS	398,391
OTHER EXPENSES	21,609
LOSS PROVISION	205
INTEREST EXPENSE	1,249
INCOME PRETAX	(11,562)
INCOME TAX	(4,430)
INCOME CONTINUING	(7,132)
DISCONTINUED	0
EXTRAORDINARY	0
CHANGES	0
NET INCOME	(7,132)
EPS PRIMARY	(0.44)
EPS DILUTED	(0.44)

ARTICLE 5

RESTATED:

MULTIPLIER: 1,000

PERIOD TYPE	12 MOS
FISCAL YEAR END	DEC 31 1997
PERIOD START	JAN 01 1997
PERIOD END	DEC 31 1997
CASH	7,170
SECURITIES	0
RECEIVABLES	62,812
ALLOWANCES	1,059
INVENTORY	90,714
CURRENT ASSETS	178,911
PP&E	463,689
DEPRECIATION	290,067
TOTAL ASSETS	383,852
CURRENT LIABILITIES	78,312
BONDS	17,905
PREFERRED MANDATORY	0
PREFERRED	0
COMMON	22,227
OTHER SE	214,586
TOTAL LIABILITY AND EQUITY	383,852
SALES	433,801
TOTAL REVENUES	433,801
CGS	324,463
TOTAL COSTS	397,452
OTHER EXPENSES	172
LOSS PROVISION	153
INTEREST EXPENSE	553
INCOME PRETAX	35,471
INCOME TAX	9,874
INCOME CONTINUING	25,597
DISCONTINUED	0
EXTRAORDINARY	0
CHANGES	0
NET INCOME	25,597
EPS PRIMARY	1.58
EPS DILUTED	1.56

ARTICLE 5

RESTATED:

MULTIPLIER: 1,000

PERIOD TYPE	12 MOS
FISCAL YEAR END	DEC 31 1996
PERIOD START	JAN 01 1996
PERIOD END	DEC 31 1996
CASH	31,749
SECURITIES	0
RECEIVABLES	52,211
ALLOWANCES	954
INVENTORY	96,324
CURRENT ASSETS	197,233
PP&E	404,127
DEPRECIATION	273,907
TOTAL ASSETS	355,779
CURRENT LIABILITIES	69,061
BONDS	18,860
PREFERRED MANDATORY	0
PREFERRED	0
COMMON	21,909
OTHER SE	197,348
TOTAL LIABILITY AND EQUITY	355,779
SALES	376,279
TOTAL REVENUES	376,279
CGS	271,149
TOTAL COSTS	341,013
OTHER EXPENSES	896
LOSS PROVISION	65
INTEREST EXPENSE	1,128
INCOME PRETAX	33,177
INCOME TAX	8,686
INCOME CONTINUING	24,491
DISCONTINUED	0
EXTRAORDINARY	0
CHANGES	0
NET INCOME	24,491
EPS PRIMARY	1.55
EPS DILUTED	1.53

End of FilingPowered By **EDGAR**
Online

© 2005 | EDGAR Online, Inc.