

Securities and Exchange Commission  
Washington, D.C. 20549

FORM 10-K  
ANNUAL REPORT

Pursuant to Section 13 or 15 (d) of the  
Securities Exchange Act of 1934  
For the fiscal year ended  
December 31, 2000

Commission file number 0-2504

MINE SAFETY APPLIANCES COMPANY  
A Pennsylvania Corporation  
IRS Employer Identification No. 25-0668780  
121 Gamma Drive  
RIDC Industrial Park  
O'Hara Township  
Pittsburgh, Pennsylvania 15238  
Telephone 412/967-3000

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
Common Stock, no par value -----	American Stock Exchange -----

Securities registered pursuant to Section 12(g) of the Act:

Preferred Stock Purchase Rights  
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(COVER PAGE)

SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

FORM 10-K

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

For the fiscal year ended December 31, 2000

Commission File No. 0-2504

MINE SAFETY APPLIANCES COMPANY

-----  
(Exact name of registrant as specified in its charter)

Pennsylvania

25-0668780

-----  
(State or other jurisdiction of  
incorporation or organization)

-----  
(IRS Employer Identification No.)

121 Gamma Drive  
RIDC Industrial Park  
O'Hara Township  
Pittsburgh, Pennsylvania

15238

-----  
(Address of principal executive offices)

-----  
(Zip Code)

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Registrant's telephone number, including area code: 412/967-3000  
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Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
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Common Stock, no par value	American Stock Exchange
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Securities registered pursuant to Section 12(g) of the Act:

Preferred Stock Purchase Rights

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(Title of Class)

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 and (2) has been subject to such filing requirements for the past 90 days.

Yes  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 the definitive proxy statement incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

As of February 23, 2001, there were outstanding 13,461,283 shares of common stock, no par value, including 1,621,785 shares held by the Mine Safety Appliances Company Stock Compensation Trust. Total market value of outstanding voting stock as of February 23, 2001 was \$327,109,000. The aggregate market value of voting stock held by non-affiliates as of February 23, 2001 was \$190,534,000.

(COVER PAGE)

DOCUMENTS INCORPORATED BY REFERENCE

The following documents have been incorporated by reference:

DOCUMENT -----	FORM 10-K PART NUMBER -----
(1) Annual Report to Shareholders for the year ended December 31, 2000	I, II, IV
(2) Proxy Statement filed pursuant to Regulation 14A in connection with the registrant's Annual Meeting of Shareholders to be held on May 10, 2001	III

PART I

Item 1. Business

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Operating Segments:

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The company is organized into three geographic operating segments - North America, Europe and Other International. Further information with respect to the registrant's operating segments is reported at Note 7 of Notes to Consolidated Financial Statements contained in the registrant's Annual Report to Shareholders for the year ended December 31, 2000, incorporated herein by reference.

Products and Markets:

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The primary business of the registrant and its affiliated companies is the manufacture and sale of products designed to protect the safety and health of people throughout the world.

Principal products include respiratory protective equipment that is air-purifying, air-supplied and self-contained in design; instruments that monitor and analyze workplace environments and control industrial processes; thermal imaging cameras that enable firefighters and rescue workers to see through smoke and darkness; and personal protective products including head, eye and face, hearing protectors, and fall protection equipment.

Many of these products have wide application for workers in industries that include manufacturing, municipal and volunteer fire departments, public utilities, mining, chemicals, petroleum, construction, transportation, the military, and hazardous materials clean-up. Consumer products target the growing do-it-yourself market and are available through select home center retail outlets under the MSA Safety Works(TM) brand.

Other products manufactured and sold, which do not fall within the category of safety and health equipment, include boron-based and other specialty chemicals. Additional information concerning the registrant's products is reported at Note 7 of Notes to Consolidated Financial Statements contained in the registrant's Annual Report to Shareholders for the year ended December 31, 2000, incorporated herein by reference.

The registrant and its affiliated companies compete with many large and small enterprises. For most of the registrant's products and in most markets, principal methods of competition are product features, quality and price. In the opinion of management, the registrant is a leader in the manufacture of safety and health

equipment.

Orders, except under contracts with U.S. government agencies, are generally filled promptly after receipt and the production period for special items is usually less than one year. The year-end backlog of orders under contracts with U.S. government agencies was \$14,582,000 in 2000, \$10,225,000 in 1999 and \$18,265,000 in 1998.

Sales of products to U.S. government agencies decreased in 2000; however, incoming orders were higher than shipments in both 2000 and 1999. The company's business is not dependent on a single customer or group of related customers, the loss of which would have a material adverse effect on the registrant's results.

Research:

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The registrant and its affiliated companies engage in applied research with a view to developing new products and new applications for existing products. Most of the products are designed and manufactured to meet currently applicable performance and test standards published by groups such as ANSI (American National Standards Institute), MSHA (Mine Safety & Health Administration), NIOSH (National Institute for Occupational Safety and Health), UL (Underwriters' Laboratories), SEI (Safety Equipment Institute), FM (Factory Mutual), CEN (European Committee for Standardization) and CSA (Canadian Standards Association). The registrant also from time to time engages in research projects for others such as the Bureau of Mines and the Department of Defense or its prime contractors. Registrant-sponsored research and development costs were \$17,241,000 in 2000, \$17,097,000 in 1999, and \$17,415,000 in 1998.

In the aggregate, patents have represented an important element in building the business of the registrant and its affiliates, but in the opinion of management no one patent or group of patents is of material significance to the business as presently conducted.

General:

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The company was founded in 1914 and is headquartered in Pittsburgh, Pennsylvania. As of December 31, 2000, the registrant and its affiliated companies had approximately 4,000 employees, of which 2,100 were employed by international affiliates. None of the U.S. employees are subject to the provisions of a collective bargaining agreement.

In the United States and in those countries in which the registrant has affiliates, its products are sold by its own salespersons, independent distributors and/or manufacturers' representatives. In international countries where the registrant has no affiliate, products are sold primarily through independent distributors located in those countries.

The registrant is cognizant of environmental responsibilities and has taken affirmative action regarding this responsibility. There are no current or expected legal proceedings or expenditures with respect to environmental matters which would materially affect the operations of the registrant and its affiliates.

Generally speaking, the operations of the registrant and its affiliates are such that it is possible to maintain sufficient inventories of raw materials and component parts on the manufacturing premises.

Equipment and machinery for processing chemicals and rubber, plastic injection molding equipment, molds, metal cutting, stamping and working equipment, assembly fixtures and similar items are regularly acquired, repaired or replaced in the ordinary course of business at prevailing market prices as necessary.

Further information about the registrant's business is included in Management's Discussion and Analysis at pages 14 to 17 of the 2000 Annual Report to Shareholders, incorporated herein by reference.

Executive Officers:

Name	Age	All Positions and Offices Presently Held
J. T. Ryan III	57	Chairman and Chief Executive Officer
T. B. Hotopp	59	President
J. H. Baillie	54	Vice President
J. A. Bigler	51	Vice President
K. M. Bove	42	Vice President
D. H. Cuzzo	67	Vice President and Secretary
B. V. DeMaria	53	Vice President
W. M. Lambert	42	Vice President
G. W. Steggle	66	Senior Vice President
D. L. Zeitler	52	Vice President and Treasurer (Chief Financial Officer)

All the executive officers have been employed by the registrant since prior to January 1, 1996 and have held their present positions since prior to that date except as follows:

- (a) Mr. Hotopp was elected President on December 18, 1996. Prior to that time, he was Senior Vice President and General Manager, Safety Products.
- (b) Mr. Baillie was employed by the registrant on January 21, 1999 and was elected Vice President. From prior to January 1, 1996 until October 8, 1996, he was Vice President, Europe of Teledyne Industries International. Until November 1, 1997, he was Executive Vice President of Sylvania Lighting International.
- (c) Mr. Bigler was elected Vice President on January 9, 1998. Prior to that time, he was Director of Sales.
- (d) Mr. Bove was elected Vice President on August 22, 2000. From prior to January 1, 1996 until April 1997, he was Product Group Manager of Body Protection and Mining. From April 1997 until November 1998, he was Product Group Manager of Air Purifying Respirators. From November 1998 until November 1999, he was Division Marketing Manager. From November 1999, he was General Manager of the Instrument Division.

- (e) Mr. DeMaria was elected Vice President on January 9, 1998. Prior to that time, he was Director, Human Resources.
- (f) Mr. Lambert was elected Vice President on January 9, 1998. From prior to January 1, 1996 until August 1996, he was Marketing Manager. From August 1996 until December 1996, he was Director of Marketing. From December 1996 he was General Manager of the Safety Products Division.
- (g) Mr. Steggles was elected Senior Vice President on January 1, 1999. Prior to that time he was Vice President.
- (h) Mr. Zeitler was elected Chief Financial Officer on November 1, 2000. From prior to January 1, 1996 until January 1998, he was Treasurer. From January 1998, he was Vice President.

The executive officers of the registrant serve at the pleasure of the Board of Directors and are not elected to any specified term of office.

The primary responsibilities of these officers follow:

Individual - - - - -	Responsibilities - - - - -
Mr. Hotopp	North America operations
Mr. Baillie	European operations
Mr. Bigler	North America sales and distribution
Mr. Bove	Research, product development, manufacturing and marketing of instrument products in North America
Mr. Cuzzo	General Counsel and corporate taxes
Mr. DeMaria	Human resources and corporate communications
Mr. Lambert	Research, product development, manufacturing and marketing of safety products in North America
Mr. Steggles	International operations outside North America and Europe

Item 2. Properties

World Headquarters:

The registrant's executive offices are located at 121 Gamma Drive, RIDC Industrial Park, O'Hara Township, Pittsburgh, Pennsylvania 15238. This facility contains approximately 138,000 sq. ft.

Production and Research Facilities:

The registrant's principal North American manufacturing and research facilities are located in the Greater Pittsburgh area in buildings containing approximately 957,000 square feet. Other North American manufacturing and research facilities of the registrant are located in Jacksonville, North Carolina (107,000 sq. ft.), Sparks, Maryland (54,000 sq. ft.), Lawrence, Massachusetts (62,000 sq. ft.), Englewood, Colorado (41,000 sq. ft.), Clifton, New Jersey (41,000 sq. ft.), Etobicoke, Canada (6,500 sq. ft.), and Naucalpan, Mexico (5,800 sq. ft.).

Manufacturing facilities of the European operating segment of the registrant are located in France, Germany, Italy and Scotland. The most significant is located in Germany (approximately 402,000 sq. ft., excluding 156,000 sq. ft. leased to others). Research activities are also conducted in Germany. Manufacturing facilities for the Other International operating segment are located in Australia, Brazil, Chile, China, Japan, Peru and South Africa.

Virtually all of these buildings are owned by the registrant and its affiliates and are constructed of granite, brick, concrete block, steel or other fire-resistant materials. The German facility is owned subject to encumbrances collateralizing indebtedness in the aggregate amount of \$723,000 as of December 31, 2000.

Sales Offices and Warehouses:

Sales offices and distribution warehouses are owned or leased in the United States and 27 other countries in which the registrant's affiliates are located.

Item 3. Legal Proceedings

Not Applicable.

Item 4. Submission of Matters to a Vote of Security Holders

No matters were submitted to a vote of security holders during fourth quarter 2000.

PART II

- Item 5. Market for the Registrant's Common Equity and Related Stockholder Matters
- Item 6. Selected Financial Data
- Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations
- Item 8. Financial Statements and Supplementary Data

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Incorporated by reference herein pursuant to Rule 12b - 23 are

- Item 5 - "Common Stock" appearing at page 17
- Item 6 - "Summary of Selected Financial Data" appearing at page 31
- Item 7 - "Management's Discussion and Analysis" appearing at pages 14 to 17
- Item 8 - "Financial Statements and Notes to Consolidated Financial Statements" appearing at pages 18 to 30

of the Annual Report to Shareholders for the year ended December 31, 2000. Said pages of the Annual Report are submitted with this report and pursuant to Item 601(b)(13) of Regulation S-K shall be deemed filed with the Commission only to the extent that material contained therein is expressly incorporated by reference in Items 1, 5, 6, 7, 7a, 8 and 14 (a) hereof.

On June 27, 2000, the Company sold 1,125,000 shares of its Common Stock to the trust for the Company's Non-Contributory Pension Plan for Employees at a price of \$24 per share, or an aggregate price of \$27,000,000. The sale was exempt from registration under the Securities Act of 1933 as a private placement under Section 4(2) of the Act. The trustee of the Plan trust is a bank, and the members of the Investment Committee for the Plan trust are all executive officers of the Company.

- Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

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Not applicable.

PART III

Item 10. Directors and Executive Officers of the Registrant

Item 11. Executive Compensation

Item 12. Security Ownership of Certain Beneficial Owners and Management

Item 13. Certain Relationships and Related Transactions

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Incorporated by reference herein pursuant to Rule 12b - 23 are (1) "Election of Directors" appearing at pages 1 to 3, (2) "Other Information Concerning Directors and Officers" appearing at pages 4 to 11 (except as excluded below), and (3) "Stock Ownership" appearing at pages 13 to 15 of the Proxy Statement filed pursuant to Regulation 14A in connection with the registrant's Annual Meeting of Shareholders to be held on May 10, 2001. The information appearing in such Proxy Statement under the captions "Compensation Committee Report on Executive Compensation," "Audit Committee Report" and the other information appearing in such Proxy Statement and not specifically incorporated by reference herein is not incorporated herein.

PART IV

Item 14. Exhibits, Financial Statement Schedules, and Reports on Form 8-K

(a) 1 and 2. Financial Statements

The following information appearing on pages 18 to 30 inclusive in the Annual Report to Shareholders of the registrant for the year ended December 31, 2000, is incorporated herein by reference pursuant to Rule 12b-23.

Report of Independent Accountants

Consolidated Statement of Income - three years ended December 31, 2000

Consolidated Balance Sheet - December 31, 2000 and 1999

Consolidated Statement of Changes in Retained Earnings and Accumulated Other Comprehensive Income - three years ended December 31, 2000

Consolidated Statement of Cash Flows - three years ended December 31, 2000

Notes to Consolidated Financial Statements

Said pages of the Annual Report are submitted with this report and, pursuant to Item 601(b)(13) of Regulation S-K shall be deemed to be filed with the Commission only to the extent that material contained therein is expressly incorporated by reference in Items 1, 5, 6, 7, 8 and 14 (a)(1) and (2) hereof.

The following additional financial information for the three years ended December 31, 2000 is filed with the report and should be read in conjunction with the above financial statements:

Report of Independent Accountants on Financial Statement Schedule

Schedule II - Valuation and Qualifying Accounts

All other schedules are omitted because they are not applicable, not material or the required information is shown in the financial statements and notes to the financial statements listed above.

(a) 3. Exhibits

- (3)(i) Restated Articles of Incorporation as amended to April 27, 1989, filed as Exhibit 3(i) to Form 10-Q on August 12, 1999, are incorporated herein by reference.
- (3)(ii) By-laws of the registrant, as amended on March 13, 2001, are filed herewith.
- (4) Rights Agreement dated as of February 10, 1997 between the registrant and Norwest Bank Minnesota, N.A., as Rights Agent, filed as Exhibit 1 to the registrant's Form 8-A on February 25, 1997, is incorporated herein by reference.
- (10)(a) \* 1987 Management Share Incentive Plan, filed as Exhibit 10(a) to Form 10-K on March 26, 1999, is incorporated herein by reference.
- (10)(b) \* 1998 Management Share Incentive Plan, incorporated herein by reference to Annex A to the registrant's Definitive Proxy Statement filed March 24, 1998 for its 1998 Annual Meeting.
- (10)(c) \* Retirement Plan for Directors, as amended effective April 1, 2001, is filed herewith.
- (10)(d) \* Supplemental Pension Plan as of May 5, 1998, filed as Exhibit 10(g) to Form 10-Q on August 14, 1998, is incorporated herein by reference.
- (10)(e) \* 1990 Non-Employee Directors' Stock Option Plan as amended effective April 1, 2001, is filed herewith.
- (10)(f) \* Form of First Amendment dated June 2, 1998 to the Restricted Stock Agreements dated as of March 15, 1996, under the 1987 Management Share Incentive Plan, filed as Exhibit 10(i) to Form 10-Q on August 14, 1998, is incorporated herein by reference.
- (10)(g) \* Executive Insurance Program as Amended and Restated as of January 1, 2001 is filed herewith.

- (10)(h) \* Annual Incentive Bonus Plan as of May 5, 1998, filed as Exhibit 10(k) to Form 10-Q on August 14, 1998, is incorporated herein by reference.
- (10)(i) \* Form of Severance Agreement as of May 20, 1998 between the registrant and John T. Ryan III, filed as Exhibit 10(m) to Form 10-Q on August 14, 1998, is incorporated herein by reference.
- (10)(j) \* Form of Severance Agreement as of May 20, 1998 between the registrant and the other executive officers filed as Exhibit 10(n) to Form 10-Q on August 14, 1998, is incorporated herein by reference.
- (10)(k) \* First Amendment to the 1998 Management Share Incentive Plan as of March 10, 1999, filed as Exhibit 10(l) to Form 10-K on March 26, 1999, is incorporated herein by reference.
- (10)(l) Trust Agreement as of June 1, 1996 between the registrant and PNC Bank, N.A. re the Mine Safety Appliances Company Stock Compensation Trust, filed as Exhibit 10(f) to Form 10-K on March 26, 1997, is incorporated herein by reference.
- (10)(m) \* MSA Supplemental Savings Plan, filed as Exhibit 10(n) to Form 10-Q on November 12, 1999, is incorporated herein by reference.
- (10)(n) \* Employment Agreement dated as of January 18, 1999 between the registrant and James H. Baillie re the registrant's operations outside Germany, filed as Exhibit (10)(n) to Form 10-K on March 24, 2000, is incorporated herein by reference.
- (10)(o) \* Employment Agreement dated as of January 18, 1999 between the registrant and James H. Baillie re the registrant's operations in Germany, filed as Exhibit (10)(o) to Form 10-K on March 24, 2000, is incorporated herein by reference.

\* The exhibits marked by an asterisk are management contracts or compensatory plans or arrangements.

(13) Annual Report to Shareholders for year ended December 31, 2000

(21) Affiliates of the registrant

(23) Consent of PricewaterhouseCoopers LLP, independent accountants

The registrant agrees to furnish to the Commission upon request copies of all instruments with respect to long-term debt referred to in Note 6 of the Notes to Consolidated Financial Statements filed as part of Exhibit 13 to this annual report which have not been previously filed or are not filed herewith.

(b) Reports on Form 8-K

No reports on Form 8-K were filed during the last quarter of the year ended December 31, 2000.

Report of Independent Accountants on  
Financial Statement Schedule

To the Board of Directors of  
Mine Safety Appliances Company

Our audits of the consolidated financial statements referred to in our report dated February 23, 2001 appearing in the 2000 Annual Report to Shareholders of Mine Safety Appliances Company (which report and consolidated financial statements are incorporated by reference in this Annual Report on Form 10-K) also included an audit of the Financial Statement Schedule listed in Item 14(a)(2) of this Form 10-K. In our opinion, this Financial Statement Schedule presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements.

PricewaterhouseCoopers LLP  
Pittsburgh, Pennsylvania  
February 23, 2001

SCHEDULE II

MINE SAFETY APPLIANCES COMPANY AND AFFILIATES  
 VALUATION AND QUALIFYING ACCOUNTS  
 THREE YEARS ENDED DECEMBER 31, 2000  
 (IN THOUSANDS)

	2000	1999	1998
	-----	-----	-----
Allowance for doubtful accounts:			
Balance at beginning of year	\$2,322	\$3,004	\$3,704
Additions -			
Charged to costs and expenses	750	878	588
Balance from acquisitions			45
Deductions -			
Deductions from reserves (1)	709	928	1,135
Reversal of allowance (2)		632	
Reduction from divestitures			198
	-----	-----	-----
Balance at end of year	\$2,363	\$2,322	\$3,004
	=====	=====	=====

- (1) Bad debts written off, net of recoveries.  
 (2) Reversal of allowance due to sale of accounts receivable.

SIGNATURES

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Pursuant to the requirements of Section 13 or 15(d) 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.

MINE SAFETY APPLIANCES COMPANY

March 27, 2001

By /s/ John T. Ryan III

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(Date)

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John T. Ryan III  
Chairman of the Board and  
Chief Executive Officer

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

Signature	Title	Date
-----	-----	-----
/s/ John T. Ryan III ----- John T. Ryan III	Director; Chairman of the Board and Chief Executive Officer	March 27, 2001
/s/ Dennis L. Zeitler ----- Dennis L. Zeitler	Vice President - Finance; Principal Financial and Accounting Officer	March 27, 2001
/s/ Joseph L. Calihan ----- Joseph L. Calihan	Director	March 27, 2001
/s/ Calvin A. Campbell, Jr. ----- Calvin A. Campbell, Jr.	Director	March 27, 2001
/s/ Thomas B. Hotopp ----- Thomas B. Hotopp	Director	March 27, 2001
/s/ L. Edward Shaw, Jr. ----- L. Edward Shaw, Jr.	Director	March 27, 2001
/s/ Thomas H. Witmer ----- Thomas H. Witmer	Director	March 27, 2001

MINE SAFETY APPLIANCES COMPANY

(A Pennsylvania Corporation)

By-Laws

As Amended to March 13, 2001\*

\* \* \* \* \*

ARTICLE I  
Meetings of Shareholders

Section 1.01. Annual Meetings. An annual meeting of the shareholders shall be held at each year within five months after the end of the fiscal year of the Company on such day and at such time and place as may be designated by the Board of Directors, or if not do designated on the third Wednesday of April in each year if not a legal holiday, and if a legal holiday then on the next business day following, at 10:00 o'clock A.M., local time, at the principal office of the Company.

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\* Note: References in the By-Laws to the "Restated Articles" are to the Articles of the Corporation as amended by resolutions adopted at the Annual Meeting of shareholders on May 23, 1986, and as they may be thereafter amended or supplemented. Section references in brackets are to specific provisions of the Restated Articles, and indicate that the preceding provision is taken substantially verbatim from the Restated Articles; and capitalized terms are used as those terms are defined in the Restated Articles.

Section 1.02. Business at Annual Meetings.  
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(a) Business Agenda. The business at an annual meeting of  
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shareholders shall include: (i) a review of the business of the preceding year; (ii) the election of directors to succeed those whose terms shall expire; (iii) the selection of auditors; and (iv) such other business as may properly be brought before the meeting as provided in this Section 1.02. If for any reason the annual meeting is not held at the time fixed therefor, the election of directors may be held at a subsequent meeting called for that purpose.

(b) Notice of Business to be Presented. The proposal of business to  
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be considered by the shareholders at an annual meeting of shareholders may be made (i) pursuant to the Company's notice of meeting, (ii) by or at the direction of the Board of Directors or (iii) by any shareholder of the Company who was a shareholder of record at the time of giving of notice provided for in this Section, who is entitled to vote at the meeting and who has complied with the notice procedures set forth in this Section. For business to be properly brought before an annual meeting by a shareholder pursuant to clause (iii) of the preceding sentence, such business must be a proper matter for shareholder action, the shareholder must have given timely notice thereof in writing to the Secretary of the Company and such notice must comply with the following requirements:

(1) To be timely, a shareholder's notice given pursuant to this Section must be received at the principal executive offices of the Company, addressed to the Secretary, not less than 120 calendar days before the anniversary date of the Company's proxy statement released to shareholders in connection with the previous year's annual meeting or, if none, its most recent previous annual meeting. Notwithstanding the preceding sentence, if the date of the

annual meeting at which such business is to be presented has been changed by more than 30 days from the date of the most recent previous annual meeting, a shareholder's notice shall be considered timely if so received by the Company (A) on or before the later of (x) 150 calendar days before the date of the annual meeting at which such business is to be presented or (y) 30 days following the first public announcement by the Company of the date of such annual meeting and (B) not later than 15 calendar days prior to the scheduled mailing date of the Company's proxy materials for such annual meeting. In no event shall the public announcement of an adjournment of an annual meeting commence a new time period for the giving of a shareholder's notice as described above.

(2) A shareholder's notice given pursuant to this Section shall set forth (A) the name and address of the shareholder who intends to make the proposal and the classes and numbers of shares of the Company's stock beneficially owned by such shareholder; (B) a representation that the shareholder is and will at the time of the annual meeting be a holder of record of stock of the Company entitled to vote at such meeting on the proposal(s) specified in the notice and intends to appear in person or by proxy at the meeting to present such proposal(s), (C) a description of the business the shareholder intends to bring before the meeting, including the text of any proposal or proposals to be presented for action by the shareholders, (D) the name and address of any beneficial owner(s) of the Company's stock on whose behalf such business is to be presented and the class and number of shares beneficially owned by each such beneficial owner and (E) the reasons for conducting such business at the meeting and any material interest in such business of such shareholder or any such beneficial owner.

(c) General. (i) Only such business shall be conducted at an annual  
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meeting of shareholders as shall have been brought before the meeting in  
accordance with the procedures set forth in this Section, and only such  
business shall be conducted at a special meeting of shareholders as shall  
have been brought before the meeting in accordance with the procedures set  
forth in Section 1.04. The Chairman of the meeting shall have the power  
and the duty to determine whether any business proposed to be brought  
before a meeting was proposed in accordance with the procedures set forth  
in those Sections and, if any business is not in compliance with those  
Sections, to declare that such defective proposal shall be disregarded.

(ii) For purposes of this Section, (A) "public announcement" shall  
mean disclosure in a press release reported by the Dow Jones News Service,  
Associated Press or comparable national news service or in a document  
publicly filed by the Company with the Securities and Exchange Commission  
pursuant to Section 13, 14 or 15(d) of the Securities Exchange Act of 1934  
(the "Exchange Act") and (B) "beneficial ownership" shall be determined in  
accordance with Rule 13d-3 under the Exchange Act or any successor rule.

(iii) Notwithstanding the foregoing provisions of this Section, a  
shareholder shall also comply with all applicable requirements of the  
Exchange Act and the rules and regulations thereunder with respect to the  
matters set forth in this Section. Nothing in this Section shall be deemed  
to affect any rights of a shareholder to request inclusion of a proposal  
in the Company's proxy statement pursuant to Rule 14a-8 under the Exchange  
Act, or any successor rule, or to present for action at an annual meeting  
any proposal so included.

[Amended by the Board of Directors 3/13/01.]

Section 1.03. Special Meetings. Except as other-wise required by law

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and subject to the rights of the holders of any class or series of preferred stock with respect to any vote of the holders of such class or series when voting by class, special meetings of shareholders of the Company may be called only by the Board of Directors pursuant to a resolution approved by a majority vote of the Disinterested Directors (as that term is defined in the Restated Articles). [Restated Articles Section 12.03] Special meetings shall be held at such place as may be designated by the Board of Directors, or if not so designated, at the principal office of the Company.

Section 1.04. Business at Special Meetings. No business may be

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transacted at any special meeting of share-holders other than that the general nature of which has been stated in the notice of meeting, and business which is incidental or germane thereto.

Section 1.05. Notice of Shareholders' Meetings. Written notice

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specifying the place, date and time of each meeting of the shareholders and the purpose or purposes for which the meeting is called shall be given to all share-holders of record entitled to vote at such meeting at least ten days before the day named for the meeting.

Section 1.06. Quorum; Organization. A share-holders' meeting duly

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called shall not be organized for the transaction of business unless a quorum is present. At any meeting the presence in person or by proxy of shareholders entitled to cast at least a majority of the votes which all shareholders are entitled to cast on the particular matter shall be necessary and sufficient to constitute a quorum for the purpose of considering such matter. The shareholders present at a duly organized meeting can continue to do business until adjournment, notwithstanding the withdrawal of enough shareholders to leave less than a majority. If a meeting

cannot be organized because a quorum has not attended, those present in person or by proxy may adjourn the meeting to such time and place as they may determine, without notice other than announcement at the meeting, until a quorum as aforesaid shall be present; and in the case of any meeting called for the election of directors, such meeting may be adjourned only from day to day, or for such longer periods not exceeding fifteen days each, as may be directed by shareholders who are present in person or by proxy, and those who attend the second of such adjourned meetings, although entitled to cast less than a majority of the votes which all outstanding shares are entitled to cast, shall nevertheless constitute a quorum for the purpose of electing directors. The Chairman, or in his absence, the President, shall preside, and the Secretary shall take the minutes, at all meetings of the shareholders. In the absence of the foregoing officers the presiding officer shall be designated by the Board of Directors or if not so designated selected by the shareholders present; and in the absence of the Secretary, the presiding officer shall designate any person to take the minutes of the meeting.

Section 1.07. Vote Required; Meeting Procedure. When a quorum is

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present at any meeting, the vote of share-holders present, in person or by proxy, entitled to cast at least a majority of the votes which all shareholders present and voting (excluding abstentions) are entitled to cast on the particular matter shall decide any question brought before such meeting, except that (a) if the question is one upon which, by express provision of statute or of the Restated Articles, a different or additional vote is required, such express provision shall govern, (b) all elections shall be determined by a plurality of the votes cast, and (c) in the case of privileged, subsidiary or incidental motions or questions involving the convenience of the shareholders present, the Chairman may call for a per capita vote, either by voice or by show of hands. Elections for directors need not be by

ballot, unless otherwise ordered by the presiding officer at the meeting or unless a demand is made by a shareholder at the meeting and before the voting begins. The chairman of any meeting shall determine the order of business and the procedure at the meeting, including such regulation of the conduct of discussion as seems to him in order. The conduct of meetings shall be governed by accepted corporate practice, the fundamental rule being that all who are entitled to take part shall be treated with fairness and good faith.

Section 1.08. Proxies; Appointment and Revocation. Every shareholder

entitled to vote at a meeting of shareholders or to express consent or dissent to corporate action in writing without a meeting may authorize another person or persons, but not more than three, to act for him by proxy. Every proxy shall be appointed by an instrument in writing (including telegram, cable or radio-gram, telex or similar transmission), executed by such shareholder or by his authorized attorney, and filed with the Secretary of the Company. A proxy shall not be revoked by the death or incapacity of the maker unless, before the vote is counted or the proxy is exercised, written notice of such death or incapacity is given to the Secretary of the Company.

ARTICLE II

Directors

Section 2.01. Number, Election, etc.

(a) Number. The whole Board of Directors shall consist of such

number of persons, not less than 5 nor more than 15, as may from time to time be determined by the Board pursuant to a resolution adopted by a majority vote of the Disinterested Directors then in office. [Restated Articles Section 10.1(a)]

(b) Classes; Election and Terms. Beginning with the Board of

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Directors to be elected at the annual meeting of shareholders to be held in 1986, the directors shall be classified in respect of the time for which they shall severally hold office by dividing them into three classes, as nearly equal in number as possible. If the classes of directors are not equal, the Board of Directors by a majority vote of the Disinterested Directors then in office shall determine which class shall contain an unequal number of directors. At the annual meeting of shareholders to be held in 1986, separate elections shall be held for the directors of each class, the term of office of directors of the first class to expire at the first annual meeting after their election; the term of office of the directors of the second class to expire at the second annual meeting after their election; and the term of office of the directors of the third class to expire at the third annual meeting after their election. At each succeeding annual meeting, the shareholders shall elect directors of the class whose term then expires, to hold office until the third succeeding annual meeting. Each director shall hold office for the term for which elected and until his or her successor shall be elected and shall qualify. [Restated Articles Section 10.1(b)]

(c) Removal of Directors. Any directors, any class of directors or

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the entire Board of Directors may be removed from office by shareholder vote at any time, without assigning any cause, but only if shareholders entitled to cast at least 80% of the votes which all shareholders would be entitled to cast at an annual election of directors or of such class of directors shall vote in favor of such removal; provided, however, that the shareholders shall have such power of removal without cause only if and so long as the general corporate law of the Company's state of incorporation specifically mandates such power. If such power of removal without cause is not mandated by statute, the shareholders may remove a director or directors from office at any time

only for cause and only if, in addition to any vote required by any other provision of law, the Articles or the By-Laws of the Company, such removal is approved by the affirmative vote of at least a majority of the Voting Power of the outstanding shares of Voting Stock of the Company which are not Beneficially Owned by an Acquiring Person [Restated Articles Section 10.1(c)]

(d) Vacancies. Vacancies in the Board of Directors, including

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vacancies resulting from an increase in the number of directors, shall be filled only by a majority vote of the Disinterested Directors then in office, though less than a quorum, except as otherwise required by law. All directors elected to fill vacancies shall hold office for a term expiring at the annual meeting of shareholders at which the term of the class to which they have been elected expires. No decrease in the number of directors constituting the Board of Directors shall shorten the term of an incumbent director. [Restated Articles Section 10.1(d)]

(e) Nomination of Director Candidates. Nominations for the election

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of directors may be made only by the Board of Directors or a committee appointed by the Board of Directors or by any holder of record of stock entitled to vote in the election of the directors to be elected; but a nomination may be made by a shareholder only if written notice of such nomination has been given, either by personal delivery or by United States mail, postage pre- paid, to the Secretary of the Company not later than 90 days in advance of the meeting at which the election is to be held. Each such notice shall set forth: (a) the name and address of the shareholder who intends to make the nomination and of the person or persons to be nominated; (b) a representation that the shareholder is a holder of record of stock of the Company entitled to vote at such meeting and intends to appear in person or by proxy at the meeting to nominate the person or persons specified in the notice; (c) a description of all arrangements or understandings

between the shareholder and each nominee and any other person or persons (naming such person or persons) pursuant to which the nomination or nominations are to be made by the shareholder; (d) such other information regarding each nominee proposed by such shareholder as would be required to be included in a proxy statement filed pursuant to the proxy rules of the Securities and Exchange Commission, had the nominee been nominated by the Board of Directors; and (e) the consent of each nominee to serve as a director of the Company if so elected. [Restated Articles Section 10.1(e)]

(f) Exception for Directors Elected by Preferred Stock. Whenever the

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holders of any class or series of stock having a preference over the Common Stock of the Company as to dividends or assets shall have the right, voting separately as a class, to elect one or more directors of the Company, none of the foregoing provisions of this Section 2.01 shall apply with respect to the director or directors elected by such holders of preferred stock. [Restated Articles Section 10.1(f)]

(g) In case of a vacancy in the office of any director elected by the preferred stock, the remaining directors or director elected by the preferred stock may choose a successor who shall hold office for the unexpired term in respect of which such vacancy occurred.

(h) Each director shall hold office from the time of his election, but shall be responsible as a director from such time only if he consents to his election; otherwise from the time he accepts office or attends his first meeting of the Board.

Section 2.02. Organization Meeting; Notice. An organization meeting

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of the newly elected Board of Directors shall be held each year promptly after the annual meeting of shareholders

at a place designated by the Chairman or the President. At such meeting the Board of Directors shall organize itself and elect the executive officers of the Company and members of standing Committees for the ensuing year, and may transact any other business. Notice of the organization meeting of the Board or of the business to be transacted thereat shall not be required to be given, except as otherwise expressly required herein or by law.

Section 2.03. Regular Meetings; Notice. Regular meetings of the  
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Board shall be held at such time and place as shall be designated by the Board of Directors from time to time, or if not so designated, as determined by the Chairman or the President. Notice of such regular meetings of the Board shall not be required to be given, except as otherwise expressly required herein or by law, except that whenever the time or place of regular meetings shall be initially fixed or changed, notice of such action shall be given promptly by telephone or otherwise to each director not participating in such action. Any business may be transacted at any regular meeting.

Section 2.04. Special Meetings; Notice. Special meetings of the  
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Board may be called at any time by the Board itself by vote at a meeting, or by any three directors, or by the Chairman or the President, to be held at such place and day and hour as shall be specified by the person or persons calling the meeting, or if not so specified by the Secretary. Notice of every special meeting of the Board of Directors, which states the place, day and hour thereof, shall be given to each director either by being mailed on at least the second calendar day prior to the date of the meeting, or by being sent by telex or telegraph or given personally or by telephone prior to the date of the meeting. Neither the call of a special meeting nor the notice thereof need specify the purpose thereof or the business to be transacted thereat, except as otherwise expressly required herein or by law.

Section 2.05. Quorum. At all meetings of the Board of Directors, the

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presence or participation by other lawful means of a majority of the directors in office shall be necessary and sufficient to constitute a quorum for the transaction of business. The Directors present at a duly organized meeting shall continue to constitute a quorum until adjournment, notwithstanding the withdrawal of enough Directors to leave less than a majority. If a quorum is not present at any meeting, the meeting may be adjourned from time to time by a majority of the directors present, without notice other than announcement at the meeting, until a quorum as aforesaid shall be present.

Section 2.06. Action. Resolutions of the Board shall be adopted, and

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any action of the Board at a meeting upon any matter shall be taken and be valid, with the affirmative vote of at least a majority of the directors present at a meeting duly organized, except as otherwise provided herein, in the Restated Articles or by law. The Chairman, or in his absence the President, shall preside at all meetings of the Board of Directors. The Secretary shall take the minutes at all meetings of the Board. In the absence of the foregoing officers the Directors present shall select a member of the Board to preside; and in the absence of the Secretary, the presiding officer shall designate any person to take the minutes of the meeting. The yeas and nays shall be taken and recorded in the minutes at the request of any director present at a meeting.

Section 2.07. Participation Other Than By Attendance. One or more of

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the Directors may participate in any regular or special meeting of the Board or of a committee of the Board by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting are able to hear each other, or by any other lawful means in lieu of attendance, any may act by proxy to the extent at the time

permitted by law. All directors so participating shall be deemed present at the meeting.

Section 2.08. Emergency Provisions. Notwithstanding any other

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provisions of law, the Articles or these By-Laws, during any emergency period caused by war or any other national catastrophe or local disaster of sufficient severity to prevent the conduct and management of the business and affairs of the Company by its Board of Directors and officers as contemplated by the other provisions of these By-Laws, a majority of the available Directors (or the sole such Director) who have not been rendered incapable of acting because of incapacity or the difficulty of communication or transportation to the place of meeting shall constitute a quorum for the sole purpose of electing Directors to fill such vacancies or to reduce the size of the full Board or both; and a majority of the directors (or the sole survivor) present at such a meeting may take such action. Directors so elected shall serve until the absent Directors are able to attend meetings or until the shareholders act to elect Directors to succeed them. During such an emergency period, if both the Board and the Executive Committee are unable or fail to meet, any action appropriate to the circumstances may be taken by such officers of the Company as may be present and able. Questions as to the existence of a national catastrophe or local disaster and the number of surviving members capable of acting shall be conclusively determined at the time by the Directors or the officers so acting.

Section 2.09. Presumption of Assent. Minutes of each meeting of the

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Board shall be made available to each director at or before the next succeeding regular meeting. Every director shall be presumed to have assented to such minutes unless his objection thereto shall be made to the Secretary within two days after such next regular meeting.

Section 2.10. Resignations. Any director may resign by submitting to

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the Chairman of the Board or the President his resignation, which (unless otherwise specified therein) need not be accepted to make it effective and shall be effective immediately upon its receipt by such officer.

Section 2.11. Committees.  
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(a) Appointments; Powers. Except as otherwise provided in subsection

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(b) pertaining to the Executive Committee, standing or temporary committees shall consist of one or more Directors of the Company and such other members, who need not be directors, as the Board may direct and may be appointed from time to time by a majority of the Directors present or participating at any regular or special meeting. The Board may from time to time invest committees with such power and authority, subject to such conditions as it may see fit, except that no committee shall have any power or authority to adopt, amend or repeal any By-Law.

(b) Executive Committee. An Executive Committee of three or more

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directors may be appointed by resolution adopted by a majority of the directors in office; it shall have all the powers and exercise all of the authority of the Board during intervals between meetings, except as specially limited by the Board. Meetings of the Executive Committee may be called at any time by any member, to be held at such place and day and hour as shall be specified by the person or persons calling the meeting, or if not so specified by the Secretary. Notice of every meeting of the Executive Committee, which states the place, day and hour thereof, but need not state the purposes thereof, shall be given to each member either by being mailed on at least the second calendar day prior to the date of the meeting, or by being sent by telegraph or given personally or by telephone prior to the date of the meeting. the presence or participation by other lawful means of a majority of the members of the Committee shall be necessary and sufficient

to constitute a quorum for the transaction of business, and any action of the Committee upon any matter shall be taken and be valid with the affirmative vote of at least a majority of the members of the Committee. The Executive Committee shall keep a record of all action taken and report such action to the Board of Directors at its next meeting thereafter.

(c) Term; Vacancies; Absence or Disqualification. All committee

members appointed by the Board shall serve during the pleasure of the Board, which may fill vacancies and may designate one or more Directors as alternate members of any committee, to take the place of any absent or disqualified member at any meeting. In the absence or disqualification of any member or alternate member of any committee or committees, the member or members thereof participating at any meeting and not disqualified from voting, whether or not he, she or they constitute a quorum, may unanimously appoint another Director to act at the meeting in the place of any such absent or disqualified member or alternate member.

(d) Organization; Finality of Action. All committees shall keep such

record of the transactions of their meetings as the Board or these By-Laws shall direct. All committees shall determine their own organization, procedures, and times and places of meeting, unless otherwise directed by the Board and except as otherwise provided in these By-Laws. Any action taken by any committee shall be subject to alteration or revocation by the Board; provided, however, that third parties shall not be prejudiced by such alteration or revocation.

Section 2.12. Compensation. By resolution of the Board, Directors

may be paid a fixed sum and expenses, if any, of attendance for any regular or special meeting of the Board or any committee, and may in addition be paid an annual retainer fee or a

retirement allowance, or both. Directors shall also be entitled to receive such compensation for services rendered to the Company as officers, committee members, or in any capacity other than as directors, as may be provided from time to time by resolution of the Board. [Amended by Board of Directors 12-17-87.]

ARTICLE III

Officers and Employees  
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Section 3.01. Executive Officers. The executive officers of the  
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Company shall be the Chairman of the Board, the President, one or more Vice Presidents (as may be determined by the Board of Directors), the Secretary and the Treasurer. The executive officers shall be elected by the Board of Directors. Any two or more offices may be held by the same person, except that the same person shall not be President and Secretary. Each executive officer shall hold office at the discretion of the Board until the next succeeding annual meeting of the Board of Directors and thereafter until his or her successor is duly elected and qualifies, or until his or her earlier death, resignation or removal. The Board may authorize the Company to enter into employment contracts and/or consulting agreements with any executive officer for such periods as may be deemed appropriate including periods longer than one year, and the provision herein for annual election shall be without prejudice to the contract rights, if any, of executive officers under such contracts.

Section 3.02. Additional and Assistant Officers, Agents and  
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Employees. The Board of Directors, the Chairman and the President each may from  
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time to time appoint or hire one or more other officers, assistant officers, agents, employees and independent contractors as are deemed advisable; and the Board of Directors, the Chairman or the President may prescribe their duties, conditions of employment and compensation and may dismiss

them without prejudice to their contract rights, if any. [Amended by Board of Directors 8-29-90.]

Section 3.03. The Chairman of the Board. The Chairman of the Board,

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who shall be elected from among the Directors, shall be the Chief Executive Officer of the Company and shall preside at all meetings of the Board of Directors and of the Shareholders. He shall exercise the powers and perform duties usual to the Chief Executive officer and, subject to the control and direction of the Board of Directors, shall have management and supervision over and exercise general executive powers concerning all the property, business and affairs of the Company. He shall see that all policies, programs, orders and resolutions of the Board of Directors are carried into effect, and shall have such other powers and duties as from time to time may be assigned to him by the Board of Directors or these By-Laws. He shall have the power to execute deeds, bonds, mortgages, and other contracts, agreements and instruments of the Company. He shall be, ex officio, a member of all standing committees of the Board except the committee on officers' compensation. [Amended by Board of Directors 6-27-90.]

Section 3.04. The President. The President shall be subject to the

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control and direction of the Chairman of the Board and shall direct and supervise those affairs of the Company assigned to him by the Chairman, the Board of Directors, or the By-Laws. In the absence of or disability of the Chairman of the Board, the President shall be the Chief Executive Officer. He shall have the power to execute deeds, bonds, mortgages, and other contracts, agreements and instruments of the Company. [Amended by Board of Directors 6-27-90.]

Section 3.05. The Vice Presidents. The Vice Presidents, one or more

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of whom may be designated executive, senior, group or administrative vice president, or given other descriptive title,

shall have such powers and perform such duties in such capacities as may be assigned by the Board of Directors or the Chairman of the Board. [Amended by Board of Directors 6-27-90.]

Section 3.06. The Secretary. The Secretary shall: (a) be custodian

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of the Company's contracts, policies, leases, deeds and other indicia of title, and all other business records; (b) keep or cause to be kept at the registered office or the principal place of business of the Company an original or duplicate record of the proceedings of the shareholders and the Board of Directors, and a copy of the Articles of the Company and of these By-Laws; (c) attend to the giving of notices of the Company as may be required by law or these By-Laws; (d) be custodian of the corporate records and of the seal of the Company and see that the seal is affixed to such documents as may be necessary or advisable; (e) have charge of and keep at the registered office or the principal place of business of the Company, or cause to be kept at the office of a transfer agent or registrar an original or duplicate share register, giving the names of the shareholders in alphabetical order, and showing their respective addresses, the number and classes of shares held by each, the number and date of certificates issued for the shares, and the date of cancellation of every certificate surrendered for cancellation; and (f) have such powers and duties as may from time to time be prescribed by the Board of Directors or the Chairman. [Amended by Board of Directors 8-29-90.]

Section 3.07. The Vice President - Finance. If a Vice President -

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Finance is elected by the Board of Directors, he or she (a) shall serve as the Company's Chief Financial Officer; (b) shall, subject to the approval of the Chairman, recommend financing, investing, borrowing, tax, insurance and internal audit policies for the Company; (c) shall be responsible for the preparation of consolidated financial statements required by the

Board of Directors or the Chairman; (d) shall see that the lists, books, reports, statements, tax returns, certificates and other documents and records required by law are properly prepared, completed and filed; and (e) shall have such other powers and duties in such capacities as may from time to time be prescribed by the Board of Directors or the Chairman. If the Board does not elect a Vice President - Finance, the powers and duties herein set forth shall be exercised by the Treasurer. [Amended by Board of Directors 8-29-90.]

Section 3.08. The Treasurer. The Treasurer (a) shall have powers and

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perform such duties in such capacities as may be assigned by the Board of Directors or the Vice President - Finance in the development of financing, investing and borrowing policies, and shall administer these policies; (b) shall have charge and custody of and be responsible for the corporate funds, securities and investments; (c) shall receive, endorse for collection, and give receipts for checks notes, obligations, funds and securities of the Company, and deposit monies and other valuable effects in the name and to the credit of the Company in such depositories as shall be designated by the Board of Directors; (d) subject to the provisions of Section 5.01 of the By-Laws, shall cause to be disbursed the funds of the Company by payment in cash or by checks or drafts upon the authorized depositories of the Company, and cause to be taken and preserved proper vouchers and receipts for such disbursements; (e) shall coordinate financing of the Company's international subsidiaries; and (f) shall have such other powers and duties as may from time to time be prescribed by the Board of Directors or the Vice President - Finance. [Amended by Board of Directors 8-29-90.]

Section 3.9. Delegation of Duties. In case of the absence of any

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officer of the Company, or for any other reason that the Board may deem sufficient, the Board of Directors may delegate

for the time being the powers and duties, or any of them, of any officer to any other officer or director or other person whom it may select.

ARTICLE IV

Shares of Capital Stock  
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Section 4.01. Share Certificate. Every holder of fully-paid stock in  
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the Company shall be entitled to a certificate or certificates, consecutively numbered, to be in such form as the Board of Directors may from time to time prescribe, and signed (in facsimile or otherwise, as permitted by law) by the Chairman, the President or a Vice President and by the Secretary or the Treasurer which shall represent and certify the number of shares of stock owned by such holder. The Board may authorize the issuance of certificates for fractional shares or, in lieu thereof, scrip or other evidence of ownership, which may (or may not) as determined by the Board entitle the holder thereof to voting, dividend or other rights of shareholders.

Section 4.02. Transfer of Shares. Transfers of shares of stock of  
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the Company shall be made on the books of the Company only upon surrender to the Company for cancellation of the certificate or certificates for such shares properly endorsed, by the registered shareholder or by his assignee, agent or legal representative, who shall furnish proper evidence of succession, assignment or authority to transfer, or by the agent of one or the fore-going there unto duly authorized by an instrument duly executed and filed with the Company in accordance with regular commercial practice.

Section 4.03. Replacement of Certificates. New certificates for  
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shares of stock may be issued to replace certificates alleged to have been lost, stolen, destroyed or

mutilated upon such terms and conditions, including an affidavit of loss or destruction and the giving of a satisfactory bond of indemnity, as the Board of Directors from time to time may determine.

Section 4.04. Regulations Relating to Shares. The Board of Directors

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shall have power and authority to make all such rules and regulations not inconsistent with these By-Laws as it may deem expedient concerning the issue, transfer and registration of certificates representing shares of the Company.

Section 4.05. Record Date. The Board of Directors may fix a record

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date for the determination of shareholders for any purpose, including the right to notice of or to vote at meetings, payment of dividends or distributions, allotment of rights, or change, reclassification, conversion or exchange of shares, up to 90 days prior to the action for which the record date is fixed. The Company shall be entitled to treat the holder of record of any share or shares of stock of the Company as the holder and owner in fact thereof for all purposes and shall not be bound to recognize any equitable or other claim to or right, title or interest in any share on the part of any other person, whether or not it shall have express or other notice thereof, except as otherwise expressly provided by the laws of Pennsylvania. [Amended by the Board of Directors 3/13/01.]

ARTICLE V

Miscellaneous Corporate Transactions and Documents

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Section 5.01. Borrowing. No officer, agent or employee of the

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Company shall have any power or authority to borrow money on its behalf, to guarantee or pledge its credit, or to mortgage or pledge any of its real or personal property, except within the scope and to the extent of the authority delegated by the Board of

Directors. Authority may be granted by the Board for any of the above purposes and may be general or limited to specific instances.

Section 5.02. Execution of Instruments Generally. All properly

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authorized notes, bonds, drafts, acceptances, checks, endorsements (other than for deposit), guarantees, and all evidences of indebtedness of the Company whatsoever, and all properly authorized deeds, mortgages, contracts and other instruments requiring execution by the Company may be executed and delivered by the Chairman, the President or any Vice President or the Treasurer of the Company; and authority to sign any such contracts or instruments, which may be general or confined to specific instances, may be conferred by the Board of Directors upon any other person or persons, subject to such requirements as to countersignature or other conditions, as the Board of Directors from time to time may determine. Facsimile signature on checks, notes, bonds and other instruments may be used if authorized by the Board of Directors. Any person having authority to sign on behalf of the Company may delegate, from time to time, by instrument in writing, all or any part of such authority to any person or persons if authorized so to do by the Board of Directors.

Section 5.03. Voting and Acting with Respect to Securities Owned by

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Company. The Chairman of the Board of Directors, the President or any Vice

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President each shall have the power and authority to vote and act with respect to all stock and other securities in any other corporation held by this Company, unless the Board confers such authority, which may be general or specific, upon some other person. Any person so authorized to vote securities shall have the power to appoint an attorney or attorneys, with general power of substitution, as proxies for the Company, with full power to vote and act in behalf of the Company with respect to such stock and other securities.

ARTICLE VI

General Provisions

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Section 6.01. Offices. The principal office and place of business of

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the Company shall be at 121 Gamma Drive, Pittsburgh, Allegheny County, Pennsylvania. The Company may also have offices at such other places within or without the Commonwealth of Pennsylvania as the business of the Company may require.

Section 6.02. Corporate Seal. The Board of Directors shall prescribe

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the form of a suitable corporate seal, which shall contain the full name of the Company and the year and state of incorporation.

Section 6.03. Fiscal Year. The fiscal year of the Company shall

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begin the first day of January and terminate on the last day of December in each year.

Section 6.04. Financial Reports to Shareholders. The Board of

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Directors shall have discretion to determine whether financial statements shall be sent to shareholders, what such reports shall contain, and whether they shall be audited or accompanied by the report of an independent or certified public accountant.

ARTICLE VII

Indemnification

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[Approved by Shareholders 4/24/87.]

Section 7.01. Indemnification of Directors, Officers and Others.

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(a) Right to Indemnification. Except as prohibited by law, every

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Director and officer of the Company shall be entitled as

of right to be indemnified by the Company against expenses and any liability paid or incurred by such person in connection with any actual or threatened claim, action, suit or proceeding, civil, criminal, administrative, investigative or other, whether brought by or in the right of the Company or otherwise, in which he or she may be involved, as a party or otherwise, by reason of such person being or having been a Director or officer of the Company or by reason of the fact that such person is or was serving at the request of the Company as a director, officer, employee, fiduciary or other representative of another corporation, partnership, joint venture, trust, employee benefit plan or other entity (such claim, action, suit or proceeding hereinafter being referred to as "Action"); provided that no such right or indemnification shall exist with respect to an Action brought by an indemnitee (as hereinafter defined) against the Company except as provided in the last sentence of this Subsection (a). Persons who are not directors or officers of the Company may be similarly indemnified in respect of service to the Company or to another such entity at the request of the Company to the extent the Board of Directors at any time denominates any of such persons as entitled to the benefits of this Section. As used in this Section 7.01, "indemnitee" shall include each Director and officer of the Company and each other person denominated by the Board of Directors as entitled to the benefits of this Section, "expenses" shall include fees and expenses of counsel selected by any such indemnitee and "liability" shall include amounts of judgments, excise taxes, fines, penalties and amounts paid in settlement. An indemnitee shall be entitled to be indemnified pursuant to this Subsection (a) for expenses incurred in connection with any Action brought by an indemnitee against the Company only (i) as provided under Subsection (c) of this Section, (ii) if the indemnitee is successful in whole or in part in the Action for which expenses are claimed or (iii) if the indemnification for expenses is included in a settlement of the Action or is awarded by a court.

(b) Right to Advancement of Expenses. Every indemnitee shall be

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entitled as of right to have his or her expenses in defending any Action or in any Action under Subsection (c) paid in advance by the Company prior to final disposition of such Action, subject to any obligation which may be imposed by law or by provision in the Articles, By-Laws, agreement or otherwise to reimburse the Company in certain events.

(c) Right of Indemnitee to Initiate Action. If a written claim under

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Subsection (a) or Subsection (b) of this Section is not paid in full by the Company within thirty days after such claim has been received by the Company, the indemnitee may at any time thereafter initiate an Action against the Company to recover the unpaid amount of the claim and, if successful in whole or in part, the indemnitee shall also be entitled to be paid the expense of prosecuting such Action. The only defense to any Action to recover a claim under Subsection (a) of this Section shall be that the indemnitee's conduct was such that under Pennsylvania law the Company is prohibited from indemnifying the indemnitee for the amount claimed, but the burden of proving such defense shall be on the Company. Neither the failure of the Company (including its Board of Directors, independent legal counsel and its shareholders) to have made a determination prior to the commencement of such suit that indemnification of the indemnitee is proper in the circumstances, nor an actual determination by the Company (including its Board of Directors, independent legal counsel or its shareholders) that the indemnitee's conduct was such that indemnification is prohibited by law, shall be a defense to such Action or create a presumption that the indemnitee's conduct was such that indemnification is prohibited by law. The only defense to any such Action to receive payment of expenses in advance under Subsection (b) of this Section shall be failure to make an

undertaking to reimburse if such an undertaking is required by law or by provision in the Articles, By-Laws, agreement or otherwise.

(d) Insurance and Funding. The Company may purchase and maintain

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insurance to protect itself and any person eligible to be indemnified hereunder against any liability or expense asserted or incurred by such person in connection with any Action, whether or not the Company would have the power to indemnify such person against such liability or expense by law or under the provisions of this Section. The Company may create a trust fund, grant a security interest, cause a letter of credit to be issued or use other means (whether or not similar to the foregoing) to ensure the payment of such sums as may become necessary to effect indemnification a provided herein.

(e) Non-Exclusivity; Nature and Extent of Rights. The right of

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indemnification and advancement of expenses provided for in this Section (i) shall not be deemed exclusive of any other rights, whether now existing or here-after created, to which any indemnitee may be entitled under any agreement or by-law, charter provision, vote of share-holders or directors or otherwise (ii) shall be deemed to create contractual rights in favor of each indemnitee, (iii) shall continue as to each person who has ceased to have the status pursuant to which he or she was entitled or was denominated as entitled to indemnification under this Section and shall inure to the benefit of the heirs and legal representatives of each indemnitee and (iv) shall be applicable to Actions commenced after the adoption of this Section, whether arising from acts or omissions occurring before or after the adoption of this Section. The rights of indemnification and advancement of expenses provided for in this Section may not be amended or repealed so as to limit in any way the indemnification or the right to advancement of expenses provided for in this Section with respect to any acts

or omissions occurring prior to the adoption of any such amendment or repeal.

(f) Effective Date. This Section 7.01 shall apply to every Action

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other than an Action filed prior to January 27, 1987, except that it shall not apply to the extent that Pennsylvania law does not permit its application to any breach of performance of duty or any failure of performance of duty by an indemnitee occurring prior to January 27, 1987. [Approved by Shareholders 4/24/87.] [Restated Articles, Article 14th.]

Section 7.02 Personal Liability of Directors.

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(a) To the fullest extent that the laws of the Commonwealth of Pennsylvania, as in effect on January 27, 1987 or as thereafter amended, permit elimination or limitation of the liability of directors, no Director of the Company shall be personally liable for monetary damages as such for any action taken, or any failure to take any action, as a Director.

(b) This Section 7.02 shall not apply to any actions filed prior to January 27, 1987, nor to any breach of performance of duty or any failure of performance of duty by any Director of the Company occurring prior to January 27, 1987. The provisions of this Section shall be deemed to be a contract with each Director of the Company who serves as such at any time while this Section is in effect and each such Director shall be deemed to be doing so in reliance on the provisions of this Section. Any amendment or repeal of this Section or adoption of any other By-Law or provision of the Articles of the Company which has the effect of increasing Director liability shall operate prospectively only and shall not affect any action taken, or any failure to act, prior to the adoption of such amendment, repeal, other By-Law or provision.

ARTICLE VIII

Amendments

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Section 8.01. Amendments to By-Laws. The Board of Directors, by vote

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of a majority of the Disinterested Directors, may adopt, amend and repeal the By-Laws with respect to those matters which are not, by statute, reserved exclusively to the shareholders. No By-Law may be adopted, amended or repealed by the shareholders unless, in addition to any vote required by any other provision of law, the Articles or the By-Laws of the Company, such action is approved by the holders of a majority of the Voting Power of the Voting Stock of the Company which is not Beneficially Owned by an Acquiring Person, unless such action has been previously approved by a majority vote of the Disinterested Directors. [Restated Articles Section 12.1]

ARTICLE IX

Non-Applicability of Statute

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Section 9.01. Non-Applicability of Statute. Subchapter 25G

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(Control-Share Acquisitions) of the Pennsylvania Business Corporation Law, added by the Act of April 27, 1990 (P.L. 129, No. 36), shall not be applicable to the Company. [This By-Law provision was adopted by action of the Board of Directors on June 27, 1990.]

MINE SAFETY APPLIANCES COMPANY  
RETIREMENT PLAN FOR DIRECTORS,

As Amended Effective as of April 1, 2001  
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1. Purpose. The purpose of this plan, as originally established  
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December 17, 1987, was to provide to each individual serving as a member of the Board of Directors from time to time (individually referred to as a "Director" and collectively as the "Board") of Mine Safety Appliances Company (the "Company"), a lifetime retirement benefit following the attainment of certain age and service requirements described hereafter. Effective April 1, 2001, the Plan was amended to freeze benefits as of that date.

2. Eligibility. A Director who has terminated his or her service on  
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the Board, whether before or after April 1, 2001, after completing at least 5 years of service as a Director shall be entitled to an annual "Retirement Allowance" during his or her lifetime, as described below, when his or her combined age and service as a Director, whether before or after April 1, 2001, satisfy the "Rule of 75". The "Rule of 75" shall be satisfied when the sum of the Director's age (measured in full and partial years, in increments of one-twelfth (1/12) year) and the Director's years of service as a Director (measured in full and partial years, in increments of one-twelfth (1/12) year) equals or exceeds 75. A Director who has not terminated his or her service but has satisfied the "Rule of 75" as described herein shall have a vested right to an annual "Retirement Allowance" during his or her lifetime, as described below.

3. Retirement Allowance. Subject to Section 4 hereof, the amount of  
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the annual Retirement Allowance paid to a retired Director shall be equal to \$20,000 multiplied by a fraction of which the numerator is the Director's years of service (measured as provided in Section 2) as of March 31, 2001 and the denominator is the Director's years of service (whether before or after March 31, 2001) required to satisfy the "Rule of 75." The amount of the annual Retirement Allowance, as so computed, for each eligible Director serving on the Board as of March 31, 2001 is shown in the attached Schedule. The annual Retirement Allowance shall be paid in four equal installments as of the first day of each calendar quarter, beginning with the calendar quarter following the Director's termination of service and including the calendar quarter in which the Director's death occurs. No Retirement Allowance payments shall be made following the death of a retired Director.

4. Effect of Change in Control. Notwithstanding any other provision  
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of this Plan, if a Director is vested in his or her Retirement Allowance on the date of the Director's termination of service and that termination date occurs on,

or within the three-year period immediately following, a Change in Control (as defined in this Section 4), then, not later than the fifth (5th) business day following such termination date, the Company shall pay the Director a lump sum amount equal to the actuarial equivalent of the Director's Retirement Allowance (in lieu of making payment of such Retirement Allowance in accordance with Section 3 hereof). For purposes of this Section 4, "actuarial equivalent" shall be determined using the same assumptions utilized under the Non-Contributory Pension Plan for Employees of Mine Safety Appliances Company (or successor plan thereto) immediately prior to the Director's termination date, or, if more favorable to the Director, immediately prior to the Change in Control.

Change in Control shall be deemed to have occurred if the event set  
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forth in any one of the following paragraphs shall have occurred:

(I) any Person (as defined in this Section 4) is or becomes the Beneficial Owner (as defined in this Section 4), directly or indirectly, of securities of the Company (not including in the securities beneficially owned by such Person any securities acquired directly from the Company or its Affiliates (which term shall have the meaning set forth in Rule 12b-2 promulgated under Section 12 of the Exchange Act, as defined in this Section 4)) representing thirty percent (30%) or more of the combined voting power of the Company's then outstanding securities, excluding any Person who becomes such a Beneficial Owner in connection with a transaction described in clause (I) of paragraph (III) below; or

(II) the following individuals cease for any reason to constitute a majority of the number of directors then serving: individuals who, on May 5, 1998, constitute the Board and any new director (other than a director whose initial assumption of office is in connection with an actual or threatened election contest, including but not limited to a consent solicitation, relating to the election of directors of the Company) whose appointment or election by the Board or nomination for election by the Company's shareholders was approved or recommended by a vote of at least two-thirds (2/3) of the directors then still in office who either were directors on May 5, 1998 or whose appointment, election or nomination for election was previously so approved or recommended; or

(III) there is consummated a merger or consolidation of the Company or any direct or indirect subsidiary of the Company with any other corporation, other than (I) a merger or consolidation

which would result in the voting securities of the Company outstanding immediately prior to such merger or consolidation continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or any parent thereof), in combination with the ownership of any trustee or other fiduciary holding securities under an employee benefit plan of the Company or any subsidiary of the Company, at least fifty-one percent (51%) of the combined voting power of the securities of the Company or such surviving entity or any parent thereof outstanding immediately after such merger or consolidation, or (ii) a merger or consolidation effected to implement a recapitalization of the Company (or similar transaction) in which no Person is or becomes the Beneficial Owner, directly or indirectly, of securities of the Company representing thirty percent (30%) or more of the combined voting power of the Company's then outstanding securities; or

(IV) the shareholders of the Company approve a plan of complete liquidation or dissolution of the Company or there is consummated an agreement for the sale or disposition by the Company of all or substantially all of the Company's assets, other than a sale or disposition by the Company of all or substantially all of the Company's assets to an entity, at least fifty-one percent (51%) of the combined voting power of the voting securities of which are owned by shareholders of the Company in substantially the same proportions as their ownership of the Company immediately prior to such sale.

Notwithstanding the foregoing, a Change in Control shall not be deemed to have occurred by virtue of the consummation of any transaction or series of integrated transactions immediately following which the record holders of the common stock of the Company immediately prior to such transaction or series of transactions continue to have substantially the same proportionate ownership in an entity which owns all or substantially all of the assets of the Company immediately following such transaction or series of transactions.

Beneficial Owner shall have the meaning set forth in Rule 13d-3 under the  
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Exchange Act.

Exchange Act shall mean the Securities and Exchange Act of 1934, as  
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amended from time to time.

Person shall have the meaning given in Section 3(a)(9) of the Exchange  
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Act, as modified and used in Sections 13(d) and 14(d) thereof, except that such term shall

not include (I) the Company or any of its subsidiaries, (ii) a trustee or other fiduciary holding securities under an employee benefit plan of the Company or any of its Affiliates, (iii) an underwriter temporarily holding securities pursuant to an offering of such securities, or (iv) a corporation owned, directly or indirectly, by the shareholders of the Company in substantially the same proportions as their ownership of stock of the Company, or (v) any individual or entity [including the trustees (in such capacity) of any such entity which is a trust] which is, directly or indirectly, the Beneficial Owner of securities of the Company representing five percent (5%) or more of the combined voting power of the Company's then outstanding securities immediately before the date hereof or any Affiliate of any such individual or entity, including, for purposes of this Plan, any of the following: (A) any trust (including the trustees thereof in such capacity) established by or for the benefit of any such individual; (B) any charitable foundation (whether a trust or a corporation, including the trustees or directors thereof in such capacity) established by any such individual; (C) any spouse of any such individual; (D) the ancestors (and spouses) and lineal descendants (and spouses) of such individual and such spouse; (E) the brothers and sisters (whether by the whole or half blood or by adoption) of either such individual or such spouse; or (F) the lineal descendants (and their spouses) of such brothers and sisters.

5. Source of Payments. This plan shall not be formally funded; a

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Director's right to the payment of a Retirement Allowance hereunder, if any, shall be entirely contractual. The sole source of payment of Retirement Allowances shall be the general assets of the Company.

6. Amendment and Termination. This plan may be amended or terminated

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at any time by the Board, except that no such amendment or termination shall limit or impair the right of any retired Director to the payment of the Retirement Allowance hereunder or the vested right of any Director to the payment of the Retirement Allowance.

IN WITNESS WHEREOF, Mine Safety Appliances Company has caused this plan, as amended effective as of April 1, 2001, to be executed by its duly authorized officers this 16/th/ day of March, 2001.

ATTEST: MINE SAFETY APPLIANCES COMPANY

Donald H. Cuzzo  
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Secretary

By John T. Ryan III  
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Chairman and Chief Executive Officer

Mine Safety Appliances  
 Board of Directors Pension Plan  
 Rule-of-75 Benefits Calculated as of April 1, 2001

Name	Birthdate	Director Date	Current Age	Current Service	Rule-of-75 Age at Retirement	Rule-of-75 Service at Retirement	Rule-of-75 Accrued Retainer
Joseph Calihan	03/01/38	02/26/93	63.1	8.1	65.0	10.0	\$ 16,200
John Ryan, III	08/06/43	01/27/81	57.7	20.2	57.7	20.2	20,000
Thomas Hotopp	06/29/41	03/11/98	59.8	3.1	65.9	9.2	6,739
Calvin Campbell Jr.	09/01/34	04/27/94	66.6	6.9	67.4	7.7	17,922
Thomas Witmer	04/14/42	06/25/97	59.0	3.8	65.1	9.9	7,677
L. Edward Shaw	07/30/44	12/16/98	56.7	2.3	64.7	10.3	4,466
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Total							\$ 73,004

MINE SAFETY APPLIANCES COMPANY

1990 NON-EMPLOYEE DIRECTORS' STOCK OPTION PLAN

(As amended effective April 1, 2001)

The purposes of the 1990 Non-Employee Directors' Stock Option Plan (the "Plan") are to promote the long-term success of Mine Safety Appliances Company (the "Company") by creating a long-term mutuality of interests between the non-employee Directors and shareholders of the Company, to provide an additional inducement for such Directors to remain with the Company and to provide a means through which the Company may attract able persons to serve as Directors of the Company.

SECTION 1  
Administration

The Plan shall be administered by a Committee (the "Committee") appointed by the Board of Directors of the Company (the "Board") and consisting of not less than two members of the Board. The Committee shall keep records of action taken at its meetings. A majority of the Committee shall constitute a quorum at any meeting, and the acts of a majority of the members present at any meeting at which a quorum is present, or acts approved in writing by a majority of the Committee, shall be the acts of the Committee.

The Committee shall interpret the Plan and prescribe such rules, regulations and procedures in connection with the operations of the Plan as it shall deem to be necessary and advisable for the administration of the Plan consistent with the purposes of the Plan. All questions of interpretation and application of the Plan, or as to stock options or restricted stock awards granted under the Plan, shall be subject to the determination of the Committee, which shall be final and binding.

Notwithstanding the above, the selection of the Directors to whom stock options and restricted stock awards are to be granted, the timing of such grants, the number of shares subject to any stock option or restricted stock award, the exercise price of any stock option, the periods during which any stock option may be exercised or a restricted stock award shall be subject to restriction and the term of any stock option shall be as hereinafter provided, and the Committee shall have no discretion as to such matters.

SECTION 2  
Shares Available under the Plan

The aggregate number of shares which may be issued and as to which grants of stock options and restricted stock awards may be made under the Plan is 150,000 shares of the Common Stock, without par value, of the Company (the "Common Stock"), subject to adjustment and substitution as set forth in Section 6. If any stock option granted under the Plan is cancelled by mutual consent or terminates or expires for any reason without having been exercised in full, the number of shares subject thereto shall again be available for purposes of the Plan. If shares of Common Stock are forfeited to the Corporation pursuant to the restrictions

applicable to restricted stock, the shares so forfeited shall again be available for purposes of the Plan. The shares which may be issued under the Plan may be either authorized but unissued shares or treasury shares or partly each, as shall be determined from time to time by the Board.

SECTION 3  
Grant of Stock Options and Restricted Stock

On the third business day following the day of each annual meeting of the shareholders of the Company (the "Grant Date"), each person who is then a member of the Board and who is not then an employee of the Company or any of its subsidiaries (a "non-employee Director") shall automatically and without further action by the Board or the Committee be granted:

(1) a "nonstatutory stock option" (i.e., a stock option which does not qualify under Section 422 of the Internal Revenue Code of 1986 (the "Code")) to purchase a number of shares of Common Stock determined by dividing 75% of the amount of the annual Director's retainer then in effect by the Grant Date per share value of the option as determined by the Company under the Black-Scholes option pricing model; and

(2) a number of restricted shares of Common Stock ("restricted stock") determined by dividing 25% of the amount of the annual Director's retainer then in effect by the Fair Market Value of a share of Common Stock on the Grant Date.

The numbers of shares determined under the above formulas shall be rounded to the nearest whole share. If on any Grant Date the number of shares remaining available under the Plan is not sufficient for each non-employee Director to be granted the full number of options and shares of restricted stock provided in this Section, then the available shares shall be allocated among the options and shares of restricted stock to be granted to each non-employee Director in proportion to the amounts determined under the above formulas, disregarding any fractions of a share.

SECTION 4  
Terms and Conditions of Stock Options

Stock options granted under the Plan shall be subject to the following terms and conditions:

(A) The purchase price at which each stock option may be exercised (the "option price") shall be one hundred percent (100%) of the Fair Market Value per share of the Common Stock covered by the stock option on the Grant Date.

(B) The option price for each stock option shall be paid in full upon exercise and shall be payable in cash in United States dollars (including check, bank draft or money order); provided, however, that in lieu of such cash the person exercising the stock option may pay the option price in whole or in part by delivering to the Company shares of the Common Stock having a Fair Market Value on the date of exercise of the stock option equal to the option price for the shares being purchased; except that (i) any portion of the option price representing a fraction of a share shall in any event be paid in cash and (ii) no shares of the Common Stock which have been held for less than one year may be

delivered in payment of the option price of a stock option. The date of exercise of a stock option shall be determined under procedures established by the Committee, and as of the date of exercise the person exercising the stock option shall be considered for all purposes to be the owner of the shares with respect to which the stock option has been exercised. Payment of the option price with shares shall not increase the number of shares of the Common Stock which may be issued under the Plan as provided in Section 2.

(C) No stock option shall be exercisable by a grantee during the first six months of its term except in case of death or Disability. Subject to the terms of Section 4(E) providing for earlier termination of a stock option, no stock option shall be exercisable after the expiration of ten years from the Grant Date. A stock option to the extent exercisable at any time may be exercised in whole or in part.

(D) No stock option shall be transferable by the grantee otherwise than by Will, or if the grantee dies intestate, by the laws of descent and distribution of the state of domicile of the grantee at the time of death. All stock options shall be exercisable during the lifetime of the grantee only by the grantee or the grantee's guardian or legal representative.

(E) Subject to Section 4(C), if a grantee ceases to be a Director of the Company for any reason, any outstanding stock options held by the grantee shall be exercisable and shall terminate according to the following provisions:

(i) If a grantee ceases to be a Director of the Company for any reason other than resignation, removal for cause or death, any then outstanding stock option held by such grantee shall be exercisable by the grantee (whether or not exercisable by the grantee immediately prior to ceasing to be a Director) at any time prior to the expiration date of such stock option or within five years after the date the grantee ceases to be a Director, whichever is the shorter period;

(ii) If during his term of office as a Director a grantee resigns from the Board or is removed from office for cause, any outstanding stock option held by the grantee which is not exercisable by the grantee immediately prior to resignation or removal shall terminate as of the date of resignation or removal, and any outstanding stock option held by the grantee which is exercisable by the grantee immediately prior to resignation or removal shall be exercisable by the grantee at any time prior to the expiration date of such stock option or within 90 days after the date of resignation or removal, whichever is the shorter period;

(iii) Following the death of a grantee during service as a Director of the Company, any outstanding stock option held by the grantee at the time of death (whether or not exercisable by the grantee immediately prior to death) shall be exercisable by the person entitled to do so under the Will of the grantee, or, if the grantee shall fail to make testamentary disposition of the stock option or shall die intestate, by the legal representative of the grantee at any time prior to the expiration date of such stock option or within five years after the date of death, whichever is the shorter period;

(iv) Following the death of a grantee after ceasing to be a Director and during a period when a stock option is exercisable, any outstanding stock option held by the grantee at the time of death shall be exercisable by such person entitled to do so under the Will of the grantee or by such legal representative (but only to the extent the stock option was exercisable by the grantee immediately prior to the death of the grantee) within one year after the date of death or, if applicable, within the period provided in Section 4(E)(i), whichever is the longer period, but not later than the expiration date of such stock option.

A stock option held by a grantee who has ceased to be a Director of the Company shall terminate upon the expiration of the applicable exercise period, if any, specified in this Section 4(E).

(F) All stock options shall be confirmed by an agreement, or an amendment thereto, which shall be executed on behalf of the Company by the Chief Executive Officer (if other than the President), the President or any Vice President and by the grantee.

(G) The obligation of the Company to issue shares of the Common Stock under the Plan shall be subject to (i) the effectiveness of a registration statement under the Securities Act of 1933, as amended, with respect to such shares, if deemed necessary or appropriate by counsel for the Company, (ii) the condition that the shares shall have been listed (or authorized for listing upon official notice of issuance) upon each stock exchange, if any, on which the Common Stock shares may then be listed and (iii) all other applicable laws, regulations, rules and orders which may then be in effect.

Subject to the foregoing provisions of this Section 4 and the other provisions of the Plan, any stock option granted under the Plan may be subject to such restrictions and other terms and conditions, if any, as shall be determined, in its discretion, by the Committee and set forth in the agreement referred to in Section 4(F), or an amendment thereto.

#### SECTION 5 Terms and Conditions of Restricted Stock

Restricted stock awards granted under the Plan shall be subject to the following terms and conditions:

(A) As of the Grant Date of the restricted stock award, certificates representing the shares of restricted stock shall be issued in the name of the Director and held by the Company in escrow until the earlier of the forfeiture of the shares of restricted stock to the Company or the lapse of the service restriction with respect to such shares. The Director shall execute and deliver to the Company a blank stock power in form acceptable to the Company with respect to each of the certificates representing the shares of restricted stock. Such stock power shall be returned to the Director if the service restriction lapses with respect to the shares to which the stock power relates.

(B) The Director shall not sell, exchange, assign, alienate, pledge, hypothecate, encumber, charge, give, transfer or otherwise dispose of, either voluntarily or by operation of law, any shares of restricted stock, or any rights or interests appertaining thereto, prior to the lapse of the service restriction imposed thereon and the issuance or transfer to the Director of certificates with respect to such shares, except that, subject to the provisions of Section 5(F), shares of restricted stock may be transferred by the Director by Will or, if the Director dies intestate, by the laws of descent and distribution of the state of domicile of the Director at the time of death.

(C) As of the Grant Date, the Director shall be a shareholder of the Company with respect to the restricted stock and shall have all the rights of a shareholder with respect to the restricted stock, including the right to vote the restricted stock and to receive all dividends and other distributions paid with respect to such restricted stock, subject to the restrictions of the Plan and the restricted stock agreement, including without limitation the restriction that, with the exception of regular quarterly dividends payable in cash, all dividends and distributions on the restricted stock, whether paid in cash, Common Stock or other securities or property will be held in escrow subject to the same restrictions as the restricted stock.

(D) If the Director's service as a Director of the Company terminates for any reason, other than as a result of the Director's death, Disability or Retirement, prior to the date of the third Annual Meeting of Shareholders of the Company following the Grant Date, then 100% of the shares of restricted stock awarded on the Grant Date shall, upon such termination of service and without any further action, be forfeited to the Company by the Director and cease to be issued and outstanding shares of Common Stock.

If the Director remains a Director of the Company until the date of the third Annual Meeting following the Grant Date and the shares of restricted stock have not been previously forfeited to the Company pursuant to Section 5(E), the service restriction on 100% of the shares of restricted stock originally awarded on that Grant Date shall lapse, and a certificate representing such shares shall be issued or transferred by the Company to the Director. If the Director's service with the Company or a Subsidiary terminates as a result of the Director's death, Disability or Retirement, the service restriction imposed on any shares of restricted stock set forth above which have not been previously forfeited to the Company pursuant to Section 5(E) and on which the service restriction has not previously lapsed shall lapse, and a certificate representing such shares shall be issued or transferred by the Company to the Director (or the Director's personal representative).

(E) Following the lapse of the service restriction on shares of restricted stock and the issuance or transfer of certificates representing such shares (and subject to Section 5(G) hereof), the Director shall not sell, exchange, assign, alienate, pledge, hypothecate, encumber, charge, give, transfer or otherwise dispose of ("transfer"), either voluntarily or by operation of law, any such shares or any rights or interests appertaining thereto and, in the case of death of the Director, the Director's personal representative shall not transfer such shares or any such rights or interests in accordance with the Director's Will, or if the Director dies intestate, with the laws of descent and distribution, without first offering to sell such shares to the Company at a price equal to the Fair

Market Value of the shares on the date of the mailing of the offer by the Director (or the Director's personal representative) to the Company. The Director (or within 90 days of the Director's death, the Director's personal representative) shall offer such shares to the Company for a period of 30 days by giving written notice by certified mail to the Company at its principal executive offices to the attention of its Vice President - Finance. Such offer may be accepted by the Company by delivering written notice of acceptance to the Director (or the Director's personal representative) by certified mail during the 30-day period during which the offer remains open. The date such notice is postmarked shall be deemed the date of acceptance. The purchase of the restricted stock shall be consummated, and payment in full for the shares purchased shall be made, at the principal executive offices of the Company in the United States on such date and at such time as may be reasonably designated by the Company in such written notice delivered to the Director (or the Director's personal representative), but not later than 30 days following the date of such written notice. Upon receipt of the purchase price, the Director (or the Director's personal representative) shall assign, transfer and deliver to the Company the certificates for the purchased restricted stock, duly endorsed, with all necessary stock transfer tax stamps duly affixed, together with any and all of the documents required effectively to transfer such restricted stock. If the Company does not accept the offer of the Director (or the Director's personal representative) within the required period, the Director (or the Director's personal representative) may transfer the restricted stock so offered, and such restricted stock shall no longer be subject to the Company's right of first refusal. If, at the date of death of the Director, the Director has previously offered shares to the Company pursuant to this Section 5(F) and the Company did not accept such offer, the Director's personal representative may transfer such shares without again offering such shares to the Company pursuant to this Section 5(F).

(F) Each certificate representing shares of restricted stock shall have noted on the face of such certificate the following legend:

"Notice is hereby given that the shares of stock represented by this certificate are held subject to, and may not be transferred except in accordance with, the Mine Safety Appliances Company 1990 Non-Employee Directors' Stock Option Plan and a restricted stock agreement executed thereunder, copies of which are on file at the office of Mine Safety Appliances Company."

(G) All restricted stock awards shall be confirmed by an agreement, or an amendment thereto, which shall be executed on behalf of the Company by the Chief Executive Officer (if other than the President), the President or any Vice President and by the grantee.

Subject to the foregoing provisions of this Section 5 and the other provisions of the Plan, any restricted stock award granted under the Plan may be subject to such additional restrictions and other terms and conditions, if any, as shall be determined, in its discretion, by the Committee and set forth in the agreement referred to in Section 5(G), or an amendment thereto.

SECTION 6  
Adjustment and Substitution of Shares

If a dividend or other distribution shall be declared upon the Common Stock payable in shares of the Common Stock, the number of shares of the Common Stock set forth in Section 3, the number of shares of the Common Stock then subject to any outstanding stock options and the number of shares of the Common Stock which may be issued under the Plan but are not then subject to outstanding stock options or restricted stock awards shall be adjusted by adding thereto the number of shares of the Common Stock which would have been distributable thereon if such shares had been outstanding on the date fixed for determining the shareholders entitled to receive such stock dividend or distribution. Shares of Common Stock so distributed with respect to any restricted stock held in escrow shall also be held by the Company in escrow and shall be subject to the same restrictions as are applicable to the shares of restricted stock on which they were distributed.

If the outstanding shares of the Common Stock shall be changed into or exchangeable for a different number or kind of shares of stock or other securities of the Company or another corporation, or cash or other property, whether through reorganization, reclassification, recapitalization, stock split-up, combination of shares, merger or consolidation, then there shall be substituted for each share of the Common Stock set forth in Section 3, for each share of the Common Stock subject to any then outstanding stock option, and for each share of the Common Stock which may be issued under the Plan but which is not then subject to any outstanding stock option or restricted stock award, the number and kind of shares of stock or other securities (and in the case of outstanding options, the cash or other property) into which each outstanding share of the Common Stock shall be so changed or for which each such share shall be exchangeable. Unless otherwise determined by the Committee in its discretion, any such stock or securities, as well as any cash or other property, into or for which any restricted stock held in escrow shall be changed or exchangeable in any such transaction shall also be held by the Company in escrow and shall be subject to the same restrictions as are applicable to the restricted stock in respect of which such stock, securities, cash or other property was issued or distributed.

In case of any adjustment or substitution as provided for in this Section 6, the aggregate option price for all shares subject to each then outstanding stock option prior to such adjustment or substitution shall be the aggregate option price for all shares of stock or other securities (including any fraction) to which such shares shall have been adjusted or which shall have been substituted for such shares. Any new option price per share shall be carried to at least three decimal places with the last decimal place rounded upwards to the nearest whole number.

No adjustment or substitution provided for in this Section 6 shall require the Company to issue or sell a fraction of a share or other security. Accordingly, all fractional shares or other securities which result from any such adjustment or substitution shall be eliminated and not carried forward to any subsequent adjustment or substitution.

#### SECTION 7

##### Effect of the Plan on the Rights of Company and Shareholders

Nothing in the Plan, in any stock option or restricted stock award granted under the Plan, or in any stock option or restricted stock agreement shall confer any right to any person to continue as a Director of the Company or interfere in any way with the rights of the shareholders of the Company or the Board of Directors to elect and remove Directors.

#### SECTION 8

##### Amendment and Termination

The right to amend the Plan at any time and from time to time and the right to terminate the Plan at any time are hereby specifically reserved to the Board; provided always that no such termination shall terminate any outstanding stock options granted under the Plan; and provided further that no amendment of the Plan shall (a) be made without shareholder approval if shareholder approval of the amendment is at the time required for stock options under the Plan to qualify for the exemption from Section 16(b) of the Exchange Act provided by Rule 16b-3 or by the rules of the NASDAQ National Market System or any stock exchange on which the Common Stock may then be listed or (b) otherwise amend the Plan in any manner that would cause stock options or restricted stock awards under the Plan not to qualify for the exemption provided by Rule 16b-3. No amendment or termination of the Plan shall, without the written consent of the holder of a stock option or restricted stock award theretofore awarded under the Plan, adversely affect the rights of such holder with respect thereto.

Notwithstanding anything contained in the preceding paragraph or any other provision of the Plan or any stock option or restricted stock agreement, the Board shall have the power to amend the Plan in any manner deemed necessary or advisable for stock options and restricted stock awards granted under the Plan to qualify for the exemption provided by Rule 16b-3 (or any successor rule relating to exemption from Section 16(b) of the Exchange Act), and any such amendment shall, to the extent deemed necessary or advisable by the Board, be applicable to any outstanding stock options and restricted stock awards theretofore granted under the Plan notwithstanding any contrary provisions contained in any stock option or restricted stock agreement. In the event of any such amendment to the Plan, the holder of any stock option or restricted stock award outstanding under the Plan shall, upon request of the Committee and as a condition to the exercisability of such option or the retention of such restricted stock award, execute a conforming amendment in the form prescribed by the Committee to the stock option agreement or the restricted stock agreement, as the case may be, within such reasonable time as the Committee shall specify in such request.

#### SECTION 9

##### Effective Date and Duration of Plan

The effective date and date of adoption of the Plan shall be December 17, 1990, the date of adoption of the Plan by the Board, provided that on or prior to December 31, 1991 such adoption of the Plan by the Board is approved by the affirmative vote of the holders of at least a majority of the outstanding shares of voting stock of the Company represented in person or by

proxy at a duly called and convened meeting of such holders. Notwithstanding any other provision contained in the Plan, no stock option granted under the Plan may be exercised until after such shareholder approval.

SECTION 10  
Change in Control

Notwithstanding any other provision of the Plan to the contrary, immediately prior to any Change in Control of the Company (as defined in Section 11), all stock options which are then outstanding hereunder shall become fully vested and exercisable, and all restrictions with respect to shares of restricted stock awarded hereunder shall lapse, and such shares shall be fully vested and nonforfeitable. As used in the immediately preceding sentence, "immediately prior" to the Change in Control shall mean sufficiently in advance of the Change in Control to permit the grantee to take all steps reasonably necessary to exercise the option fully and to deal with the shares purchased under the option and the restricted stock released from restriction so that those shares may be treated in the same manner in connection with the Change in Control as the shares of Common Stock of other shareholders.

SECTION 11  
Definitions

In addition to terms defined elsewhere herein, as used in the Plan:

Beneficial Owner shall have the meaning set forth in Rule 13d-3 under the Exchange Act.

A Change in Control shall be deemed to have occurred if the event set forth in any one of the following four paragraphs shall have occurred:

(I) any Person (as defined in this Section 11) is or becomes the Beneficial Owner (as defined in this Section 11), directly or indirectly, of securities of the Company (not including in the securities beneficially owned by such Person any securities acquired directly from the Company or its Affiliates (which term shall have the meaning set forth in Rule 12b-2 promulgated under Section 12 of the Exchange Act, as defined in this Section 11)) representing thirty percent (30%) or more of the combined voting power of the Company's then outstanding securities, excluding any Person who becomes such a Beneficial Owner in connection with a transaction described in clause (I) of paragraph (III) below; or

(II) the following individuals cease for any reason to constitute a majority of the number of Directors then serving: individuals who, on May 5, 1998, constitute the Board and any new Director (other than a Director whose initial assumption of office is in connection with an actual or threatened election contest, including but not limited to a consent solicitation, relating to the election of Directors of the Company) whose appointment or election by the Board or nomination for election by the Company's shareholders was approved or recommended by a vote of at least two-thirds (2/3) of the Directors then still in office who either were Directors on May 5, 1998 or whose

appointment, election or nomination for election was previously so approved or recommended; or

(III) there is consummated a merger or consolidation of the Company or any direct or indirect subsidiary of the Company with any other corporation, other than (I) a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior to such merger or consolidation continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or any parent thereof), in combination with the ownership of any trustee or other fiduciary holding securities under an employee benefit plan of the Company or any subsidiary of the Company, at least fifty-one percent (51%) of the combined voting power of the securities of the Company or such surviving entity or any parent thereof outstanding immediately after such merger or consolidation, or (ii) a merger or consolidation effected to implement a recapitalization of the Company (or similar transaction) in which no Person is or becomes the Beneficial Owner, directly or indirectly, of securities of the Company representing thirty percent (30%) or more of the combined voting power of the Company's then outstanding securities; or

(IV) the shareholders of the Company approve a plan of complete liquidation or dissolution of the Company or there is consummated an agreement for the sale or disposition by the Company of all or substantially all of the Company's assets, other than a sale or disposition by the Company of all or substantially all of the Company's assets to an entity, at least fifty-one percent (51%) of the combined voting power of the voting securities of which are owned by shareholders of the Company in substantially the same proportions as their ownership of the Company immediately prior to such sale.

Notwithstanding the foregoing, a Change in Control shall not be deemed to have occurred by virtue of the consummation of any transaction or series of integrated transactions immediately following which the record holders of the common stock of the Company immediately prior to such transaction or series of transactions continue to have substantially the same proportionate ownership in an entity which owns all or substantially all of the assets of the Company immediately following such transaction or series of transactions.

Disability shall mean that the Director is disabled within the meaning of

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Section 22(e)(3) of the Code. Whether a grantee is so disabled shall be determined, in its discretion, by the Committee, and any such determination by the Committee shall be final and binding.

Exchange Act shall mean the Securities and Exchange Act of 1934, as

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amended from time to time.

Fair Market Value of the Common Stock shall be the mean between the

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following prices, as applicable, for the date as of which Fair Market Value is to be determined as quoted in The Wall Street Journal (or in such other reliable

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publication as the Committee, in its discretion, may determine to rely upon):  
(a) if the Common Stock is listed on the New York Stock Exchange, the highest and lowest sales prices per share of the Common Stock as quoted in the NYSE-Composite Transactions listing for such date, (b) if the Common Stock is not listed on such exchange, the highest and lowest sales prices per share of Common Stock for such date on

(or on any composite index including) the principal United States securities exchange registered under the Exchange Act on which the Common Stock is listed, or (c) if the Common Stock is not listed on any such exchange, the highest and lowest sales prices per share of the Common Stock for such date on the National Association of Securities Dealers Automated Quotations System or any successor system then in use ("NASDAQ"). If there are no such sale price quotations for the date as of which Fair Market Value is to be determined but there are such sale price quotations within a reasonable period both before and after such date, then Fair Market Value shall be determined by taking a weighted average of the means between the highest and lowest sales prices per share of the Common Stock as so quoted on the nearest date before and the nearest date after the date as of which Fair Market Value is to be determined. The average should be weighted inversely by the respective numbers of trading days between the selling dates and the date as of which Fair Market Value is to be determined. If there are no such sale price quotations on or within a reasonable period both before and after the date as of which Fair Market Value is to be determined, then Fair Market Value of the Common Stock shall be the mean between the bona fide bid and asked prices per share of Common Stock as so quoted for such date on NASDAQ, or if none, the weighted average of the means between such bona fide bid and asked prices on the nearest trading date before and the nearest trading date after the date as of which Fair Market Value is to be determined, if both such dates are within a reasonable period. The average is to be determined in the manner described above in this paragraph. If the Fair Market Value of the Common Stock cannot be determined on the basis previously set forth in this paragraph for the date as of which Fair Market Value is to be determined, the Committee shall in good faith determine the Fair Market Value of the Common Stock on such date. Fair Market Value shall be determined without regard to any restriction other than a restriction which, by its terms, will never lapse.

Person shall have the meaning given in Section 3(a)(9) of the Exchange

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Act, as modified and used in Sections 13(d) and 14(d) thereof, except that such term shall not include (I) the Company or any of its subsidiaries, (ii) a trustee or other fiduciary holding securities under an employee benefit plan of the Company or any of its Affiliates, (iii) an underwriter temporarily holding securities pursuant to an offering of such securities, or (iv) a corporation owned, directly or indirectly, by the shareholders of the Company in substantially the same proportions as their ownership of stock of the Company, or (v) any individual or entity [including the trustees (in such capacity) of any such entity which is a trust] which is, directly or indirectly, the Beneficial Owner of securities of the Company representing five percent (5%) or more of the combined voting power of the Company's then outstanding securities immediately before the date hereof or any Affiliate of any such individual or entity, including, for purposes of this Plan, any of the following: (A) any trust (including the trustees thereof in such capacity) established by or for the benefit of any such individual; (B) any charitable foundation (whether a trust or a corporation, including the trustees or directors thereof in such capacity) established by any such individual; (C) any spouse of any such individual; (D) the ancestors (and spouses) and lineal descendants (and spouses) of such individual and such spouse; (E) the brothers and sisters (whether by the whole or half blood or by adoption) of either such individual or such spouse; or (F) the lineal descendants (and their spouses) of such brothers and sisters.

Retirement shall mean a termination of a Director's service on the Board

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on or after the date that (1) the Director has completed least 5 years of service as a Director and (2) the Director's combined age and service as a Director satisfy the "Rule of 75." The "Rule of 75"

shall be satisfied when the sum of the Director's age (measured in full and partial years, in increments of one-twelfth (1/12) year) and the Director's years of service as a Director (measured in full and partial years, in increments of one-twelfth (1/12) year) equals or exceeds 75.

MINE SAFETY APPLIANCES COMPANY  
EXECUTIVE INSURANCE PROGRAM  
As Amended and Restated January 1, 2001

Section 1 - Purpose  
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The purpose of the Executive Insurance Program ("EIP" or "Plan") is to enable Mine Safety Appliances Company (the "Company") to assist certain of the Company's senior management employees in providing life insurance benefits for their families and dependents during their working career with the Company and to provide them with additional flexibility and post-employment benefits upon their retirement from active employment with the Company. This result is to be accomplished by substituting, for each eligible employee, all but \$50,000 of group term life insurance with individual life insurance. All of the premium cost will be paid by the Company.

Section 2 - Definitions  
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The following definitions shall apply for purposes of the Plan unless another meaning is clearly required by the context.

"Beneficial Owner" shall have the meaning set forth in Rule 13d-3 under the Exchange Act.

"Beneficiary" shall mean any person, persons or entity who or which may be designated by a Participant as the recipient of any benefits to which the same may be entitled under the terms of the Plan upon the death of the Participant.

"Board" shall mean the Board of Directors of the Company as it may be constituted from time to time.

"Company" shall mean Mine Safety Appliances Company, including any subsidiaries or affiliates, or any successor thereto, except that in the definitions provided in this Section 2 of Change in Control and of Person, "Company" shall mean only the Mine Safety Appliances Company.

"Change in Control" shall be deemed to have occurred if the event set forth in any one of the following paragraphs shall have occurred:

(I) any Person is or becomes the Beneficial Owner, directly or indirectly, of securities of the Company (not including in the securities beneficially owned by such Person any securities acquired directly from the Company or its Affiliates (which term shall have the meaning set forth in Rule 12b-2 promulgated under Section 12 of the Exchange Act)) representing thirty percent (30%) or more of the combined voting power of the Company's then outstanding securities, excluding

any Person who becomes such a Beneficial Owner in connection with a transaction described in clause (i) of paragraph (III) below; or

(II) the following individuals cease for any reason to constitute a majority of the number of directors then serving: individuals who, on January 1, 2001, constitute the Board and any new director (other than a director whose initial assumption of office is in connection with an actual or threatened election contest, including but not limited to a consent solicitation, relating to the election of directors of the Company) whose appointment or election by the Board or nomination for election by the Company's shareholders was approved or recommended by a vote of at least two-thirds (2/3) of the directors then still in office who either were directors on January 1, 2001 or whose appointment, election or nomination for election was previously so approved or recommended; or

(III) there is consummated a merger or consolidation of the Company or any direct or indirect subsidiary of the Company with any other corporation, other than (i) a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior to such merger or consolidation continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or any parent thereof), in combination with the ownership of any trustee or other fiduciary holding securities under an employee benefit plan of the Company or any subsidiary of the Company, at least fifty-one percent (51%) of the combined voting power of the securities of the Company or such surviving entity or any parent thereof outstanding immediately after such merger or consolidation, or (ii) a merger or consolidation effected to implement a recapitalization of the Company (or similar transaction) in which no Person is or becomes the Beneficial Owner, directly or indirectly, of securities of the Company representing thirty percent (30%) or more of the combined voting power of the Company's then outstanding securities; or

(IV) the shareholders of the Company approve a plan of complete liquidation or dissolution of the Company or there is consummated an agreement for the sale or disposition by the Company of all or substantially all of the Company's assets, other than a sale or disposition by the Company of all or substantially all of the Company's assets to an entity, at least fifty-one percent (51%) of the combined voting power of the voting securities of which are owned by shareholders of the Company in substantially the same proportions as their ownership of the Company immediately prior to such sale.

Notwithstanding the foregoing, a Change in Control shall not be deemed to have occurred by virtue of the consummation of any transaction or series of integrated transactions immediately following which the record holders of the common stock of the Company immediately prior to such transaction or series of transactions continue to have substantially the same proportionate ownership in an entity which owns all or substantially all of the assets of the Company immediately following such transaction or series of transactions.

"Death Benefit" shall mean the gross amount payable by an Insurer under the  
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terms of a policy issued hereunder upon the death of a Participant. A portion  
of the Death Benefit, referred to as the "Insurance Amount" (as listed in the  
"Table of Insurance Amounts" attached hereto), will be paid to the Participant's  
Beneficiaries and the balance paid to the Company.

"Exchange Act" shall mean the Securities Exchange Act of 1934, as amended  
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from time to time.

"Insurer" shall mean the Connecticut Mutual Life Insurance Company and/or  
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any other insurance carrier selected by the Company to issue Policies hereunder  
and which is authorized to do business in the Commonwealth of Pennsylvania.

"Participant" shall mean any member of senior management of the Company  
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authorized by the Board to participate in the Plan.

"Person" shall have the meaning given in Section 3(a)(9) of the Exchange  
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Act, as modified and used in Sections 13(d) and 14(d) thereof, except that such  
term shall not include (i) the Company or any of its subsidiaries, (ii) a  
trustee or other fiduciary holding securities under an employee benefit plan of  
the Company or any of its Affiliates, (iii) an underwriter temporarily holding  
securities pursuant to an offering of such securities, or (iv) a corporation  
owned, directly or indirectly, by the shareholders of the Company in  
substantially the same proportions as their ownership of stock of the Company,  
or (v) any individual or entity [including the trustees (in such capacity) of  
any such entity which is a trust] which is, directly or indirectly, the  
Beneficial Owner of securities of the Company representing five percent (5%) or  
more of the combined voting power of the Company's then outstanding securities  
immediately before the date hereof or any Affiliate of any such individual or  
entity, including, for purposes of this Plan, any of the following: (A) any  
trust (including the trustees thereof in such capacity) established by or for  
the benefit of any such individual; (B) any charitable foundation (whether a  
trust or a corporation, including the trustees or directors thereof in such  
capacity) established by any such individual; (C) any spouse of any such  
individual; (D) the ancestors (and spouses) and lineal descendants (and spouses)  
of such individual and such spouse; (E) the brothers and sisters (whether by the  
whole or half blood or by adoption) of either such individual or such spouse; or  
(F) the lineal descendants (and their spouses) of such brothers and sisters.

"Plan" shall mean the Executive Insurance Program described herein.  
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"Policy" shall mean an insurance contract issued by an Insurer on the life  
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of a Participant.

"Retired Participant" shall mean a Participant who has terminated his  
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active employment as an employee of the Company on or after a date when his  
combined age and service satisfy the "Rule of 70" as follows: the sum of the  
Participant's age (measured in full and partial years, in increments of one-  
twelfth (1/12) year) and the Participant's years of employment with the Company  
(measured in full and partial years, in increments of one-twelfth (1/12) year)  
equals or exceeds 70.

Section 3 - Eligibility  
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Those members of management who are eligible to participate in the Executive Insurance Program shall be the Chief Executive Officer of the Company and such other key members of senior management as shall be designated from time to time by the Chief Executive Officer of the Company and approved for participation by the Board of Directors.

Section 4 - Amount and Effective Date of Coverage  
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The initial amount of life insurance coverage provided under the Plan to those selected for participation as of the effective date of the Plan shall be as described in the "Table of Insurance Amounts" attached hereto. The amount of life insurance provided to executives who are selected for participation after the effective date of the Plan shall be in an amount determined by the Chief Executive Officer and approved by the Board at the time of their selection.

The effective date of insurance coverage hereunder shall be the later of the date of the employee's selection for participation herein or acceptance by the Insurer as a standard risk. The cancellation of a Participant's group term life insurance in excess of \$50,000, and his actual participation in this Plan shall be conditioned upon his insurability in a standard risk category for the benefit to be provided herein or, if not insurable in a standard risk category, the acceptance by the Company of the non-standard risk category proposed by the Insurer.

The Board reserves the right to change the amount of insurance on the life of any Participant from time to time, and any such change in the level of insurance shall be effective as of the later of the first day of the month coincident with or next following the effective date of the change or the date of acceptance by the Insurer of the new insurance amount at standard rates, or acceptance by the Company of an offer of insurance made by the Insurer at non-standard rates; provided, however, that, from and after the first date on which the combined age and service of any Participant (whether a Retired Participant or an active Participant) satisfy the Rule of 70 (as the satisfaction of such Rule is described in the definition of Retired Participant which appears in Section 2 hereof) or will have satisfied the Rule of 70 upon an assumed immediate termination of employment (as the requirements for satisfaction of such Rule may have been modified by any written Severance Agreement between the Company and such Participant), the amount of insurance on the life of such Participant (sometimes referred to in this Plan as the "Insurance Amount") cannot be decreased.

Section 5 - Payment for Coverage  
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The cost of the applicable amount of life insurance on the life of the Participant shall be paid when due by the Company. The Company shall annually furnish each Participant with a statement of imputed income reportable by the Participant for income tax purposes as a result of the payment.

Section 6 - Payment of Proceeds Upon Death While Employed  
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In the event of the death of the Participant while employed by the Company, the gross death benefit payable under the Policy shall be split between the Company and the Participant's Beneficiary. The Beneficiary shall receive an amount equal to the Insurance Amount and the Company shall receive the difference between the gross Death Benefit and the Insurance Amount. The amounts payable to the Company and the Beneficiary shall be paid directly to each payee by the Insurer directly from the Insurer.

Section 7 - Options Upon Retirement of a Participant  
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Subject to Section 8 hereof, at any time prior to the year in which a Participant becomes a Retired Participant, he shall have the right to make an irrevocable election in writing of one of the following three options with respect to his Insurance Amount. If a Participant shall fail to make such an election, he shall be deemed to have elected the supplemental retirement benefit payments described in this Section 7 as Option 3.

(1) Maintain the Existing Arrangement. Under this option the Executive  
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Insurance Program would remain as it existed prior to the Participant's retirement. For federal income tax purposes, a Retired Participant will be deemed to have received imputed income, but the Death Benefit received by the Participant's Beneficiary will not be subject to federal income tax.

(2) Company-Paid Post-Retirement Death Benefit. Alternatively, the  
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Participant can elect not to continue the Executive Insurance Program, but in lieu thereof, can elect a non-insured post-retirement death benefit equal to the Insurance Amount in effect at the date of the Participant's retirement. Under this Option there is no imputed income for tax purposes to the Retired Participant but the Death Benefit paid to the Participant's Beneficiary by the Company will be subject to federal income tax when received.

(3) Supplemental Retirement Benefits. Rather than a continuation of the  
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Death Benefit described in either Option 1 or Option 2 above, a Participant can elect to receive a series of supplemental retirement payments which, in the aggregate, equal three-quarters (75%) of the pre-retirement Insurance Amount except that for a Participant who will receive supplemental retirement benefits under this Section 7(3) for the first time on or after January 1, 2001, such Participant can elect to receive a series of supplemental retirement payments which, in the aggregate, equal one hundred (100%) percent of the pre-retirement Insurance Amount. Payment of the supplemental retirement benefits shall be made in a series of approximately equal semi-monthly payments over a period of 15 years. Payment of such semi-monthly payments to the Retired Participant shall commence no later than sixty days after the Retired Participant's termination of employment with the Company.

The Supplemental Retirement Benefit Option may be elected by a Participant at any time on or after August 1, 1991. It shall be available to any Participant who retires on or after that date as well as to any previously Retired Participant who had previously elected either Option 1 or Option 2. If the supplemental retirement payments of Option 3 are elected, and in the event of

the death of the Retired Participant prior to the completion of the 15-year payment period, the then unpaid installments shall continue to be paid to the Retired Participant's Beneficiary or, at the discretion of the Board, may be commuted and paid to such Beneficiary in a single sum as soon as may be practicable after the Board's decision to make such a single sum payment.

Section 8 - Effect of a Change in Control  
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Notwithstanding any other provision of this Plan, if a Participant's termination of employment occurs on, or within the three-year period immediately following, a Change in Control and the Participant thereupon becomes a Retired Participant within the meaning of Section 2 hereof (the determination of such Retired Participant status taking into account any relevant provision in any written Severance Agreement the Participant may have with the Company), then, not later than the fifth (5th) business day following such termination, the Company shall pay the Retired Participant a lump sum amount equal to the present value of the series of supplemental retirement payments described as Option 3 in Section 7 hereof to which the Retired Participant would otherwise be entitled if the Retired Participant had elected Option 3. The Company's payment of such lump sum shall be in lieu of making payment to the Retired Participant in accordance with any option described in Section 7 hereof. For purposes of this Section 8, such present value shall be determined using a discount rate equal to 120% of the applicable rate provided in section 1274(b)(2)(B) of the Internal Revenue Code of 1986, as amended from time to time.

Section 9 - Administration, Amendment, Termination  
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The Board, or its delegate, shall be the "Administrator" of this Plan, and shall have full power and authority to interpret, construe and administer the same. Any such interpretation and construction shall be final and binding upon any and all parties in interest. In addition, the Board shall have the right to amend this Plan from time to time, and to terminate it at any time.. Notwithstanding the foregoing provisions of this Section 9, no amendment or termination of this Plan by the Board and no act (or failure to act) by the Board (or its delegate) as Administrator shall affect detrimentally the rights under the Plan of any Retired Participant or of any active Participant whose combined age and service have satisfied the Rule of 70 (as the satisfaction of such Rule is described in the definition of Retired Participant which appears in Section 2 hereof) or will have satisfied the Rule of 70 upon an assumed immediate termination of employment (as the requirements for satisfaction of such Rule may have been modified by any written Severance Agreement between the Company and such Participant).

Section 10 - Miscellaneous Matters  
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(a) No Right to Assets. No Participant, Beneficiary or other person or  
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entity claiming entitlement to any benefit from or through such person shall have any right to or title in any policy or any other asset obtained by the Company for the purpose of funding the benefits provided hereunder except as otherwise expressly provided herein.

(b) Alienation. Except with respect to the designation of a

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Beneficiary to be the recipient of any death benefits hereunder, or the assignment of the incidents of ownership of any death benefits hereunder, the interest of Participants and their Beneficiaries under the Plan are not in any way subject to their debts or other obligations and may not be voluntarily or involuntarily sold, transferred, assigned, alienated or encumbered, and any attempt to do so shall be void

(c) Construction. The Plan shall be construed and administered

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according to the laws of the Commonwealth of Pennsylvania and any federal laws which may from time to time be applicable. Whenever any words are used herein in the masculine gender, they shall be construed as though they were also used in the feminine gender in all cases where they would apply, and whenever any words are used in the singular form, they shall be construed as though they were also used in the plural form in all cases where they would so apply. Headings of Sections of this instrument are inserted for convenience of reference only and as such they constitute no part of this Plan and are not to be considered in the construction hereof.

(d) Limitation of Benefit. All benefits hereunder except those

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described in Section 8 and Options 2 and 3 of Section 7 shall be payable solely by the Insurer(s) under the Policies issued hereunder, and the Company does not assume any liability or responsibility therefor or guarantee such benefits. The liability and responsibility of the Company are strictly limited to the provisions of this Plan.

TABLE OF INSURANCE AMOUNTS  
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Title -----	Amount -----
Chairman	\$1,000,000
President	\$ 750,000
Vice President	\$ 600,000
Executive	\$ 300,000

## Management's Discussion and Analysis

## Forward-looking Statements

This report contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Such forward-looking statements may include, without limitation, statements regarding expectations for future product introductions, cost reduction and restructuring plans, liquidity, sales and earnings, and market risk. Actual results may differ from expectations contained in such forward-looking statements and can be affected by any number of factors, many of which are outside of management's direct control. Among the factors that could cause such differences are the effects of cost reduction efforts, new product introductions, market and operating conditions affecting specialty chemical customers, availability of critical materials and components, the economic environment, and interest and currency exchange rates.

## Results of Operations

Corporate initiatives - During the past year, MSA made significant progress in improving its competitive position and profitability through new product introductions, targeted acquisitions in focused product and geographic markets, and continuing cost reduction programs. These efforts are expected to continue in 2001 and beyond.

In 2000, MSA strengthened its product offerings and commitment to the fire service market in two important ways - the introduction of the Evolution line of Thermal Imaging Cameras and the addition of CairnsHelmets, the most respected and established line of firefighter head protection. Since the mid-nineties, MSA has recognized the dramatic market potential of thermal imaging camera technology in protecting lives and assisting firefighters in the line of duty. During the first quarter of 2000, the company's commitment to the practical application of this technology was demonstrated by the acquisition of ISI Group, Inc. (ISIG), an established manufacturer of infrared cameras, and the mid-year introduction of the MSA-designed and manufactured Evolution line of cameras. In August, MSA acquired CairnsHelmets of Clifton, New Jersey, the best known and respected supplier of firefighter head protection in North America.

On February 2, 2001, MSA acquired Surety Manufacturing and Testing, Ltd. in Canada. Surety is a leading provider of fall protection equipment and rescue systems to railway, construction, and utility markets. The acquisition complements the existing line of MSA Rose fall protection products and services. In addition, the Surety line of rescue and retrieval systems further enhances MSA product offerings to the fire service market.

Current year results in North America benefited from workforce reduction and voluntary retirement incentive programs that were completed in 1999. Further activities are underway in 2001 to more closely integrate the company's sales and marketing strategy throughout North America and to streamline operations, particularly in Canada. The company remains committed to the previously-announced plan to consolidate office space in Pittsburgh as a means of further reducing operating costs and improving communications and productivity.

In Europe, the company is making organizational changes that are expected to dramatically improve profitability by reducing operating costs, improving manufacturing efficiencies, and providing an integrated marketing and distribution approach. Significant European reorganization efforts include centralized customer service, product line management, and inventory planning and control. Country-specific reorganization is also underway in Britain and Germany, including workforce reductions and sale of excess facilities.

In South Africa, the company completed its reorganization and facilities consolidation plan following the 1999 acquisition of Campbell Gardwel, a South African maker of personal protective equipment. MSA is now positioned as the largest safety products supplier on the African continent, with strength in both mining and industrial markets.

During the year a dedicated team made significant progress in advancing the company's e-business capabilities. Initial applications that facilitate business relationships with the company's North American distributor/partners are expected to be operational in the first half of 2001, including an on-line catalog and internet-enabled inventory, order, and account status query capabilities.

Supply-chain management presents MSA with major opportunities for improving inventory management, manufacturing efficiencies, and customer service. In 2000, the company established a team that is focused on improving all aspects of supply chain management.

2000 versus 1999 - Sales for 2000 were \$500.4 million, an increase of \$2.5 million, or less than 1%, from \$497.9 million in 1999. Local currency sales growth of 5% was partially offset by negative exchange rate movements when stated in U.S. dollars.

Sales by North American operations were \$327.8 million in 2000, an increase of \$12.7 million, or 4%, from \$315.1 million in 1999. Higher sales in 2000 reflect new product offerings and strong shipments of core safety products to the fire service, industrial and construction markets. Shipments of self-contained breathing apparatus for firefighters, gas masks for defense preparedness, and helmets for industrial and construction worker head-protection all improved significantly during the year. Sales were also strengthened by the third quarter 2000 introductions of the Evolution series of thermal imaging cameras and the CairnsHelmets line of firefighter head protection. The company expects continued sales growth with the inclusion of a full year of sales for these products in 2001. Portable instrument sales were also higher in 2000, reflecting the late-1999 introduction of the improved Passport FiveStar Alarm

multigas detector. Specialty chemical sales in 2000 were 8% lower than in the prior year, but rebounded sharply in the fourth quarter. Short-term specialty chemical sales levels are highly dependent on the performance of a limited number of large pharmaceutical and chemical company customers. The company believes that lower specialty chemical sales in the second half of 1999 and the first three quarters of 2000 were largely due to a number of special situations with individual customer's drug development, production and marketing activities. Continued recovery in specialty chemical sales is expected in 2001.

Sales by European operations were \$99.1 million in 2000, a decrease of \$14.3 million, or 13%, from \$113.4 million in 1999. However, in local currency, sales in Europe were flat year-to-year. Sales growth in Eastern European markets was offset by mixed, but somewhat lower sales in Western European affiliates.

Sales by MSA's other international operations were \$73.2 million in 2000 compared to \$68.0 million in 1999, an increase of \$5.2 million, or 8%. A 14% improvement in local currency sales was partially offset by unfavorable currency translation effects when stated in U.S. dollars. Sales growth in South America was particularly strong on improved economic conditions in the region. Notable growth also occurred in Africa and China reflecting expanding operations in those areas.

Gross profit for 2000 was \$187.1 million, an increase of \$7.4 million, or 4%, from \$179.7 million in 1999. An increase in the ratio of gross profit to sales to 37.4% in 2000 from 36.1% in 1999 is the primary reason for higher gross profit in 2000. Higher sales accounts for approximately \$1.0 million of the gross profit improvement.

Research and development expenses were largely unchanged in 2000 at \$17.2 million, compared to \$17.1 million in 1999. These expenses relate primarily to safety and health equipment research and development activities in the U.S. and Germany.

Depreciation, selling and administrative expenses decreased \$3.8 million to \$149.0 million in 2000, and decreased as a percent of sales to 29.8% in 2000 compared to 30.7% in 1999. The decrease follows a similar decrease in 1999 and is the result of cost saving restructuring initiatives in North America and Europe. Depreciation, selling and administrative expenses at other international operations were slightly higher than in 1999.

Cost of products sold and selling, general and administrative expenses include net periodic pension benefit costs and credits. As described in note 12, pension credits, combined with pension costs, resulted in net pension credits of \$14.9 million in 2000 and \$10.2 million in 1999. Net pension credits in 2000 included credits of \$2.4 million for settlement and curtailment gains in Canada and Britain. In 1999 net pension credits included a net gain of \$2.8 million resulting from the termination benefit costs and settlement gains associated with a voluntary retirement incentive program in the U.S. Future net pension credits can be volatile depending on the future market performance of plan assets, changes in actuarial assumptions regarding discount rates and return on plan assets, changes in the amortization levels of actuarial gains and losses, plan amendments affecting benefit payout levels, and profile changes in the participant populations. Changes in any of these factors could cause net pension credits to change. To the extent net pension credits decline in the future, income would be adversely affected.

Interest expense in 2000 was \$4.5 million compared to \$4.3 million in 1999.

Currency exchange gains were \$444,000 in 2000 compared to \$694,000 in 1999. The most significant gains from currency valuation changes in 2000 occurred in North America.

Restructuring charges in 2000 were \$2.4 million compared to \$4.0 million in 1999. The charges in 2000 relate primarily to severance and early retirement costs associated with workforce reductions in Britain, Germany and Canada. The 1999 charges were principally for severance costs in Germany.

Other income, for which further information is included in note 4, was \$2.5 million in 2000 compared to \$3.8 million in 1999. Other income in 2000 included a discount of \$2.7 million on the sale of trade accounts receivable under the securitization agreement, which is more fully-described in note 15. Because the accounts receivable securitization arrangement commenced in November 1999, the comparable loss in the prior year was only \$300,000.

The effective income tax rate, for which further information is included in note 8, was 31.8% in 2000 and 29.6% in 1999. The effective rate in both years was lower than the U.S. statutory income tax rate primarily due to operating losses in Germany and adjustments to prior years' taxes in the U.S., mainly due to foreign sales corporation tax benefits.

As further described in note 16, during 1999 the company changed the reporting periods of a number of international affiliates, including Germany which is the company's largest international affiliate. The effect of this change, which represents the after-tax results of these affiliates for December 1999, is reported as a change in accounting principle. The December 1999 net loss included severance costs related to ongoing workforce reductions in Germany.

Net income for 2000 was \$23.2 million, an increase of \$8.1 million, or 54%, over 1999 net income of \$15.1 million. Basic earnings per share of common stock improved to \$1.89 in 2000 compared to \$1.16 in 1999. Earnings per share benefited from net treasury share repurchases that reduced average shares outstanding by 5% in 2000.

1999 versus 1998 - Sales for 1999 were \$497.9 million, a decrease of \$2.3 million, or less than 1%, from \$500.2 million in 1998. Sales in 1998 included the HAZCO Services, Inc. and Baseline Industries, Inc. business units until they were divested on June 30, 1998. Sales of ongoing operations improved \$19.3 million in 1999, but were partially offset by the negative currency translation effect of the strong U.S. dollar on international affiliate sales.

Sales by North American operations were \$315.1 million in 1999, an increase of \$3.6 million, or 1%, from \$311.5 million in 1998. North American sales in 1998 included HAZCO Services, Inc. and Baseline Industries, Inc., through mid-year. The divestitures resulted in approximately \$13.6 million less sales in 1999 compared to 1998. The improvement in North American sales from ongoing businesses reflected strong growth in safety products sales, partially offset by lower shipments of specialty chemicals. Sales of self-contained breathing apparatus and thermal imaging cameras to fire service markets in the U.S. and Canada were particularly strong in 1999. Lower specialty chemical sales

in 1999 reflect a number of special situations with individual customers during the second half of the year.

Sales by European operations, stated in U.S. dollars, were \$113.4 million in 1999, a decrease of \$8.0 million, or 7%, from \$121.4 million in 1998. The decrease reflects a slight decline in local currency sales and negative currency translation effects when stated in U.S. dollars. Flat or somewhat improved local currency sales in most European countries were partially offset by lower sales in Britain.

Sales by MSA's other international operations were \$68.0 million in 1999 compared to \$64.1 million in 1998, an increase of \$3.9 million, or 6%. Significant improvements in local currency sales in most countries were partially offset by unfavorable currency translation effects when stated in U.S. dollars. Local currency sales increased in 1999 at most operations, but were

## Management's Discussion and Analysis

particularly strong in Africa, which benefited from the second quarter acquisition of Campbell Gardwel. Sales in South America were somewhat lower in 1999 due to continuing economic difficulties in Peru and Chile.

Gross profit for 1999 was \$179.7 million, a decrease of \$4.7 million, or 3%, from \$184.4 million in 1998. Approximately \$1.0 million of the decrease was volume related. The remainder of the decrease in gross profit dollars was due to a small decline in the ratio of gross profit to sales to 36.1% in 1999 compared to 36.9% in 1998.

Research and development expenses were largely unchanged in 1999 at \$17.1 million, compared to \$17.4 million in 1998. These expenses relate primarily to safety and health equipment research and development activities in the U.S. and Germany.

Depreciation, selling and administrative expenses decreased \$4.9 million to \$152.8 million in 1999 compared to \$157.7 million in 1998, and decreased as a percent of sales to 30.7% in 1999 compared to 31.5% in 1998. The decrease reflects cost savings resulting from restructuring initiatives in the U.S. and the mid-1998 divestitures of HAZCO Services, Inc. and Baseline Industries, Inc. Depreciation, selling and administrative expenses at international operations were slightly higher than in 1998.

Cost of products sold and selling, general and administrative expenses include net periodic pension benefit costs and credits. As described in note 12, pension credits, combined with pension costs, resulted in net pension credits of \$10.2 million in 1999 and \$10.3 million in 1998. Net pension credits in 1999 and 1998 included settlement gains, net of termination benefit costs, of \$2.8 million and \$4.0 million, respectively.

Currency exchange gains were \$694,000 in 1999, compared to losses of \$315,000 in 1998. The most significant gains from currency valuation changes in 1999 occurred in Latin America.

Restructuring charges in 1999 were \$4.0 million compared to \$1.0 million in 1998. The charges in both years relate primarily to severance and early retirement costs associated with workforce reductions in Germany.

Other income, for which further information is included in note 4, was \$3.8 million in 1999 compared to \$6.0 million in 1998. Other income for 1999 included pre-tax gains of \$2.2 million on sales of real estate. Other income for 1998 included \$2.8 million pre-tax gains related to the divestitures of the HAZCO Services, Inc. and Baseline Industries, Inc. affiliates. The operating results of these two affiliates were not material to the consolidated financial statements during the year ended December 31, 1998.

The effective income tax rate, for which further information is included in note 8, was 29.6% in 1999 and 35.2% in 1998. The lower effective rate in 1999 reflects tax benefits on international operating losses, primarily in Germany, and adjustments to prior years' taxes in the U.S., mainly due to foreign sales corporation tax benefits.

As further described in note 16, during 1999 the company changed the reporting periods of a number of international affiliates, including Germany which is the company's largest affiliate. The change in reporting period reduced 1999 net income by \$1.2 million and earnings per share of common stock by \$0.09, representing the after-tax results of the affected affiliates for the one month period ended December 31, 1999. This net loss included severance costs related to ongoing workforce reductions in Germany combined with the results of low December operating activity in the units affected.

Net income for 1999 was \$15.1 million compared to \$18.3 million in 1998. Basic earnings per share of common stock declined in 1999 to \$1.16, compared to \$1.37 in 1998. Earnings per share benefited from share repurchases that reduced average shares outstanding by 2% in 1999.

## Liquidity and Financial Condition

Cash and cash equivalents increased \$9.4 million during 2000, compared to a decrease of \$6.9 million in 1999. The company's principal source of financing capital expenditures and internal growth is cash flow from operations. Operations provided cash of \$52.3 million in 2000 compared to providing \$39.4 million in 1999. The most significant reasons for improved operating cash flow were higher earnings and reduced inventories. Cash provided by operations in 1999 was \$18.7 million higher than in 1998.

Investing activities used cash of \$46.2 million in 2000 compared to \$29.6 million in 1999. The increased use of cash for investing activities in 2000 was for the acquisitions of CairnsHelmets and ISI Group, Inc. In 1999 acquisitions and other investing included \$2.6 million related to the acquisition of Campbell Gardwel in South Africa and \$2.7 million for development costs at the Cranberry Woods office park. Cash flow for investing activities in 1998 benefited from net proceeds of \$22.9 million received on the sales of HAZCO Services, Inc. and Baseline Industries, Inc. Capital expenditures totaled \$19.4 million in 2000, \$26.2 million in 1999, and \$34.3 million in 1998. Both 1999 and 1998 included increased expenditures for information systems and manufacturing facility improvements associated with U.S. restructuring activities. In the past five years, approximately \$137 million has been spent on new facilities, equipment, and information systems.

Financing activities provided cash of \$4.1 million in 2000 compared to using \$15.4 million in 1999. During 2000 the company issued \$40 million of private placement debt to finance acquisitions and common stock repurchases. The additional use of cash in 1999 reflects reductions in short-term borrowings during the year. Dividends paid on common stock during 2000 (the 83rd

consecutive year of dividend payment) were 47 cents per share, up from 44 cents per share in both 1999 and 1998. Cash dividends are paid at a conservative percentage of income. During 2000 the company repurchased 2.2 million shares of common stock, including 2.1 million shares from the family of a co-founder, for \$54.9 million. Approximately 1.1 million shares of common stock held in treasury were sold to the MSA pension plan in 2000 for \$27.0 million. As of December 31, 2000, an additional 89,705 shares may be repurchased under current authorizations.

Short term debt decreased \$2.7 million during 2000 to \$1.3 million. The average amount of short term debt outstanding during 2000 and 1999 was \$5.6 million and \$38.9 million, respectively. Credit available at year-end with financial institutions was the U.S. dollar equivalent of \$21.4 million, of which \$19.6 million was unused.

Long-term debt, including the current portion, increased \$40.2 million during 2000 to \$77.1 million, or 25.4% of total capital. Total capital is defined as long-term debt plus the current

portion of long-term debt and shareholders' equity. The increase is due to the issuance of \$40 million in fixed rate senior notes payable in installments through 2012. Proceeds of the notes were used for acquisitions and common stock repurchases.

Trade receivables decreased \$11.8 million to \$47.1 million at December 31, 2000. As more fully described in note 15, the decrease reflects the sale of accounts receivable under the securitization facility. Trade receivables expressed in number of days' sales outstanding was 34 days at December 31, 2000, compared to 43 days at the end of 1999. Other receivables were \$30.5 million at December 31, 2000 and \$22.7 million at December 31, 1999, representing the company's retained interest in securitized receivables. Inventories decreased \$9.4 million to \$72.7 million at December 31, 2000. Inventory measured against sales turned 6.9 times in 2000 and 6.1 times in 1999. The working capital ratio was 2.3 to 1 at the end of 2000 and 2.5 to 1 at the end of 1999.

The company's financial position remains strong and is expected to provide adequate capital resources for operations, capital expansion and dividends to shareholders.

#### Cumulative Translation Adjustments

The year-end position of the U.S. dollar relative to international currencies resulted in translation losses of \$5.9 million being charged to the cumulative translation adjustments shareholders' equity account in 2000, compared to losses of \$5.1 million in 1999 and \$3.6 million in 1998. Translation losses in 2000 occurred primarily in Australia, South Africa, Britain, Canada, and Germany. Translation losses in 1999 occurred primarily in Brazil, Germany and Italy. Significant 1998 translation losses occurred in Germany, Canada and Australia.

#### Financial Instrument Market Risk

Market risk represents the risk of adverse changes in the value of a financial instrument caused by changes in currency exchange rates, interest rates, and equity prices. The company is exposed to market risks related to currency exchange rates and interest rates.

Currency exchange rate sensitivity - By the very nature of its global operations, the company's cash flow and earnings are subject to fluctuations due to exchange rate changes. However, because the company operates in a number of locations around the world, currency exchange risk is well diversified. Short-term debt of international affiliates is generally payable in local currencies, which is in keeping with the company's policy of reducing currency exchange exposures by offsetting local currency assets with local currency debt.

Interest rate sensitivity - The company is exposed to changes in interest rates primarily as a result of borrowing and investing activities used to maintain liquidity and fund business operations. Because of the relatively short maturities of temporary investments and the variable rate nature of industrial development debt, these financial instruments were reported at carrying values which approximate fair value at December 31, 2000. The incremental increase in the fair value of fixed rate long term debt resulting from a hypothetical 10% decrease in interest rates would be approximately \$1.5 million. However, the company's sensitivity to interest rate declines and the corresponding increase in the fair value of its debt portfolio would unfavorably affect earnings and cash flows only to the extent that the company elected to repurchase or retire all or a portion of its fixed rate debt portfolio at prices above carrying values.

#### Recently Issued Accounting Standards

SEC Staff Accounting Bulletin No. 101, Revenue Recognition in Financial Statements, which became effective in the fourth quarter of 2000, provides guidance on the recognition, presentation, and disclosure of revenue in financial statements. The effects of this guidance did not have a significant impact on the company's financial statements.

FASB Emerging Issues Task Force Issue No. 00-10, Accounting for Shipping and Handling Costs, which became effective in the fourth quarter of 2000, requires that shipping and handling costs billed to a customer in a sale transaction be classified as revenue in the income statement. Adoption of this guidance by the company, while not significant, increased both net sales and cost of products sold by reclassifying shipping costs billed to customers. Comparative financial statements for periods prior to fourth quarter 2000 were restated to comply with this guidance.

FAS No. 133, Accounting for Derivative Instruments and Hedging Activities, effective January 1, 2001, establishes accounting and reporting standards for derivative instruments, including those embedded in other contracts. The company does not expect that adoption of this statement will have a significant effect on its results or financial position.

#### Common Stock

At December 31, 2000, there were 11,827,623 shares of common stock outstanding. There were at least 875 identifiable common stockholders on November 17, 2000, a recent date for dividends. Common stock price and volume information is included on the American Stock Exchange under the symbol MSA. The quarterly high and low price quotations and cash dividend information for common shares, adjusted to reflect the three-for-one split in May 2000, follow:

Quarter	2000		1999	
	High	Low	High	Low
First	\$21.17	\$18.83	\$24.92	\$17.67

Second	26.50	21.38	27.00	16.83
Third	24.25	18.63	24.96	20.00
Fourth	25.88	19.13	22.33	18.92

Quarter	Dividend Per Share	Record Date	Payment Date
----- 2000 -----			
First	\$.11	Feb. 25, 2000	Mar. 10, 2000
Second	.12	May 26, 2000	Jun. 10, 2000
Third	.12	Aug. 25, 2000	Sep. 10, 2000
Fourth	.12	Nov. 17, 2000	Dec. 10, 2000
-----			
Total	.47		
----- 1999 -----			
First	\$.11	Feb. 26, 1999	Mar. 10, 1999
Second	.11	May 28, 1999	Jun. 10, 1999
Third	.11	Aug. 13, 1999	Sep. 10, 1999
Fourth	.11	Nov. 19, 1999	Dec. 10, 1999
-----			
Total	.44		
-----			

The company's stock transfer agent is Wells Fargo Shareowner Services, 161 North Concord Exchange, P. O. Box 738, South St. Paul, MN 55075-0738.

Report of Management

Mine Safety Appliances Company's consolidated financial statements and related notes that appear in this Annual Report to Shareholders were prepared by the company in accordance with accounting principles generally accepted in the United States of America. In fulfilling its responsibilities for the integrity and objectivity of the consolidated financial statements, management maintains accounting procedures designed to provide accurate books, records and accounts which reasonably and fairly reflect the transactions of the company in a consistent manner on the accrual basis of accounting.

Company personnel are trained and given responsibilities to ensure adequate internal accounting controls at a cost commensurate with the risks involved. Internal accounting controls, monitored by an internal audit staff, provide reasonable assurances that transactions are executed in accordance with proper authorization and that adequate accountability for the company's assets is maintained.

The Board of Directors, through its Audit Committee, is responsible for assuring that management fulfills its responsibilities in the preparation of the financial statements. The Audit Committee meets at least twice a year with the company's independent accountants and internal auditors to discuss the scope of their examinations and any significant findings resulting therefrom.

/s/ Dennis L. Zeitler

Dennis L. Zeitler  
Vice President  
Chief Financial Officer  
and Treasurer

Report of Independent Accountants

To the Shareholders and Board of Directors of Mine Safety Appliances Company

In our opinion, the accompanying consolidated balance sheet and the related consolidated statements of income, of changes in retained earnings and accumulated other comprehensive income, and of cash flows present fairly, in all material respects, the financial position of Mine Safety Appliances Company and its subsidiaries at December 31, 2000 and 1999, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2000, in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Company's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with auditing standards generally accepted in the United States of America which 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, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

As discussed in Note 16 to the financial statements, the Company changed the reporting period for certain subsidiaries in 1999.

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP  
Pittsburgh, Pennsylvania  
February 23, 2001

Consolidated Statement of Income

(In thousands, except per share amounts)

Year Ended December 31	2000	1999	1998
Net sales.....	\$500,367	\$497,908	\$500,193
Other income.....	2,466	3,824	6,026
	-----	-----	-----
	502,833	501,732	506,219
	-----	-----	-----
Costs and expenses			
Cost of products sold.....	313,279	318,174	315,761
Selling, general and administrative.....	124,456	129,478	135,258
Depreciation and amortization.....	24,557	23,356	22,398
Interest.....	4,502	4,273	3,258
Currency exchange (gains)/losses.....	(444)	(694)	315
Facilities consolidation and restructuring charges.....	2,433	3,960	1,021
	-----	-----	-----
	468,783	478,547	478,011
	-----	-----	-----
Income before income taxes.....	34,050	23,185	28,208
Provision for income taxes.....	10,811	6,859	9,933
	-----	-----	-----
Income before change in reporting period.....	23,239	16,326	18,275
Change in reporting period, net of tax.....		(1,192)	
	-----	-----	-----
Net income.....	\$ 23,239	\$ 15,134	\$ 18,275
	=====	=====	=====
Basic earnings per common share:			
Income before change in reporting period.....	\$ 1.89	\$ 1.25	\$ 1.37
Change in reporting period.....		(.09)	
	-----	-----	-----
Net income.....	\$ 1.89	\$ 1.16	\$ 1.37
	=====	=====	=====
Diluted earnings per common share:			
Income before change in reporting period.....	\$ 1.88	\$ 1.25	\$ 1.37
Change in reporting period.....		(.09)	
	-----	-----	-----
Net income.....	\$ 1.88	\$ 1.16	\$ 1.37
	=====	=====	=====

See notes to consolidated financial statements.

Consolidated Balance Sheet

(In thousands, except per share amounts)

December 31	2000	1999
<b>Assets</b>		
<b>Current Assets</b>		
Cash.....	\$ 19,408	\$ 8,898
Temporary investments, at cost which approximates market.....	7,133	8,210
Trade receivables, less allowance for doubtful accounts of \$2,363 and \$2,322 .....	47,055	58,911
Other receivables.....	30,498	22,716
Inventories.....	72,681	82,097
Deferred tax assets.....	14,167	13,348
Prepaid expenses and other current assets.....	10,211	8,910
<b>Total current assets.....</b>	<b>201,153</b>	<b>203,090</b>
<b>Property</b>		
Land.....	5,411	4,655
Buildings.....	106,010	105,022
Machinery and equipment.....	262,372	260,664
Construction in progress.....	9,948	8,154
<b>Total.....</b>	<b>383,741</b>	<b>378,495</b>
Less accumulated depreciation.....	(224,155)	(214,986)
<b>Net property.....</b>	<b>159,586</b>	<b>163,509</b>
<b>Other Assets</b>		
Prepaid pension cost.....	78,157	61,357
Deferred tax assets.....	10,315	4,152
Other noncurrent assets.....	40,472	19,633
<b>Total.....</b>	<b>\$489,683</b>	<b>\$451,741</b>
<b>Liabilities</b>		
<b>Current Liabilities</b>		
Notes payable and current portion of long-term debt.....	\$ 6,616	\$ 4,477
Accounts payable.....	32,387	29,056
Employees' compensation.....	13,202	11,048
Insurance.....	8,476	10,402
Taxes on income.....	2,263	3,878
Other current liabilities.....	24,034	21,144
<b>Total current liabilities.....</b>	<b>86,978</b>	<b>80,005</b>
<b>Long-term Debt</b>		
.....	71,806	36,550
<b>Other Liabilities</b>		
Pensions and other employee benefits.....	54,626	54,111
Deferred tax liabilities.....	47,151	35,961
Other noncurrent liabilities.....	2,657	2,657
<b>Total other liabilities.....</b>	<b>104,434</b>	<b>92,729</b>
<b>Shareholders' Equity</b>		
Preferred stock, 4 1/2% cumulative, \$50 par value (callable at \$52.50) .....	3,569	3,569
Common stock, no par value (shares outstanding: 2000--11,827,623; 1999--4,291,671).....	18,841	12,596
Stock compensation trust.....	(25,683)	(26,679)
Treasury shares, at cost.....	(130,674)	(96,762)
Deferred stock compensation.....	(1,145)	(504)
Accumulated other comprehensive income.....	(20,869)	(14,831)
Earnings retained in the business.....	382,426	365,068
<b>Total shareholders' equity.....</b>	<b>226,465</b>	<b>242,457</b>
<b>Total.....</b>	<b>\$489,683</b>	<b>\$451,741</b>

Consolidated Statement of Cash Flows

(In thousands)

Year Ended December 31	2000	1999	1998
<b>Operating Activities</b>			
Net income.....	\$ 23,239	\$ 15,134	\$ 18,275
Depreciation and amortization.....	24,557	23,625	22,398
Pensions.....	(14,900)	(10,175)	(10,344)
Net gain on sale of investments and assets.....	(2,136)	(2,096)	(3,045)
Deferred income taxes.....	3,906	3,269	7,599
Receivables and other receivables.....	6,007	15,013	(7,730)
Inventories.....	11,927	5,272	(7,764)
Accounts payable and accrued liabilities.....	3,255	(1,892)	317
Other assets and liabilities.....	438	(4,592)	(417)
Other--including currency exchange adjustments.....	(4,025)	(4,136)	1,473
<b>Cash Flow From Operating Activities.....</b>	<b>52,268</b>	<b>39,422</b>	<b>20,762</b>
<b>Investing Activities</b>			
Property additions.....	(19,360)	(26,247)	(34,285)
Property disposals.....	3,428	1,567	2,834
Net proceeds from divestitures.....			22,865
Acquisitions and other investing.....	(30,291)	(4,892)	(1,955)
<b>Cash Flow From Investing Activities.....</b>	<b>(46,223)</b>	<b>(29,572)</b>	<b>(10,541)</b>
<b>Financing Activities</b>			
Additions to long-term debt.....	40,720	25,336	402
Reductions of long-term debt.....	(640)	(588)	(710)
Changes in notes payable and short-term debt.....	(2,276)	(28,767)	8,776
Cash dividends.....	(5,881)	(5,928)	(5,947)
Company stock purchases.....	(54,948)	(5,660)	(7,647)
Company stock sales.....	27,088	222	648
<b>Cash Flow From Financing Activities.....</b>	<b>4,063</b>	<b>(15,385)</b>	<b>(4,478)</b>
Effect of exchange rate changes on cash.....	(675)	(1,377)	(1,644)
Increase (decrease) in cash and cash equivalents.....	9,433	(6,912)	4,099
Beginning cash and cash equivalents.....	17,108	24,020	19,921
<b>Ending cash and cash equivalents.....</b>	<b>\$ 26,541</b>	<b>\$ 17,108</b>	<b>\$ 24,020</b>
<b>Supplemental cash flow information:</b>			
Interest payments.....	\$ 3,419	\$ 4,299	\$ 3,299
Income tax payments.....	6,789	3,648	7,513
Noncash investing activity:			
Investment sold for other current assets.....	1,334		

See notes to consolidated financial statements.

Consolidated Statement of Changes in Retained Earnings  
And Accumulated Other Comprehensive Income

(In thousands)

	Retained Earnings	Accumulated Other Comprehensive Income	Comprehensive Income
Balances January 1, 1998.....	\$343,534	\$ (6,282)	
Net income.....	18,275		\$18,275
Cumulative translation adjustments (a).....		(3,625)	(3,625)
Minimum pension liability adjustments (b).....		(333)	(333)
Comprehensive income.....			\$14,317
Common dividends.....	(5,898)		
Preferred dividends.....	(49)		
Balances December 31, 1998.....	355,862	(10,240)	
Net income.....	15,134		\$15,134
Cumulative translation adjustments.....		(5,141)	(5,141)
Minimum pension liability adjustments (b).....		550	550
Comprehensive income.....			\$10,543
Common dividends.....	(5,878)		
Preferred dividends.....	(50)		
Balances December 31, 1999.....	365,068	(14,831)	
Net income.....	23,239		\$23,239
Cumulative translation adjustments.....		(5,921)	(5,921)
Minimum pension liability adjustments (b).....		(117)	(117)
Comprehensive income.....			\$17,201
Common dividends.....	(5,832)		
Preferred dividends.....	(49)		
Balances December 31, 2000.....	\$382,426	\$(20,869)	

(a) - Charges to cumulative translation adjustments in 1998 include tax expense of \$30,000.

(b) - Charges in 2000 and 1998 to minimum pension liability adjustments are net of tax benefit of \$78,000 and \$221,000, respectively. The credit in 1999 is net of tax expense of \$367,000.

Components of accumulated other comprehensive income are as follows:

	(In thousands)		
	2000	1999	1998
Cumulative translation adjustments.....	\$(20,431)	\$(14,510)	\$ (9,369)
Minimum pension liability adjustments.....	(438)	(321)	(871)
Accumulated other comprehensive income.....	\$(20,869)	\$(14,831)	\$(10,240)

Notes to Consolidated Financial Statements

Note 1--Basis of Presentation

Certain prior year balances have been reclassified to conform with the current year presentation.

Significant accounting policies are stated in italics in the applicable notes to consolidated financial statements.

THE PREPARATION OF FINANCIAL STATEMENTS IN CONFORMITY WITH GENERALLY ACCEPTED ACCOUNTING PRINCIPLES REQUIRES MANAGEMENT TO MAKE ESTIMATES AND ASSUMPTIONS THAT AFFECT THE REPORTED AMOUNTS OF ASSETS AND LIABILITIES AND DISCLOSURE OF CONTINGENT ASSETS AND LIABILITIES AT THE DATE OF THE FINANCIAL STATEMENTS AND THE REPORTED AMOUNTS OF REVENUES AND EXPENSES DURING THE REPORTING PERIOD. ACTUAL RESULTS COULD DIFFER FROM THOSE ESTIMATES.

ALL SIGNIFICANT MAJORITY-OWNED COMPANIES, EXCEPT MINE SAFETY FUNDING CORPORATION, A QUALIFYING SPECIAL PURPOSE ENTITY, ARE INCLUDED IN THE CONSOLIDATED FINANCIAL STATEMENTS. INVESTMENTS IN WHICH THE COMPANY HAS AN EQUITY INTEREST OF 20% TO 50% ARE CARRIED AT EQUITY IN NET ASSETS. INTERCOMPANY TRANSACTIONS ARE ELIMINATED IN CONSOLIDATION.

REVENUE FROM THE SALE OF PRODUCTS IS RECOGNIZED WHEN BOTH RISK OF LOSS AND TITLE HAVE TRANSFERRED TO THE CUSTOMER.

PROPERTY IS STATED AT COST. DEPRECIATION IS BASED ON ESTIMATED USEFUL LIVES USING ACCELERATED AND STRAIGHT-LINE METHODS. MAINTENANCE AND REPAIRS ARE CHARGED TO EXPENSE. RENEWALS AND BETTERMENTS WHICH SUBSTANTIALLY EXTEND THE USEFUL LIFE OF PROPERTY ARE CAPITALIZED. PROFITS OR LOSSES RESULTING FROM DISPOSITIONS ARE INCLUDED IN INCOME.

INTANGIBLE ASSETS, INCLUDING GOODWILL AND PATENTS, ARE AMORTIZED ON A STRAIGHT LINE BASIS OVER PERIODS NOT EXCEEDING 35 YEARS.

THE FINANCIAL STATEMENTS OF COMPANIES FOR WHICH THE UNITED STATES DOLLAR IS DETERMINED TO BE THE FUNCTIONAL CURRENCY ARE TRANSLATED USING CURRENT AND HISTORIC EXCHANGE RATES; ADJUSTMENTS ARE INCLUDED IN INCOME FOR THE CURRENT PERIOD. THE FINANCIAL STATEMENTS OF ALL OTHER COMPANIES ARE TRANSLATED FROM THEIR FUNCTIONAL CURRENCY INTO UNITED STATES DOLLARS USING CURRENT EXCHANGE RATES; TRANSLATION ADJUSTMENTS ARE NOT INCLUDED IN INCOME BUT ARE ACCUMULATED IN A SEPARATE EQUITY ACCOUNT. TRANSACTION GAINS AND LOSSES ARE RECOGNIZED IN INCOME FOR THE CURRENT PERIOD.

CASH AND CASH EQUIVALENTS IN THE CONSOLIDATED STATEMENT OF CASH FLOWS INCLUDES TEMPORARY INVESTMENTS THAT ARE READILY MARKETABLE AND HAVE MINIMAL RISK OF CHANGE IN VALUE. CERTAIN SECURITIES HAVE MATURITIES IN EXCESS OF NINETY DAYS; BUT, AS PART OF THE COMPANY'S CASH MANAGEMENT PROGRAM, MATURITIES ARE SCHEDULED BASED ON EXPECTED CASH NEEDS FOR THE ENSUING TWELVE MONTHS.

COMPREHENSIVE INCOME, DETERMINED IN ACCORDANCE WITH STATEMENT OF FINANCIAL ACCOUNTING STANDARDS NO. 130, INCLUDES NET INCOME AND CHANGES IN OTHER COMPREHENSIVE INCOME ITEMS WHICH ARE REPORTED IN SHAREHOLDERS' EQUITY. OTHER COMPREHENSIVE INCOME IS REPORTED NET OF RELATED INCOME TAX EXPENSE OR BENEFIT.

Note 2--Restructuring

Restructuring charges of \$2,433,000 in 2000, \$3,960,000 in 1999, and \$1,021,000 in 1998 relate to workforce reductions, primarily in Britain, Germany, and Canada in 2000, and in Germany in 1999 and 1998.

Note 3--Research and Development Expense

RESEARCH AND DEVELOPMENT COSTS, CHARGED AGAINST INCOME AS INCURRED, were \$17,241,000 in 2000, \$17,097,000 in 1999, and \$17,415,000 in 1998.

Note 4--Other Income

	(In thousands)		
	2000	1999	1998
Interest .....	\$ 1,243	\$ 914	\$ 1,293
Rent .....	957	1,310	1,226
Dispositions of assets .....	(528)	1,796	807
Equity in earnings of affiliates .....	25	45	(6)
Divestiture of affiliates .....			2,807
Other, net .....	769	(241)	(101)
Total .....	2,466	3,824	6,026

Note 5--Inventories

MOST U.S. INVENTORIES ARE VALUED ON THE LAST-IN, FIRST-OUT (LIFO) COST METHOD. OTHER INVENTORIES ARE VALUED AT THE LOWER OF COST, USING AVERAGE OR CURRENT STANDARD COSTS WHICH APPROXIMATE ACTUAL COSTS ON A FIRST-IN, FIRST-OUT (FIFO) BASIS, OR MARKET, DETERMINED BY REPLACEMENT COST OR NET REALIZABLE VALUE.

Reductions in certain inventory quantities during 2000, 1999, and 1998 resulted in liquidations of LIFO inventory quantities carried at lower costs prevailing in prior years. The effect of these liquidations reduced cost of sales by \$1,920,000 in 2000, \$216,000 in 1999, and \$320,000 in 1998, and increased net income by \$1,171,000 (\$.10 per share), \$132,000 (\$.01 per share), and \$195,000 (\$.01 per share), respectively.

(In thousands)

	2000	1999
Finished products .....	\$30,743	\$37,604
Work in process .....	10,451	7,500
Raw materials and supplies .....	31,487	36,993
Total inventories .....	72,681	82,097
Excess of FIFO costs over LIFO costs .....	42,711	44,919

Inventories stated on the LIFO basis represent 45%, 48%, and 51% of the total inventories at December 31, 2000, 1999, and 1998, respectively.

Note 6--Long-Term Debt

	(In thousands)	
	2000	1999
U.S.		
Industrial development debt issues		
payable through 2022, 6.1% .....	\$10,750	\$10,750
Series A Senior Notes		
payable through 2001, 7.3% .....	5,000	5,000
Series B Senior Notes		
payable through 2006, 7.69% .....	20,000	20,000
Senior Notes		
payable through 2012, 8.39% .....	40,000	
Other, 18% .....	61	89
International		
Various notes payable through 2003,		
4.5% to 8% (\$723 and \$773 collateralized		
by pledge of assets located abroad) .....	1,319	1,110
Total .....	77,130	36,949
Amounts due within one year .....	5,324	399
Long-term debt .....	71,806	36,550

Approximate maturities of these obligations over the next five years are \$5,324,000 in 2001, \$4,281,000 in 2002, \$4,007,000 in 2003, \$4,000,000 in 2004, and \$4,000,000 in 2005. International notes payable include \$132,000 with no fixed maturity date. Some debt agreements require the company to maintain certain financial ratios and minimum net worth and contain restrictions on the total amount of debt.

## Note 7--Segment Information

SEGMENT INFORMATION IS REPORTED IN ACCORDANCE WITH STATEMENT OF FINANCIAL ACCOUNTING STANDARDS NO. 131, WHICH DESIGNATES THE INTERNAL FINANCIAL INFORMATION THAT IS USED BY MANAGEMENT FOR MAKING OPERATING DECISIONS AND ASSESSING PERFORMANCE AS THE SOURCE FOR IDENTIFYING THE COMPANY'S OPERATING SEGMENTS.

The company is organized into three geographic operating segments (North America, Europe, and Other International), each of which includes a number of operating companies. The company is engaged in the manufacture and sale of safety and health equipment, including respiratory protective equipment, head protection, eye and face protection, hearing protectors, safety clothing, industrial emergency care products, mining safety equipment, thermal imaging cameras, and monitoring instruments. In addition, the company manufactures and sells specialty chemicals, including boron-based chemicals.

Reportable segment information is presented in the following table:

	(In thousands)				
	North America	Europe	Other International	Reconciling items	Consolidated totals
<b>2000</b>					
Sales to external customers .....	\$ 327,849	\$ 99,119	\$ 73,199	\$ 200	\$ 500,367
Intercompany sales .....	25,573	16,389	1,453	(43,415)	
Net income .....	21,876	(2,225)	3,624	(36)	23,239
Total assets .....	365,035	93,955	50,296	(19,603)	489,683
Interest income .....	604	285	329	25	1,243
Interest expense .....	3,791	216	495		4,502
Noncash items:					
Depreciation and amortization .....	19,744	3,374	1,314	125	24,557
Pension income (expense) .....	16,640	(1,552)	(188)		14,900
Equity in earnings of affiliates .....			25		25
Income tax provision (benefit) .....	11,001	(2,041)	1,776	75	10,811
Investments in affiliates .....	1,358		95		1,453
Property additions .....	14,031	3,630	1,694	5	19,360
Fixed assets .....	132,597	20,681	6,290	18	159,586
<b>1999</b>					
Sales to external customers .....	315,087	113,365	68,032	1,424	497,908
Intercompany sales .....	34,128	17,637	1,691	(53,456)	
Net income .....	14,991	(1,724)	3,498	(1,631)	15,134
Total assets .....	330,884	92,531	49,836	(21,510)	451,741
Interest income .....	298	406	190	20	914
Interest expense .....	3,267	285	723	(2)	4,273
Noncash items:					
Depreciation and amortization .....	17,451	4,386	1,392	127	23,356
Pension income (expense) .....	13,002	(3,149)	322		10,175
Equity in earnings of affiliates .....			45		45
Income tax provision (benefit) .....	7,502	(2,123)	1,657	(177)	6,859
Investments in affiliates .....	1,358		70		1,428
Property additions .....	20,028	4,662	1,547	10	26,247
Fixed assets .....	135,146	21,679	6,660	24	163,509
<b>1998</b>					
Sales to external customers .....	311,495	121,427	64,094	3,177	500,193
Intercompany sales .....	34,013	16,922	1,052	(51,987)	
Net income .....	16,353	490	1,076	356	18,275
Total assets .....	322,523	108,294	45,144	(18,240)	457,721
Interest income .....	253	503	322	215	1,293
Interest expense .....	2,173	211	874		3,258
Noncash items:					
Depreciation and amortization .....	14,872	4,852	1,274	1,400	22,398
Pension income (expense) .....	13,727	(3,126)	(257)		10,344
Equity in earnings of affiliates .....			(6)		(6)
Income tax provision .....	9,189	(213)	995	(38)	9,933
Investments in affiliates .....	358		31		389
Property additions .....	27,199	4,010	3,073	3	34,285
Fixed assets .....	132,771	24,793	6,970	27	164,561

## Sales by product line:

	(In thousands)		
	2000	1999	1998
Safety and health equipment .....	\$468,032	\$462,608	\$460,694
Specialty chemicals .....	32,335	35,300	39,499
	500,367	497,908	500,193

Reconciling items consist primarily of intercompany eliminations and items reported at the corporate level.

Sales are attributed to countries based on the location of the selling company. Sales in Germany were \$47,471,000 in 2000, \$56,017,000 in 1999, and \$58,239,000 in 1998.

Note 8--Income Taxes

INCOME TAXES ARE ACCOUNTED FOR IN ACCORDANCE WITH STATEMENT OF FINANCIAL ACCOUNTING STANDARDS NO. 109. DEFERRED TAX BALANCES ARE STATED AT ENACTED TAX RATES EXPECTED TO BE IN EFFECT WHEN TAXES ARE ACTUALLY PAID OR DEDUCTIONS ARE TAKEN. NO PROVISION IS MADE FOR UNDISTRIBUTED EARNINGS OF INTERNATIONAL AFFILIATES SINCE LITTLE OR NO TAX WOULD RESULT UNDER APPLICABLE EXISTING STATUTES OR BECAUSE MANAGEMENT INTENDS THAT THESE EARNINGS BE PERMANENTLY REINVESTED FOR WORKING CAPITAL AND CAPITAL EXPENDITURE REQUIREMENTS.

The U.S. and non-U.S. components of income before income taxes, and provisions for income taxes are summarized as follows:

	(In thousands)		
	2000	1999	1998
<b>Income Before Income Taxes</b>			
U.S. income .....	\$ 32,053	\$ 23,790	\$ 25,811
Non-U.S. income .....	6,080	3,225	5,083
Currency translation (losses) .....		(95)	(487)
Eliminations .....	(4,083)	(3,735)	(2,199)
<b>Income Before Income Taxes .....</b>	<b>34,050</b>	<b>23,185</b>	<b>28,208</b>
<b>Provision For Income Taxes</b>			
<b>Current</b>			
Federal .....	2,713	(834)	(146)
State .....	804	367	(328)
Non-U.S. ....	3,388	3,281	2,808
<b>Total current provision .....</b>	<b>6,905</b>	<b>2,814</b>	<b>2,334</b>
<b>Deferred</b>			
Federal .....	5,540	5,779	7,364
State .....	1,221	921	1,382
Non-U.S. ....	(2,855)	(2,655)	(1,147)
<b>Total deferred provision .....</b>	<b>3,906</b>	<b>4,045</b>	<b>7,599</b>
<b>Provision for Income Taxes .....</b>	<b>10,811</b>	<b>6,859</b>	<b>9,933</b>

The following is a reconciliation of income taxes calculated at the U.S. Federal income tax rate of 35% to the provision for income taxes:

Provision for income taxes at statutory rate ..	11,918	8,115	9,873
State income taxes, net of federal benefit ...	1,316	837	685
Adjustment of prior years' income taxes .....	(782)	(954)	(469)
Non-U.S. taxes .....	(1,323)	(774)	(332)
Other--net .....	(318)	(365)	176
<b>Provision for income taxes .....</b>	<b>10,811</b>	<b>6,859</b>	<b>9,933</b>

The components of deferred taxes are as follows:

	(In thousands)	
	2000	1999
<b>Deferred tax assets</b>		
Postretirement benefits .....	\$ 5,946	\$ 5,399
Inventory reserves and unrealized profits .....	4,745	4,568
Vacation allowances .....	2,050	1,986
Loss and credit carryforwards .....	12,590	6,574
Liability insurance .....	2,036	3,111
Accrued liabilities .....	2,274	2,377
Basis of investments .....	(2,825)	(429)
Allowance for doubtful accounts .....	483	409
Trademarks and license fees .....	642	608
Warranties .....	871	856
Other .....	397	417
<b>Total deferred tax assets .....</b>	<b>29,209</b>	<b>25,876</b>
<b>Deferred tax liabilities</b>		
Depreciation .....	(26,296)	(25,585)
Pension .....	(25,582)	(18,752)
<b>Total deferred tax liabilities .....</b>	<b>(51,878)</b>	<b>(44,337)</b>
<b>Net deferred taxes .....</b>	<b>(22,669)</b>	<b>(18,461)</b>

Undistributed earnings of international companies for which U.S. income taxes have not been provided were \$78,237,000 at December 31, 2000.

The company has tax credit carryforwards of \$2,613,000 that expire between 2003 and 2018. The company also has net operating loss carryforwards of \$9,059,000 with no expiration date, primarily in Germany, and \$918,000 that expire in 2008.

## Notes to Consolidated Financial Statements

## Note 9--Capital Stock

- . Common stock, no par value - 60,000,000 shares authorized
- . Second cumulative preferred voting stock, \$10 par value - 1,000,000 shares authorized; none issued
- . 4 1/2% cumulative preferred stock, \$50 par value - 100,000 shares authorized; 71,373 shares issued and 49,713 shares (\$1,608,000) held in treasury (no activity in 2000 and 1998; 400 shares, \$13,000, purchased for treasury in 1999)

Common stock activity is summarized as follows:

	Shares			Dollars (In thousands)		
	Shares Issued	Stock Compensation Trust	Shares In Treasury	Shares Issued	Stock Compensation Trust	Treasury Cost
Balances January 1, 1998.....	6,778,599	(600,000)	(1,722,684)	\$ 12,270	\$ (28,200)	\$ (81,847)
Management Share Incentive Plan issues.....		16,130		219	758	
Stock options exercised.....		12,180		75	573	
Purchased for treasury.....			(105,351)			(7,647)
Balances December 31, 1998.....	6,778,599	(571,690)	(1,828,035)	12,564	(26,869)	(89,494)
Stock options exercised.....		4,060		32	190	
Purchased for treasury.....			(91,263)			(5,660)
Balances December 31, 1999.....	6,778,599	(567,630)	(1,919,298)	12,596	(26,679)	(95,154)
Management Share Incentive Plan issues (pre-split).....		19,760		318	929	
Purchased for treasury (pre-split).....			(74,616)			(4,994)
Three-for-one stock split.....	13,557,198	(1,095,740)	(3,987,828)			
Management Share Incentive Plan forfeitures (post-split).....			(2,790)			(58)
Stock options exercised (post-split).....		4,290		21	67	
Purchased for treasury (post-split).....			(2,009,322)			(49,954)
Issued from treasury (post-split).....			1,125,000	5,906		21,094
Balances December 31, 2000.....	20,335,797	(1,639,320)	(6,868,854)	18,841	(25,683)	(129,066)

On May 10, 2000, the company's shareholders approved a three-for-one stock split of both the issued and authorized common stock, which was distributed on May 24, 2000, to shareholders of record on May 12, 2000.

During 2000, the company purchased 2.1 million shares of common stock from a major shareholder for \$54.9 million. In a subsequent transaction, the company sold 1,125,000 shares of common stock that were held in treasury to the MSA Non-Contributory Pension Plan for Employees for \$27 million.

The Mine Safety Appliances Company Stock Compensation Trust was established to fund certain stock-related benefit plans, including employee stock options and awards. Shares held by the Stock Compensation Trust, and the corresponding cost of those shares, are reported as a reduction of common shares issued. Differences between the cost of the shares held by the Stock Compensation Trust and the market value of shares released for stock-related benefits are reflected in shares issued.

The company has a Shareholder Rights Plan under which each outstanding share of common stock is granted one-third of a preferred share purchase right. The rights are exercisable for a fraction of a share of preferred stock, only if a person or group acquires or commences a tender offer for 15% or more of the company's common stock. In the event a person or group acquires 15% or more of the outstanding common stock, each right not owned by that person or group will entitle the holder to purchase that number of shares of common stock having a value equal to twice the \$225 exercise price. The Board of Directors may redeem the rights for \$.01 per right at any time until ten days after the announcement that a 15% position has been acquired. The rights expire on February 21, 2007.

## Note 10--Earnings per Share

BASIC EARNINGS PER SHARE IS COMPUTED ON THE WEIGHTED AVERAGE NUMBER OF COMMON SHARES OUTSTANDING DURING THE PERIOD. DILUTED EARNINGS PER SHARE INCLUDES THE EFFECT OF THE WEIGHTED AVERAGE STOCK OPTIONS OUTSTANDING DURING THE PERIOD, USING THE TREASURY STOCK METHOD. ANTIDILUTIVE OPTIONS ARE NOT CONSIDERED IN COMPUTING DILUTED EARNINGS PER SHARE.

	(In thousands)		
	2000	1999	1998
Net income .....	\$ 23,239	\$ 15,134	\$ 18,275
Preferred stock dividends .....	(49)	(50)	(49)
Income available to common shareholders ....	23,190	15,084	18,226
Basic shares outstanding .....	12,301	12,972	13,290
Stock options .....	55	33	51

Diluted shares outstanding .....	12,356	13,005	13,341
	-----		
Antidilutive stock options .....	18	108	9
	-----		

Note 11--Short-Term Debt

Short-term bank lines of credit amounted to \$21,426,000 of which \$19,600,000 was unused at December 31, 2000. Generally, these short-term lines of credit are renewable annually, and there are no significant commitment fees or compensating balance requirements. Short-term borrowings with banks, which exclude the current portion of long-term debt, were \$1,288,000 and \$4,071,000 at December 31, 2000 and 1999, respectively. The average month-end balance of total short-term borrowings during 2000 was \$5,611,000 while the maximum month-end balance of \$15,858,000 occurred at June 30, 2000. The average interest rate during 2000 was approximately 14% based upon total short-term interest expense divided by the average month-end balance outstanding, and 14% at year-end.

Note 12--Pensions and Other Postretirement Benefits

THE COMPANY'S NON-CONTRIBUTORY PENSION PLANS ARE ACCOUNTED FOR IN ACCORDANCE WITH STATEMENT OF FINANCIAL ACCOUNTING STANDARDS NO. 87 WHICH REQUIRES USE OF THE PROJECTED UNIT CREDIT COST METHOD TO DETERMINE THE PROJECTED BENEFIT OBLIGATION AND PLAN COST. THE PRINCIPAL U.S. PLAN IS FUNDED IN COMPLIANCE WITH THE EMPLOYEE RETIREMENT INCOME SECURITY ACT (ERISA). IT IS THE GENERAL POLICY TO FUND CURRENT COSTS FOR THE INTERNATIONAL PLANS EXCEPT IN GERMANY AND MEXICO, WHERE IT IS COMMON PRACTICE AND PERMISSIBLE UNDER TAX LAWS TO ACCRUE BOOK RESERVES. A minimum liability is recognized for unfunded defined benefit plans for which the accumulated benefit obligation exceeds accrued pension costs. The amount of the minimum liability in excess of unrecognized prior service cost, net of tax benefit, is recorded as a reduction in shareholders' equity. Non-contributory plan benefits are generally based on years of service and employees' compensation during the last years of employment. Benefits are paid from funds previously provided to trustees or are paid by the company and charged to the book reserves.

The company provides certain health care benefits and limited life insurance for retired employees and their eligible dependents, THE COSTS FOR WHICH ARE ACCOUNTED FOR IN ACCORDANCE WITH STATEMENT OF FINANCIAL ACCOUNTING STANDARDS (SFAS) NO. 106. SFAS NO. 106 REQUIRES RECOGNITION OF RETIREE HEALTH AND LIFE INSURANCE BENEFITS DURING THE EMPLOYEES' SERVICE WITH THE COMPANY.

Information pertaining to defined benefit pension plans and other postretirement benefits plans, PREPARED IN ACCORDANCE WITH STATEMENT OF FINANCIAL ACCOUNTING STANDARDS NO. 132, is provided in the following table.

	(In thousands)			
	Pension Benefits		Other Benefits	
	2000	1999	2000	1999
<b>Change in Benefit Obligations</b>				
Benefit obligations at January 1 .....	\$ 186,886	\$ 207,269	\$ 18,546	\$ 17,353
Service cost .....	4,461	5,426	409	437
Interest cost .....	12,537	13,049	1,390	1,212
Employee contributions .....	117	65		
Plan amendments .....	621			
Actuarial (gains) losses .....	1,282	(11,759)	858	1,048
Benefits paid .....	(12,540)	(12,918)	(1,833)	(1,504)
Curtailments .....	(332)			
Settlements .....	(12,460)	(15,923)		
Termination benefits .....	(3,540)	5,842		
Currency translation effects .....	(3,540)	(4,165)		
	-----	-----	-----	-----
Benefit obligations at December 31 .....	177,032	186,886	19,370	18,546
	-----	-----	-----	-----
<b>Change in Plan Assets</b>				
Fair value of plan assets at January 1 .....	341,250	330,890		
Actual return on plan assets .....	9,921	35,502		
Employer contributions .....	2,247	2,633	43	1,504
Employee contributions .....	221	169		
Benefits paid .....	(12,540)	(12,918)		(1,504)
Section 420 transfer to retiree medical plan .....	(1,790)		1,790	
Settlements .....	(12,460)	(15,276)	(1,833)	
Currency translation effects .....	(2,025)	250		
	-----	-----	-----	-----
Fair value of plan assets at December 31 .....	324,824	341,250		
	-----	-----	-----	-----
<b>Funded Status</b>				
Funded status at December 31 .....	147,792	154,364	(19,370)	(18,546)
Unrecognized transition gains .....	(1,274)	(5,320)		
Unrecognized prior service cost .....	1,806	1,664	(1,065)	(69)
Unrecognized net actuarial (gains) losses .....	(106,703)	(125,933)	4,726	2,985
	-----	-----	-----	-----
Prepaid (accrued) benefit cost .....	41,621	24,775	(15,709)	(15,630)
	-----	-----	-----	-----
<b>Amounts Recognized in the Balance Sheet</b>				
Prepaid benefit cost .....	78,157	61,357		

Accrued benefit liability .....	(37,954)	(37,479)	(15,709)	(15,630)
Intangible asset .....	689	362		
Minimum pension liability adjustments .....	729	535		
	-----	-----	-----	-----
Prepaid (accrued) benefit cost .....	41,621	24,775	(15,709)	(15,630)
	-----	-----	-----	-----

(In thousands, except percents)

	Pension Benefits		Other Benefits	
	2000	1999	2000	1999
Actuarial Assumptions at December 31				
Discount rate.....	7%	7%	7.5%	7.5%
Expected return on plan assets.....	9%	9%		
Rate of compensation increases.....	4%	4%		
Plans with Accumulated Benefit Obligations in Excess of Plan Assets				
Projected benefit obligations.....	\$39,761	\$40,298		
Accumulated benefit obligations.....	38,329	36,818		
Plan assets.....	0	0		

(In thousands)	Pension Benefits			Other Benefits		
	2000	1999	1998	2000	1999	1998
Components of Net Periodic Benefit Cost (Credit)						
Service cost .....	\$ 4,358	\$ 5,426	\$ 5,057	\$ 409	\$ 437	\$ 319
Interest cost .....	12,537	13,049	13,327	1,390	1,212	1,089
Expected return on plan assets .....	(25,181)	(23,061)	(22,002)			
Amortization of transition (asset) .....	(624)	(703)	(729)			
Amortization of prior service cost .....	302	382	387	(108)	(8)	(8)
Recognized net actuarial (gains) losses .....	(3,914)	(2,487)	(2,391)	310	278	8
Settlement gain .....	(2,093)	(8,623)	(3,993)			
Curtailement gain .....	(285)					
Termination benefits .....		5,842				
Net periodic benefit cost (credit) .....	(14,900)	(10,175)	(10,344)	2,001	1,919	1,408

For measurement purposes, a 7.5% increase in the costs of covered health care benefits was assumed for the year 2000, decreasing by .5% for each successive year to 4% in 2007 and thereafter. A one-percentage-point change in assumed health care cost trend rates would have increased or decreased the other postretirement benefit obligations and current year plan expense by approximately \$1 million and \$100,000, respectively.

Expense for defined contribution pension plans was \$2,619,000 in 2000, \$2,750,000 in 1999, and \$3,113,000 in 1998.

#### Note 13--Acquisitions

During 2000, the company acquired ISI Group, Inc. (ISIG), an established manufacturer of infrared thermal imaging cameras, and CairnsHelmets (Cairns), a leading supplier of firefighter head protection. The acquisitions were recorded using the purchase method of accounting. The aggregate purchase price of \$29.7 million was allocated to the assets acquired and the liabilities assumed based on estimated fair values and included \$24.9 million in goodwill, which is being amortized on a straight line basis over 10 years for ISIG and 35 years for Cairns. The results of operations of ISIG and Cairns are included in the financial statements from their respective dates of acquisition.

The acquisition agreement for ISIG provides for additional consideration to be paid to the seller annually based on a defined calculation of gross profit from the sale of certain thermal imaging cameras in 2000 through 2003. Additional consideration will be charged to goodwill when paid and amortization expense will be adjusted to fully amortize ISIG goodwill by the end of the 10 year period.

The following unaudited pro forma summary presents information as if ISIG and Cairns had been acquired at January 1, 1999:

(In thousands, except earnings per share)	2000	1999
Net sales.....	\$509,937	\$515,785
Net income.....	23,551	15,624
Basic earnings per share.....	1.91	1.20

The pro forma amounts include certain adjustments, primarily to recognize goodwill amortization and interest expense, and do not recognize any benefits which may be achieved from combining operations. The pro forma information does not necessarily reflect the actual results that would have occurred and is not necessarily indicative of future results of operations of the combined companies.

Note 14--Leases

The company leases office space, manufacturing and warehouse facilities, automobiles and other equipment under operating leases expiring at various dates through 2015. Rent expense was \$5,700,000 in 2000, \$5,813,000 in 1999, and \$5,846,000 in 1998. Minimum rental commitments under noncancelable leases are \$1,133,000 in 2001, \$752,000 in 2002, \$657,000 in 2003, \$548,000 in 2004, \$555,000 in 2005, and \$5,227,000 after 2005.

Note 15--Accounts Receivable Securitization

STATEMENT OF FINANCIAL ACCOUNTING STANDARD NO. 125, ACCOUNTING FOR TRANSFERS AND SERVICING OF FINANCIAL ASSETS AND EXTINGUISHMENT OF LIABILITIES (FAS NO. 125), APPLIES A CONTROL-ORIENTED, FINANCIAL COMPONENTS APPROACH TO FINANCIAL-ASSET-TRANSFER TRANSACTIONS. FINANCIAL ASSETS, NET OF RETAINED INTERESTS, ARE REMOVED FROM THE BALANCE SHEET WHEN THE ASSETS ARE SOLD AND CONTROL IS SURRENDERED. IN SEPTEMBER 2000, FAS NO. 125 WAS REPLACED BY FAS NO. 140 WHICH REVISED CERTAIN ACCOUNTING AND DISCLOSURE REQUIREMENTS FOR SECURITIZATIONS AND OTHER TRANSFERS OF FINANCIAL ASSETS, BUT CARRIED OVER MOST FAS NO. 125 PROVISIONS.

In November 1999, the company and Mine Safety Funding Corporation (MSF) entered into securitization agreements under which the company sells MSF, on a continuous basis, an undivided interest in eligible trade accounts receivable generated by the company, while maintaining a subordinated interest in a portion of the receivables. MSF is an unconsolidated wholly-owned special purpose, bankruptcy-remote subsidiary of the company. The company services the sold receivables for MSF at market rates and, accordingly, no servicing asset or liability has been recorded. MSF and the company have also entered into securitization agreements with financial institutions under which MSF may sell up to \$30 million of accounts receivable to a multi-seller asset-backed commercial paper issuer.

At December 31, 2000, accounts receivable of \$53.2 million were owned by MSF. The company held a subordinated interest in these receivables of \$31.5 million, of which \$30.5 million is classified as other receivables. Net proceeds to the company from the securitization arrangement were \$21.0 million at December 31, 2000. The company incurred costs associated with the securitization facility of \$2.4 million in 2000, representing the discount loss on the sale of the receivables, partially offset by related servicing income.

At December 31, 1999, accounts receivable of \$43.3 million were owned by MSF. The company held a subordinated interest in these receivables of \$23.7 million, of which \$22.7 million is classified as other receivables. Net proceeds to the company from the securitization arrangement were \$18.7 million at December 31, 1999. The company incurred costs associated with the securitization facility of \$300,000 in 1999, representing the discount loss on the sale of the receivables, partially offset by related servicing income.

Note 16--Change in Reporting Period

Beginning in 1999, certain international affiliates which had been consolidated based on fiscal years ending November 30 changed to fiscal years ending December 31. The after-tax effect of the change in reporting period is included in the 1999 income statement as a change in accounting principle.

(In thousands)

	-----
Net sales.....	\$11,290
Cost of products sold.....	8,629
Selling, general and administrative.....	3,497
Depreciation and amortization.....	372
Facilities consolidation and restructuring charges.....	421
Other expenses, net.....	258
Income tax benefit.....	(695)
	-----
Change in reporting period, net of tax.....	(1,192)

Note 17--Recently Issued Accounting Standards

In June 1998, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 133, Accounting for Derivative Instruments and Hedging Activities (FAS No. 133), which later was amended by FAS Nos. 137 and 138. FAS No.133 requires the recognition of all derivatives, including those embedded in other contracts, as either assets or liabilities at fair value. Changes in fair value are to be reflected in either current period net income or other comprehensive income, depending on the designation of the derivative instrument. The company may elect not to designate a derivative instrument as a hedge even if the strategy would be expected to qualify for hedge accounting treatment. The adoption of FAS No. 133 will change the timing of recognition for derivative gains and losses as compared to previous accounting standards. The company will adopt FAS No.133 effective January 1, 2001. The company does not expect that adoption of this statement will have a significant effect on its results or financial position.

## Note 18--Stock Plans

The 1998 Management Share Incentive Plan permits the granting of restricted stock awards and stock options to eligible key employees through March 2008. The 1990 Non-Employee Directors' Stock Option Plan provides for annual grants of stock options to eligible directors. As of December 31, 2000, there were 1,260,114 shares and 83,400 shares, respectively, reserved for future grants pursuant to these plans.

THE COMPANY APPLIES ACCOUNTING PRINCIPLES BOARD OPINION 25 AND RELATED INTERPRETATIONS IN ACCOUNTING FOR THE PLANS. ACCORDINGLY, NO COMPENSATION COST IS RECOGNIZED FOR STOCK OPTION GRANTS. COMPENSATION COST FOR RESTRICTED STOCK AWARDS IS MEASURED BY THE MARKET VALUE OF THE SHARES WHEN AWARDED AND IS AMORTIZED BY CHARGES TO OPERATIONS OVER THE PERIOD THAT THE EMPLOYEE PROVIDES THE SERVICE.

Restricted stock awards are granted to employees without payment to the company in consideration of services to be performed in ensuing four-year periods. Restricted stock awards of 19,760 shares (pre-split), with a fair value of \$63.06 per share, were granted in 2000. Restricted stock awards expense charged to operations was \$547,000 in 2000, \$448,000 in 1999, and \$368,000 in 1998.

Stock options are generally granted at market value option prices and expire after ten years (limited instances of option prices in excess of market value and expiration after five years). If compensation cost for stock option grants had been determined based on the fair value method provided in Statement of Financial Accounting Standards No. 123, proforma net income in 2000, 1999 and 1998 would have been \$21,775,000, \$14,609,000, and \$17,805,000 and earnings per basic share would have been \$1.77, \$1.13, and \$1.34, respectively. The fair value of the options granted was estimated at the grant date using the Black-Scholes option pricing model and the following weighted average assumptions for options granted in 2000, 1999, and 1998, respectively: risk-free interest rate of 7.0%, 5.1%, and 5.5%; dividend yield of 2.3%, 2.2%, and 2.0%; expected option life of 9.8 years, 9.8 years, and 9.7 years; and expected volatility factor of 19% in all three years.

A summary of stock option activity under the two plans, adjusted to reflect the three-for-one stock split in May 2000, follows:

	2000		1999		1998	
	Shares	Weighted-Average Exercise Price	Shares	Weighted-Average Exercise Price	Shares	Weighted-Average Exercise Price
Outstanding at beginning of year....	305,379	\$19.24	215,715	\$18.25	165,003	\$16.88
Granted.....	267,120	21.11	101,844	21.24	87,252	20.62
Exercised.....	(4,290)	20.56	(12,180)	18.30	(36,540)	17.73
Forfeited.....	(23,415)	19.30				
Outstanding at end of year.....	544,794	20.08	305,379	19.24	215,715	18.25
Options exercisable at year-end.....	544,794		305,379		215,715	

The weighted average remaining contractual life of all options outstanding at December 31, 2000 was approximately 7 years. Weighted average remaining contractual life by exercise price range is summarized as follows:

Exercise prices of \$13.48 to \$15.71 - 4 years  
Exercise prices of \$18.33 to \$23.88 - 8 years

## Note 19--Quarterly Financial Information (Unaudited)

(In thousands, except earnings per share)

	2000					1999				
	Quarters					Quarters				
	1st	2nd	3rd	4th	Year	1st	2nd	3rd	4th	Year
Net sales.....	\$129,236	\$121,683	\$119,745	\$129,703	\$500,367	\$116,879	\$124,633	\$118,889	\$137,507	\$497,908
Gross profit.....	50,387	43,305	42,939	50,457	187,088	42,034	42,308	45,284	50,108	179,734
Net income.....	7,459	2,826	3,920	9,034	23,239	2,570	737	4,341	7,486	15,134
Basic earnings per share....	.58	.22	.33	.76	1.89	.20	.05	.34	.58	1.16
Diluted earnings per share..	.58	.22	.33	.76	1.88	.20	.05	.33	.58	1.16

Fourth quarter 1999 net income and earnings per share include a loss of

\$1,192,000 or \$.09 per share resulting from the change in reporting period. The effect of this change on full year 1999 net income and earnings per share was \$1,192,000 or \$.09 per share.

Shipping charges billed to customers have been reclassified from cost of products sold to net sales to comply with FASB Emerging Issues Task Force Issue 00-10, Accounting for Shipping and Handling Costs. Amounts reclassified in the first, second, third, and fourth quarters of 2000 were \$1,018,000, \$980,000, \$994,000, and \$945,000, respectively, and for the first, second, third, and fourth quarters of 1999 were \$912,000, \$958,000, \$885,000, and \$926,000, respectively.

Earnings per share information has been adjusted to reflect the three-for-one stock split in May 2000.

Summary of Selected Financial Data

Summary of Operations	2000	1999	1998	1997	1996
(In thousands, except as noted)					
Net sales	\$ 500,367	\$ 497,908	\$500,193	\$503,191	\$509,086
Other income	2,466	3,824	6,026	6,802	7,141
Cost of products sold	313,279	318,174	315,761	306,280	311,143
Selling, general and administrative	124,456	129,478	135,258	139,256	137,141
Depreciation and amortization	24,557	23,356	22,398	23,233	23,644
Interest expense	4,502	4,273	3,258	2,781	1,595
Currency exchange (gains) losses	(444)	(694)	315	40	735
Facilities consolidation and restructuring charges	2,433	3,960	1,021	2,164	5,302
Provision for income taxes	10,811	6,859	9,933	14,385	13,606
Income before change in reporting period	23,239	16,326	18,275	21,854	23,061
Change in reporting period, net of tax		(1,192)			
Net Income	23,239	15,134	18,275	21,854	23,061
Basic per common share (in dollars)	1.89	1.16	1.37	1.60	1.58
Diluted per common share (in dollars)	1.88	1.16	1.37	1.60	1.58
Dividends paid per common share (in dollars)	.47	.44	.44	.41	.37
Weighted average number of common shares outstanding--basic	12,301	12,972	13,290	13,608	14,556
Year-end Position					
Working capital	\$ 114,175	\$ 123,085	\$119,203	\$116,373	\$136,593
Working capital ratio	2.3	2.5	2.1	2.1	2.5
Net property	159,586	163,509	164,561	157,957	147,058
Total assets	489,683	451,741	457,721	437,153	422,515
Long-term debt	71,806	36,550	11,919	12,270	13,278

Common shareholders' equity	225,382	241,374	241,743	240,004	239,738
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Equity per common share (in dollars)	19.06	18.75	18.40	17.95	17.33
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## MINE SAFETY APPLIANCES COMPANY

The registrant's present affiliates include the following:

Name -----	State or Other Jurisdiction of Incorporation -----
Compania MSA de Argentina S.A.	Argentina
MSA (Aust.) Pty. Limited	Australia
MSA-Auer Sicherheitstechnik Vertriebs GmbH	Austria
MSA Export Limited	Barbados
MSA Belgium NV	Belgium
MSA do Brasil Ltda.	Brazil
MSA Canada	Canada
MSA de Chile Ltda.	Chile
Wuxi-MSA Safety Equipment Co. Ltd.	China
Rose Manufacturing Company	Colorado
MSA International, Inc.	Delaware
MSA de France	France
MSA Auer	Germany
MSA-Auer Hungaria Safety Technology	Hungary
MSA Italiana S.p.A.	Italy
MSA Japan Ltd.	Japan
MSA de Mexico, S.A. de C.V.	Mexico
MSA Nederland, B.V.	Netherlands
MSA del Peru S.A.C.	Peru
MSA-Auer Polska Sp. z o.o.	Poland
MSA (Britain) Limited	Scotland
MSA S.E. Asia Pte. Ltd.	Singapore
MSA Africa (Pty.) Ltd.	South Africa
MSA Espanola S.A.	Spain
AB Tegma	Sweden
MSA (Switzerland) Ltd.	Switzerland
Aritron Instrument A.G.	Switzerland
MSA Zimbabwe (Pvt.) Limited	Zimbabwe

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The above-mentioned affiliated companies are included in the consolidated financial statements of the registrant filed as part of this annual report. The names of certain other affiliates, which considered in the aggregate as a single affiliate would not constitute a significant affiliate, have been omitted.

Consent of Independent Accountants  
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We hereby consent to the incorporation by reference in the Registration Statement on Form S-8 (No. 33-22284), the Registration Statement on Form S-8 (No. 33-43696) and the Registration Statement on Form S-8 (No. 333-51983) of Mine Safety Appliances Company of our reported dated February 23, 2001 relating to the financial statements, which appears in the Annual Report to Shareholders, which is incorporated in this Annual Report on Form 10-K. We also consent to the incorporation by reference of our report dated February 23, 2001 relating to the Financial Statement Schedule, which appears in this Form 10-K.

PricewaterhouseCoopers LLP

Pittsburgh, Pennsylvania  
March 26, 2001