SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

FORM 10-K

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

For the fiscal year ended December 31, 1997

Commission file number 1-3295

MINERALS TECHNOLOGIES INC. (Exact name of registrant as specified in its charter) Delaware (State or other jurisdiction of incorporation or organization The Chrysler Building 405 Lexington Avenue New York, New York (address of principal executive office) MINERALS TECHNOLOGIES INC. (Exact name of registrant as specified in its charter) (I.R.S. Employer Identification Number) 10174-1901 (Zip Code)

(212) 878-1800

(Registrant's telephone number including area code)

Securities registered pursuant to Section	12(b) of the Act:
Title of each class	Name of each exchange on which registered
Common Stock, \$.10 par value	New York Stock Exchange
Securities registered pursuant to Section None	12(g) of the Act:

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes X No

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

The aggregate market value of the voting stock held by non-affiliates of the Registrant, based upon the closing price at which the stock was sold as of January 30, 1998 was approximately \$735.0 million. Shares of common stock held by each officer and director and by each person who owns 5% or more of the outstanding common stock have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of March 3, 1998, the Registrant had outstanding 22,574,368 shares of common stock, all of one class.

DOCUMENTS INCORPORATED BY REFERENCE

Proxy Statement dated April 3, 1998

MINERALS TECHNOLOGIES INC. 1997 FORM 10-K ANNUAL REPORT Table of Contents

Page

PART I

Item 1.	Business	1
Item 2.	Properties	9
Item 3.	Legal Proceedings	12
Item 4.	Submission of Matters to a Vote of Security Holders	12
	Executive Officers of the Registrant	12

PART II

Item 5.	Market for the Registrant's Common Equity and Related Stockholder Matters	14
Item 6.	Selected Financial Data	15
Item 7.	Management's Discussion and Analysis of Financial Condition and Results of Operations	16
Item 8.	Financial Statements and Supplementary Data	20

- Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure 20
 - PART III

Item	10.	Directors and Executive Officers of the Registrant	20
Item	11.	Executive Compensation	20
Item	12.	Security Ownership of Certain Beneficial Owners and Management	20
Item	13.	Certain Relationships and Related Transactions	21

PART IV

Item	14.	Exhibits, Form 8-K	Financial	Statement	Schedule	and Repo	orts (on 21

Signatures

24

PART I

Item 1. Business Minerals Technologies Inc. (the "Company") is a resource- and technologybased company that develops, produces and markets on a worldwide basis a broad range of specialty mineral, mineral-based and synthetic mineral products. The Company's principal products are: precipitated calcium carbonate ("PCC"), used primarily by paper producers in the alkaline papermaking process; monolithic and shaped refractory materials, used primarily by the steel, cement and glass industries; and natural mineral and mineral-based products, used primarily in the building materials, steel, paints and coatings, glass, ceramic, polymers, food and pharmaceutical industries. The Company emphasizes research and development. The level of the Company's research and development spending as well as its history of developing and introducing technologically advanced new products has enabled the Company to anticipate and satisfy changing customer requirements and create new market opportunities through new product development and product application innovations.

PCC Products and Markets

PCC Products.

Paper can be produced under either acid or alkaline conditions. Historically, in North America, paper was primarily produced using acid technologies. In the mid-1980's, North American producers of uncoated wood-free paper encountered significant increases in the cost of wood fiber and other materials, such as titanium dioxide, which are necessary in greater quantities in the acid process. In response, these paper producers sought to convert their paper production to lower-cost alkaline-based technologies, which permit mineral fillers to be substituted for more expensive wood fiber and pigments used to increase brightness, resulting in significant cost savings. As a result of these conditions, the Company believed that a significant opportunity existed to provide paper producers with a high performance filler product that could facilitate the transition to the alkaline papermaking process. The Company's four-year development effort culminated in the construction of the first commercial satellite PCC plant at the Wisconsin Rapids paper mill of Consolidated Papers, Inc. in 1986. The Company believes the competitive advantages offered by the improved economics and superior optical characteristics of the paper produced using the PCC products manufactured by the Company's satellite PCC plants resulted in the rapid growth in the number of the Company's satellite PCC plants among uncoated wood-free paper producers. The Company has also built satellite PCC plants that replace ground calcium carbonate. In addition, the Company has constructed satellites for coating PCC and more recently satellites for the use of its patented acid-tolerant PCC technology. This technology provides higher performance qualities to manufacturers of groundwood paper like newsprint, magazine and catalogue papers. The following table shows the number of satellite PCC plants operated by the Company at the end of the periods indicated. For information with respect to the locations of the Company's satellite PCC plants at December 31, 1997, see "Item 2--Properties" below.

Satellite PCC Plants at End of Quarter

Calendar Year	First	Second	Third	Fourth
1993	30	31	31	34
1994	36	36	36	36
1995	37	37	38	38
1996	41	42	43	44
1997	45	46	48	49

In 1997, the Company commenced operations at five new satellite PCC $\ensuremath{\mathsf{plants}}$

in five different countries. These satellite PCC plants are located in the United States, Slovakia, Indonesia, Finland and South Africa.

During 1997, the Company signed agreements to construct six new satellite plants--four of which are now under construction. The satellite PCC plants under construction are located in France, Germany and the United States.

1

The Company staffs, operates and maintains all of its satellite PCC plants and owns the related technology used at its satellite PCC plants.

The Company and its paper mill customers enter into long-term agreements, generally ten years in length, pursuant to which the Company supplies substantially all of a customer's precipitated calcium carbonate filler requirements. The Company is generally permitted to sell to third parties PCC produced at a satellite plant in excess of the host paper mill's requirements. The Company's satellite PCC plants and customers are listed in Item 2 -- "Properties."

The Company currently manufactures several customized PCC product forms through proprietary processes at its satellite PCC plants, each designed to provide optimum brightness, opacity, bulking and/or paper strength. While focusing on expanding sales at its existing satellite PCC plants, the Company's research and development and technical service staffs have pioneered a number of ancillary new technologies. These include acid-tolerant PCC, which allows PCC to be introduced to the large wood-containing segment of the printing and writing papers market, and production of PCC crystal morphologies for coating paper. The Company expects that research and development in coating technology will open up a larger market for PCC that will build slowly as paper companies begin to include PCC in their proprietary coating formulations.

The Company also produces a full range of slurry and dry PCC products sold on a merchant basis. In the paper industry, the Company's merchant PCC is used as a coating pigment and as a filler in the production of coated and uncoated wood-free printing and writing papers. The Company sells surface-treated and untreated grades of PCC to the polymers industry for use in rigid polyvinyl chloride products (pipe and profiles), thermoset polyesters (automotive body parts), sealants (automotive and construction applications), adhesives, printing inks and coatings. The Company's PCC is used by the food and pharmaceutical industries as a source of bio-available calcium in tablets and foodstuffs, as a buffering agent in tablets, and as a mild abrasive in toothpaste. The Company also sells PCC on a merchant basis to the paints and coatings industry.

The Company's PCC product line net sales were \$299.9 million, \$263.1 million, \$226.6 million for the years ended December 31, 1997, 1996 and 1995, respectively. See "Item 7--Management's Discussion and Analysis of Financial Condition and Results of Operations."

Key Markets.

The principal market for the Company's satellite PCC products is the paper industry. The Company also produces PCC on a merchant basis for sale to companies in the polymers, food and pharmaceutical and paints and coatings industries.

Sales of PCC to the paper industry have accounted for a steadily increasing percentage of the Company's total sales in the past five years, a trend the Company expects to continue. The Company's sales of PCC have been and are expected to continue to be made to the printing and writing papers segment of the paper industry. The Company's products are currently used primarily by paper mills producing uncoated wood-free paper.

North American Wood-Free Printing and Writing Papers. In the mid-1980's, North American producers of uncoated wood-free paper encountered significant increases in the cost of wood fiber and other materials. In response, these paper producers sought to convert their paper production to lower-cost alkaline-based technologies, thereby resulting in significant cost savings. Ground chalk has historically been used by European alkaline-based paper producers as a low-cost substitute for wood fiber. In North America, however, the use of ground chalk is not practical as there is no naturally occurring chalk.

PCC must compete with other fillers, such as ground limestone and clay, on a cost-effective basis. PCC costs more to produce than ground limestone or clay since the production process is inherently more complex.

Limestone is mined, crushed and ground; clay is mined, ground and perhaps calcined. PCC is manufactured via a chemical process which takes lime (which itself is produced by calcining a mined product, limestone), dissolves it, combines it with carbon dioxide and separates the final product. Drying and transportation can add over \$100 per ton to the product cost. If shipped wet, additional freight costs would be incurred. The Company believes that in many cases this added cost makes PCC from merchant plants non-cost-competitive with other fillers.

2

In response to these conditions and as a result of a concentrated research and development effort, the Company developed the satellite PCC plant concept. The Company's satellite PCC plants have facilitated the conversion of a substantial percentage of the North American uncoated wood-free printing and writing paper producers to alkaline papermaking. The Company estimates that during 1997, more than 80% of North American wood-free paper was produced employing alkaline technology.

Presently, the Company owns and operates 34 commercial satellite PCC plants located at paper mills that produce wood-free printing and writing papers in North America. Based upon its experience, the Company anticipates that the aggregate volume of PCC used by these 34 paper mills will increase. The Company also estimates that a few additional North American paper mills producing wood-free paper are both suitable for conversion to the more economical, and in the Company's view, more ecologically sound, alkaline method and large enough to support a satellite PCC plant.

The Company is also placing increased emphasis on the use of PCC to coat paper. PCC increases gloss and printability of the sheet while decreasing paper's cost per ton. The coating market is large and the Company believes it will continue to grow at a higher average growth rate than the uncoated market, and therefore provides a substantial market opportunity for the Company. PCC coating products can be produced at satellite PCC plants.

Worldwide Wood-Containing Printing and Writing Papers. To date, the Company's PCC products have primarily been used in wood-free alkaline papermaking processes. The wood-containing segments of the paper industry still generally employ acid papermaking technology. The conversion to alkaline technology by these segments has been hampered by the phenomenon of alkaline darkening, the tendency of wood-containing papers to darken in an alkaline environment. In an attempt to introduce PCC to the wood-containing segments of the paper industry, the Company has developed and patented a process for the manufacture of an acid-tolerant form of PCC (AT[tm] PCC) that provides enhanced brightness and opacity properties without the undesirable darkening phenomenon. During 1997, the Company signed three contracts for the use of its patented acid-tolerant PCC technology which will enable the Company to expand its sales to makers of groundwood paper grades.

The Company believes PCC filler levels for uncoated wood-containing paper generally will be less than those for uncoated wood-free paper. There can be no assurance as to the number of producers of wood-containing paper that will contract with the Company to purchase AT [TM) PCC.

International Wood-Free Printing and Writing Papers. The Company estimates the production of uncoated wood-free printing and writing papers outside of North America that can be served by its satellite PCC operations is approximately the same size (measured in tons of paper produced) as the North American uncoated wood-free paper market currently served by the Company. A number of factors have influenced the acceptance of the Company's satellite PCC technology in foreign markets. Although European wood-free paper producers predominantly use alkaline papermaking processes, PCC is not in prevalent use in this market. Ground chalk is readily available in Europe and commonly used as a low-cost filler product in alkaline systems. In addition, supplies of lime suitable for the manufacture of PCC generally are not available at attractive prices. However, the Company believes that the superior brightness and opacity characteristics offered by its PCC products should allow it to compete with suppliers of ground chalk and other filler products in certain locations in this market. In Latin America and Asia, ground chalk is not readily available, while supplies of lime suitable for PCC production are generally available at attractive prices.

Refractory Products and Markets

Refractory Products.

The Company offers a broad range of monolithic refractory products as well as pre-cast monolithic refractory shapes. Product sales are usually combined with Company-supplied proprietary applications equipment and on-site technical services support. The Company's proprietary applications equipment is used to apply refractory materials to the walls of steel-making furnaces and other high temperature vessels to maintain and extend their lives. Robotic-type shooters, including the Company's proprietary SEQUAD(R) sprayer, allow for remote-controlled applications in steel-making furnaces, as well as in steel ladles and blast furnaces. Since the steel-making industry is characterized by intense price competition, which results in a continuing emphasis by

3

steel mills on increased productivity, the SEQUAD(R) sprayer and the related technologically advanced blast furnace maintenance materials developed in the Company's research laboratories have been well accepted by the Company's customers. These products allow steel makers to improve their performance through, among other things, the application of monolithic refractories to furnace linings while the furnace is at operating temperature, thereby eliminating the need for furnace cool-down periods and steel-production interruption. This also results in a lower overall refractory cost to steel makers per ton of steel produced. The Company's experienced technical service staff and advanced applications equipment provide greater assurance that the desired productivity objectives of customers are achieved. In addition, laser measurement of refractory wear is conducted by the Company's technicians in certain plants. The Company believes that these services, together with its refractory product offerings, provide the Company with a strategic marketing advantage.

The Company has patented a new technology in the refractory product line. The KILNTEQ(R) refractory technology system is a new concept for lining the interior of lime and cement kilns. The KILNTEQ(R) system calls for lining the huge, tube-like kilns with refractory material in a polygonal shape. This shape, rather than the circular linings now generally used, is believed to increase raw material throughput and to decrease energy use.

The Company's refractory products are sold in the following three product groups:

Steel Furnace Refractories. The Company sells gunnable monolithic refractory products to users of basic oxygen furnaces and electric furnaces for application on furnace walls to prolong the life of furnace linings.

Specialty Products for Iron and Steel. The Company sells monolithic refractory materials and pre-cast refractory shapes for iron and steel ladles, vacuum degassers, continuous casting tundishes, blast furnaces and reheating furnaces. The Company is one of the few monolithic refractory companies offering a full line of materials to satisfy all continuous casting refractory applications. This full line consists of gunnable, sprayable, trowellable and vibratable materials as well as refractory shapes and permanent linings.

The Company uses proprietary processes to produce a number of products

that are technologically enhanced. These include calcium metal, metallurgical wire and a number of metal treatment specialties. The Company manufactures calcium metal at its Canaan, Connecticut facility and purchases calcium in international markets. Calcium metal is used in the manufacture of batteries and magnets. The Company sells metallurgical wires and fluxes for use in the production of steel. The Company's metallurgical wires are injected into molten steel to reduce imperfections. The steel produced is used for high-pressure pipeline and other premium-grade steel applications. The Company's fluxes are mineral products used to help purify steel.

Non-Steel Refractory Products. This product line encompasses refractory shapes and linings that are sold to the glass, cement, aluminum, petrochemical and other non-steel industries.

The Company's refractory net sales were \$195.9 million, \$192.2 million and \$202.5 million for the years ended December 31, 1997, 1996 and 1995, respectively. See "Item 7--Management's Discussion and Analysis of Financial Condition and Results of Operations."

Key Markets.

The principal market for the Company's refractory products is the steel industry. For the year ended December 31, 1997, approximately 90% of the Company's sales of refractory products was to the steel industry. Raw steel production on a worldwide basis has shown only modest growth in the past ten years. However, management believes that certain trends in the steel-making industry will continue to provide growth opportunities for the Company. These trends include the development of improved manufacturing processes such as continuous casting, the need of steel producers for increased productivity and higher grade refractories as well as a modest shift toward electric steel making.

The use of the continuous casting method, measured in tons of steel cast on a worldwide basis, has more than doubled in the past ten years. The need for high quality refractory products for this process has generated new market opportunities for the Company's refractory products. Product offerings for continuous casting include

4

advanced maintenance coatings and original linings for tundishes and robotic applications equipment. The Company believes that the trend toward electric steel-making mini-mills and away from integrated steel mills has facilitated the acceptance of new refractory products and technologies. Mini-mills require a broad line of refractory products and certain metallurgical products that are also produced by the Company. Processed Mineral Products and Markets

The Company mines and processes natural mineral products, limestone and talc, and manufactures lime, a mineral-based product. The Company also produces a number of technology-based products, including pyrolytic graphite.

Over 60% of the Company's sales of limestone in 1997 were filler-grade material, i.e., limestone having sufficient purity and color to enable it to be utilized as a pigment and filler in building materials, paints and coatings, polymers and joint compounds. The other component of this product line represents sales of limestone aggregate, a commodity business.

Talc is mined, beneficiated and processed at the Company's Barretts site, located near Dillon, Montana, and is sold worldwide in finely ground form for paints and coatings, ceramics and polymers applications. Because of the exceptional chemical purity of the Barretts ore, virtually all of the automotive catalytic converter ceramic substrates manufactured in the United States, Japan and Western Europe utilize the Company's Barretts Limestone and talc are mined, crushed, screened and beneficiated and, on occasion, subjected to surface chemical modification.

Lime, a mineral-based product, is sold commercially to the steel and chemical industries and used as a raw material for the manufacture of PCC at the Company's Adams, Massachusetts, facility.

The Company's net sales of processed mineral products were \$106.5 million, \$100.7 million and \$95.4 million for the years ended December 31, 1997, 1996 and 1995, respectively. See "Item 7--Management's Discussion and Analysis of Financial Condition and Results of Operations."

In March 1998, the Company entered into a Memorandum of Understanding with another company for the sale of its Limestone Midwest business. Based at the Port Inland mine in Gulliver, MI, Limestone Midwest is the Company's only business unit competing for sales of limestone aggregate, a commodity business.

The Company's natural mineral products are supported by the Company's limestone reserves, which the Company believes are strategically located in the western and eastern parts of the United States, and talc reserves, which the Company believes are of outstanding quality. The Company estimates these reserves, at current usage levels, to be from 40 to over 70 years at its limestone production facilities and in excess of 40 years at its talc production facilities.

Marketing and Sales

The Company principally relies on its worldwide direct sales force to market its products. The direct sales force is augmented by worldwide technical service teams, employees who are familiar with the industries to which the Company markets its products, and several regional distributors. The Company's sales force works closely with the Company's technical service staff to solve technical and other issues faced by the Company's customers. The Company's technical service staff assists North American paper producers in their conversion to alkaline papermaking and provides post-conversion assistance to customers. In addition, the Company's technical service personnel advise with respect to the use of monolithic refractory materials and, in many cases, apply the refractory materials to the customers' furnaces and other vessels pursuant to service agreements. Continued use of skilled technical service teams is an important component of the Company's business strategy.

The Company works closely with its customers to ensure that the customers' requirements are satisfied and often trains and supports customer personnel in the use of the Company's products. The Company conducts domestic marketing and sales from its headquarters in New York and from regional sales offices in the eastern and western United States. The Company's international marketing effort is directed from Brussels, Belgium;

5

Tokyo, Japan; and Singapore. The Company believes its refractory manufacturing facilities are strategically located to satisfy the stringent delivery requirements of the steel industry. The Company also believes that its worldwide network of sales personnel and manufacturing facilities facilitates the international expansion of its satellite PCC operations.

Raw Materials

The Company uses lime in the production of PCC, and is a significant purchaser of lime in North America. Generally, lime is purchased from unaffiliated suppliers located in close geographic proximity to the Company's satellite PCC plants, pursuant to long-term contracts, and to a lesser extent, supplied by the Company from its Adams, Massachusetts, facility. If there were to be an interruption in the supply of lime from any particular lime supplier to the Company, the Company believes that it would be able to obtain suitable lime from alternate sources, but at an increased cost (resulting primarily from increased transportation costs). Pursuant to the Company's contracts with its paper mill customers, this increased cost would be effectively assumed by the host paper mills. Accordingly, the Company believes that alternative sources of lime will be available in the event of supply interruptions at effectively the same cost to the Company. In Europe, supplies of lime suitable for the manufacture of PCC are generally available but not at prices that are as attractive as those prevailing in North America.

The principal raw materials used in the Company's monolithic refractories products are refractory-grade magnesia and various forms of aluminosilicates. The Company also purchases calcium metal, calcium silicide, graphite, calcium carbide and various alloys for use in the production of metallurgical wires and uses lime and aluminum in the production of calcium metal. The Company purchases a significant portion of its magnesite requirements from sources in the People's Republic of China. During 1994, the Ministry of Foreign Trade and Economic Cooperation of the People's Republic of China instituted a system under which Chinese exporters must purchase, through competitive bidding, licenses to export specified commodities, including magnesia. The exporters holding such licenses generally attempt to pass the cost of the license fee on to their customers. This license fee was increased significantly as of January 1995, resulting in turn in increased worldwide prices for Chinese magnesia. The Company had initiated price increases in refractory products and had located lower-cost alternative sources of supply of magnesia. However, the price increases were not sufficient to fully offset the higher cost of magnesia, and thus far alternative sources of supply of magnesia have been limited. Since the second half of 1996, worldwide prices of Chinese magnesia have decreased from peak prices and appear to have stabilized.

Except as noted above, the Company believes that it could obtain adequate supplies from alternate sources in the event of supply interruptions of its raw material requirements.

Competition

The Company is continually engaged in efforts to develop new products and technologies and refine existing products and technologies in order to remain competitive and, in certain circumstances, to position itself as a market leader.

With respect to its PCC products, the Company competes for sales to the paper industry based in large part upon technological know-how, patents and processes that allow the Company to deliver PCC that the Company believes imparts superior brightness and opacity properties to paper on an economical basis. The Company is the leading manufacturer and supplier of PCC to the North American paper industry. It competes with certain companies both in North America and abroad that sell PCC or offer alternative products for use in paper filling and coating applications. Competition with respect to the Company's PCC sales is based upon price, availability of materials and optical characteristics such as brightness, opacity and paper strength.

With respect to the Company's refractory products, competitive conditions vary by geographic region. Competition is based upon price, the performance characteristics of the product (including strength, quality and consistency and ease of application) and the availability of technical support. The Company competes with different companies in different geographic areas and in separate aspects of its product line. The Company competes in sales of its limestone and talc based primarily upon product quality and the geographic location of the purchaser.

Research and Development

Many of the Company's product lines are technology-based, and the Company's business strategy for continued growth in sales and profitability depends, to a large extent, on the continued success of its research and development activities. Among the significant achievements of the Company's research and development effort have been the satellite PCC plant concept, acid-tolerant PCC, production of PCC crystal morphologies for coating paper and the SEQUAD(R) sprayer, the KILNTEQ(R) system and numerous new refractory products.

The Company maintains its main research facilities in Bethlehem and Easton, Pennsylvania, with more than 170 employees engaged in research and development. It also has smaller research and development facilities in Finland, Ireland and Japan. Expertise in inorganic chemistry, crystallography and structural analysis, fine particle technology and other aspects of materials science applies to and supports all of the Company's product lines.

For the years ended December 31, 1997, 1996 and 1995, the Company expended approximately \$20.4 million, \$19.7 million and \$19.7 million, respectively, on research and development. The Company believes, based upon its review of publicly available information regarding the reported research and development spending of certain of its competitors, that its investment in research and development as a percentage of net sales exceeds comparable industry norms. The Company's research and development spending for 1997 approximated 3.4% of net sales.

Patents and Trademarks

The Company owns or has the right to use approximately 390 patents and approximately 700 trademark registrations related to its business. The Company believes that its rights under its existing patents, patent applications and trademarks are of value to its operations, but no one patent, application or trademark is material to the conduct of the Company's business as a whole.

Insurance

The Company maintains liability and property insurance and insurance for business interruption in the event of damage to its production facilities and certain other insurance covering risks associated with its business. The Company believes such insurance is adequate for the operation of its business. From time to time various types of insurance for companies in the specialty minerals business have been very expensive or, in some cases, unavailable. There is no assurance that in the future the Company will be able to maintain the coverage initially obtained or that the premiums therefore will not increase substantially.

Employees

At December 31, 1997, the Company employed approximately 2,250 persons, of whom approximately 650 were employed by the Company outside the United States. The Company believes its relationships with its employees are good.

The Company's operations are subject to federal, state, local and foreign laws and regulations relating to the environment and health and safety. Certain of the Company's operations involve and have involved the use and release of substances that are classified as toxic or hazardous substances within the meaning of these laws and regulations. Environmental operating permits are, or may be, required for certain of the Company's operations and such permits are subject to modification, renewal and revocation. The Company regularly monitors and reviews its operations, procedures and policies for compliance with these laws and regulations. The Company believes its operations are in substantial compliance with these laws and regulations and that there are no violations which should have a material effect on the Company. Despite these compliance efforts, some risk of environmental and other damage is inherent in the operation of the business of the Company, as it is with other companies engaged in similar businesses, and there can be no assurance that material damage will not occur in the future. The cost of compliance with these laws and regulations is not expected to have a material adverse effect on the Company. However, future events, such as changes in or modifications of interpretations of existing laws and regulations or enforcement policies or further investigation or evaluation of the potential health hazards of certain products may give rise to additional compliance and other costs that could have a material adverse effect on the Company. The Company has a right of indemnification for certain potential environmental, health and safety liabilities under agreements entered into between the Company and Pfizer Inc ("Pfizer") or Quigley Company, Inc. ("Quigley"), a wholly-owned subsidiary of Pfizer, in connection with the reorganization. See "Certain Relationships and Related Transactions" in Item 13.

Cautionary Factors That May Affect Future Results

The disclosure and analysis set forth in this report contains certain forward-looking statements, particularly statements relating to future actions, performance or results of current and anticipated products, sales efforts, expenditures, and financial results. From time to time, the Company also provides forward-looking statements in other publicly-released materials, both written and oral. Forward-looking statements provide current expectations or forecasts of future events such as new products, revenues and financial performance, and are not limited to describing historical or current facts. They can be identified by their use of words such as "plans," "expects," "anticipated," "will" and other words and phrases of similar meaning.

Forward-looking statements are necessarily based on assumptions, estimates and limited information available at the time they are made. A broad variety of risks and uncertainties, both known and unknown, as well as the inaccuracy of assumptions and estimates, can affect the realization of the expectations or forecasts in these statements. Consequently, no forward-looking statement can be guaranteed. Actual future results may vary materially.

The Company undertakes no obligation to update any forward-looking statements. You should refer to the Company's subsequent filings under the Securities Exchange Act of 1934 for further disclosures.

As permitted by the Private Securities Litigation Reform Act of 1995, the Company is providing the following cautionary statements which identify factors that could cause the Company's actual results to differ materially from historical and expected results. It is not possible to foresee or identify all such factors. You should not consider this list an exhaustive statement of all potential risks, uncertainties and inaccurate assumptions.

- -- Historical Growth Rate

Continuance of the historical growth rate of the Company depends upon a number of uncertain events, including the outcome of the Company's strategies of increasing its penetration into geographical markets such as Asia, Latin America and Europe; increasing its penetration into product markets such as the market for paper coating pigments and the market for groundwood paper pigments; increasing sales to existing PCC customers by increasing the amount of PCC used in each ton of paper produced; and developing, introducing and selling new products. Difficulties, delays or failures of any of these strategies could cause the future growth rate of the Company to differ materially from its historical growth rate.

8

- -- Contract Renewals

The Company's sales of PCC are predominantly pursuant to long-term agreements, generally ten years in length, with paper mills at which the Company operates satellite PCC plants. The terms of many of these agreements have been extended, often in connection with an expansion of the satellite PCC plant. To date, the Company's experience with extensions and renewals of its satellite PCC agreements has been favorable. There is no assurance, however, that this will continue to be the case. Failure of a number of the Company's customers to renew existing agreements could cause the future growth rate of the Company to differ materially from its historical growth rate, and could have a substantial adverse effect on the Company's results of operations.

-- Litigation; Environmental Exposures

The Company's operations are subject to international, federal, state and local environmental, tax and other laws and regulations, and potentially to claims for various legal, environmental and tax matters. The Company is currently a party to various litigation matters, including the Eaton litigation which has previously been disclosed in the Management's Discussion and Analysis sections of the Company's most recent filings under the Securities Exchange Act of 1934. While the Company carries liability insurance which it believes to be appropriate to its businesses, and has provided reserves for such matters which it believes to be adequate, an unanticipated liability arising out of such a litigation matter or a tax or environmental proceeding could have a material adverse effect on the Company's financial condition or results of operations.

- -- New Products

The Company is engaged in a continuous effort to develop new products in all of its product lines. Difficulties, delays or failures in the development, testing, production, marketing or sale of such new products could cause its actual results of operations to differ materially from expected results.

- -- Competition; Protection of Intellectual Property

Particularly in its PCC and Refractory product lines, the Company competes based in part upon proprietary knowledge, both patented and unpatented. The Company's ability to achieve anticipated results depends in part on its ability to defend its intellectual property against inappropriate disclosure as well as against infringement. In addition, development by the Company's competitors of new products or technologies that are more effective or less expensive than those the Company offers could have a material adverse effect on the Company's financial condition or results of operations.

- -- Risks of Doing Business Abroad

As the Company expands its operations overseas, it faces the increased risks of doing business abroad, including inflation, fluctuations in interest rates and currency exchange rates, nationalization, expropriation, limits on repatriation of funds, unstable governments and legal systems, and other factors. Adverse developments in any of these areas could cause actual results to differ materially from historical and expected results.

- -- Availability of Raw Materials

The Company's ability to achieve anticipated results depends in part on having an adequate supply of raw materials for its manufacturing operations, particularly lime and carbon dioxide for PCC operations and magnesia for refractory operations, and on having adequate access to the ore reserves at its mining operations. Unanticipated changes in the costs or availability of such raw materials, or in the Company's ability to have access to its ore reserves, could adversely affect the Company's results of operations.

Item 2. Properties

Set forth below is the location of, and customer served by, each of the Company's satellite PCC plants at December 31, 1997. Generally, the land on which each satellite PCC plant is located is leased at a nominal amount by

9

the Company from the host paper mill pursuant to a lease, the term of which runs concurrently with the term of the PCC production and sale agreement between the Company and the host paper mill.

Location

Customer

- -----_____ Alabama, Jackson Boise Cascade Corporation Alabama, Mobile Alabama, Selma International Paper Company International Paper Company Georgia-Pacific Corporation Arkansas, Ashdown Brazil, Jacarei Brazil, Jacarei Votorantim Celulose e Papel Brazil, Luiz Antonio Votorantim Celulose e Papel Brazil, Suzano Cia Suzano de Papel e Celulose California, Anderson Simpson Paper Company Canada, Cornwall, Ontario Domtar Inc. Canada, Dryden, Ontario Avenor Inc. Canada, St. Jerome, Quebec Rolland Paper Inc. Canada, Windsor, Quebec Domtar Inc. Finland, Aanekoski(1)Metsa-Serla GroupFinland, Anjalankoski(1)Myllykoski Paper Oy Finland, Lappeenranta(1)(2) Enzo-Gutzeit Group Finland, Tervakoski(1) Enzo-Gutzeit Group France, Saillat Sur Vienne Aussedat Rey (a subsidiary of International Paper Company) PT Indah Kiat Pulp and Paper Corporation Indonesia, Perawang(1) Israel, Hadera Kentucky, Wickliffe Louisiana, Port Hudson American Israeli Paper Mills Westvaco Corporation Georgia-Pacific Corporation American Israeli Paper Mills, Ltd. Maine, Jay International Paper Company Corporativo Copamex, S.A. de C.V. Mexico, Chihuahua Simpson Plainwell Paper Company Michigan, Plainwell (a division of Simpson Paper Company) Michigan, Quinnesec Champion International Corporation Minnesota, Cloquet Potlatch Corporation Minnesota, International FallsBoise Cascade CorporationNew York, OswegoInternational Paper CompanyNew York, TiconderogaInternational Paper CompanyNorth Carolina, PlymouthWeyerhaeuser CompanyThe Mead CorporationThe Mead Corporation North Carolina, FrymouthWeyernaedser CompanyOhio, ChillicotheThe Mead CorporationOhio, West CarrolltonAppleton Papers Inc.Pennsylvania, ErieInternational Paper CompanyPennsylvania, Lock HavenInternational Paper CompanyPoland, KwidzynInternational Paper Company Poland, Kwidzyn International Paper Company Portugal, Figueira da Foz(1) Soporcel - Sociedade Portuguesa de Celulose, S.A. Slovakia, Ruzomberok Slovakia, RuzomberokSeveroslovenske Cululozky a Papierne s.p.South Carolina, EastoverUnion Camp CorporationSouth Africa, Merebank(1)Mondi Paper Company Ltd.

Tennessee, Kingsport Willamette Industries Inc. Texas, Pasadena Simpson Pasadena Paper Company (a division of Simpson Paper Company) Thailand, Tha Toom(1) Advance Agro Public Co. Ltd. Virginia, Franklin Union Camp Corporation Washington, Camas James River Corporation Washington, Longview Weyerhaeuser Company Washington, Wallula Boise Cascade Corporation Wisconsin, Kimberly Repap Wisconsin Inc. (a subsidiary of Repap Enterprises Corp., Inc.) Wisconsin, Park Falls Cross Pointe Paper Corporation Wisconsin, Wisconsin Rapids Consolidated Papers, Inc.

These plants are owned through a joint venture.
 This PCC plant is not located on-site at the paper mill.

10

The Company also owned at December 31, 1997 six plants engaged in the mining, processing and/or production of lime, limestone and talc and directly or indirectly owns or leases approximately 15 refractory manufacturing facilities worldwide. The Company's corporate headquarters, sales offices, research laboratories, plants and other facilities are owned by the Company except as otherwise noted. Set forth below is certain information relating to the Company's plants and office and research facilities.

Location	Facility	Product Line		
United States				
Arizona, Pima County California, Los Angeles	Plant; Quarry (4) Sales Office (1)	Limestone PCC, Lime, Limestone, Talc		
California, Lucerne Valley Connecticut, Canaan	Plant; Quarry Plant; Quarry	Limestone Limestone, Metallurgical Wire/Calcium		
Indiana, Highland	Plant	Monolithic Refractories		
Massachusetts, Adams	Plant; Quarry	Limestone, Lime, PCC		
Michigan, Gulliver	Plant; Quarry (5)	Limestone		
Montana, Dillon	Plant; Quarry	Talc		
New Jersey, Old Bridge	Plant	Monolithic Refractories/ Shapes		
New York, New York	Headquarters (1); Sales Offices (1)	All Company Products		
Ohio, Bryan	Plant	Monolithic Refractories		
Ohio, Dover	Plant	Refractories		
Pennsylvania, Bethlehem	Research Laboratories; Sales Offices	PCC, Lime, Limestone, Talc, Pyrolytic Graphite,		
Pennsylvania, Easton	Research Laboratories; Plant	PCC, Lime, Limestone,Talc Pyrolytic Graphite Refractories, Metallurgical Wire		
Pennsylvania, Slippery Rock	Plant	Refractory Shapes		
International				
Australia, Carlingford Belgium, Brussels	Sales Office (1) Sales Office (1)	Monolithic Refractories Monolithic Refractories/ PCC		
Brazil, Belo Horizonte Brazil, Sao Paulo	Sales Office (1) Sales Office (1)	Monolithic Refractories PCC		
Brazil, Volta Redonda Canada, Lachine	Sales Office (1) Plant	Monolithic Refractories Refractory Shapes		

China, Huzhou	Plant (2)	Monolithic Refractories
Ireland, Cork	Plant; Sales Office (1)	Monolithic Refractories/ Metallurgical Wire
Italy, Brescia	Sales Office; Plant	Monolithic Refractories/ Shapes
Japan, Gamagori	Plant	Monolithic Refractories/ Shapes, Calcium
Japan, Tokyo	Sales Office (1)	Monolithic Refractories/ Shapes, Calcium, PCC, Talc
Mexico, Gomez Palacio	Plant (1)	Monolithic Refractories
Singapore	Sales Office (1)	PCC
Spain, Santander South Africa,	Sales Office (1)	Monolithic Refractories
Pietermaritzburg	Plant	Monolithic Refractories
South Korea, Yangsan	Plant (3)	Monolithic Refractories
South Korea, Seoul	Sales Office (1)	Monolithic Refractories
United Kingdom, Rotherham	Plant	Monolithic Refractories/ Shapes

- (1) Leased by the Company. The facilities in Cork, Ireland are operated pursuant to a 99-year lease, the term of which commenced in 1963. The Company's headquarters and sales offices in New York, New York are held under a lease which expires in 2010.
- (2) This plant is leased through a joint venture.
- (3) This plant is owned through a joint venture.
- (4) This plant is leased to another company.
- (5) In March 1998, the Company entered into a Memorandum of Understanding for the sale of this facility.

11

The Company believes that its facilities, which are of varying ages and are of different construction types, have been satisfactorily maintained, are in good condition, are suitable for the Company's operations and generally provide sufficient capacity to meet the Company's production requirements. Based on past loss experience, the Company believes it is adequately insured in respect of these assets, and for liabilities which are likely to arise from its operations.

Item 3. Legal Proceedings

The Company and its subsidiary, Specialty Minerals Inc., are defendants in a lawsuit, captioned Eaton Corporation v. Pfizer Inc, Minerals Technologies Inc. and Specialty Minerals Inc. which was filed on July 31, 1996 and is pending in the U.S. District Court for the Western District of Michigan. The suit alleges that certain materials sold to Eaton for use in truck transmissions were defective, necessitating repairs for which Eaton seeks reimbursement. While all litigation contains an element of uncertainty, the Company and Specialty Minerals Inc. believe that they have valid defenses to the claims asserted by Eaton in this lawsuit, are continuing to vigorously defend all such claims, and believe that the outcome of this matter will not have a material adverse effect on the Company's consolidated financial position or results of operations.

The Company and its subsidiaries are not party to any other material pending legal proceedings, other than ordinary routine litigation incidental to their business.

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

No matters were submitted to a vote of security holders during the fourth quarter of 1997.

Executive Officers of the Registrant

Set forth below are the names and ages of all Executive Officers of the Registrant, indicating all positions and offices with the Registrant held by each such person, and each such person's principal occupations or employment during the past five years.

Name	Age	Position		
Jean-Paul Valles	61	Chairman of the Board and Chief Executive Officer		
Paul R. Saueracker 56 Vice President of the Company and Pre Specialty Minerals Inc.				
Anton Dulski	56	Vice President of the Company and President, MINTEQ(R) International Inc.		
S. Garrett Gray	59	Vice President, General Counsel and Secretary		
John R. Stack	61	Vice President, Finance and Chief Financial Officer		
Howard R. Crabtree	53	Vice President, Organization & Human Resources		
William A. Kromberg	52	Vice President, Taxes		
Mario J. DiNapoli	62	Controller (to March 31, 1998)		
Michael A. Cipolla	40	Controller (as of April 1, 1998)		
Stephen E. Hluchan	56	Treasurer		

Jean-Paul Valles, Ph.D., has served as Chairman of the Board and a director of the Company since April 1989. He was elected Chief Executive Officer in August 1992. Until the completion of the initial public offering, Dr. Valles served as a Vice-Chairman of Pfizer, a position he had held since March 1992. At Pfizer, Dr. Valles had been responsible for a number of Pfizer's businesses, including, since 1989, the operations that comprise the Company, and had served in a number of other executive positions, including Executive Vice President from 1991 to 1992. Dr. Valles continues to serve as a director of Pfizer. In addition, he is a director of Junior Achievement of New York, Inc. and of The New York Chapter of the French-American Chamber of Commerce in the U.S., Inc., and a member of the American Economic Association and the Financial Executives Institute.

12

Paul R. Saueracker has served as Vice President of the Company and President of Specialty Minerals Inc. since February 1994. Prior to that time, he had been Executive Vice President of Specialty Minerals Inc. since October 1993. Since 1989, he served as Vice President of Marketing and Sales of Specialty Minerals Inc. Mr. Saueracker is a former President of the Pulverized Limestone Division of the National Stone Association and a member of the Technical Association of the Pulp and Paper Industry and the Paper Industry Management Association.

Anton Dulski was appointed President of Minteq International Inc. effective January 1, 1996. Previously, he served as Senior Vice President of Minteq with responsibility for European operations from 1993 to 1995; as Vice President of Minteq with responsibility for sales and marketing in Europe from 1992 to 1993; and as President of Minteq's operations in Japan from 1984 to 1992.

S. Garrett Gray has served as Vice President and Secretary of the Company since April 1989. In August 1992, Mr. Gray was appointed General Counsel of the Company. Prior to August 1992, Mr. Gray served as a member of the legal staff of Pfizer as Assistant General Counsel, since 1989.

John R. Stack has served as Vice President-Finance and Chief Financial Officer of the Company since August 1992. Prior to that time, Mr. Stack was Vice President and Controller of the operations that comprise Specialty Minerals Inc. and Barretts Minerals Inc. from 1987 to August 1992.

Howard R. Crabtree was appointed Vice President-Organization & Human Resources of the Company in January 1997, having served as Vice President-Human Resources since August 1992. Prior to joining the Company, he held a number of positions at Pfizer, including: Vice President Personnel, Medical Devices from January 1992 to August 1992.

William A. Kromberg has served as Vice President-Taxes of the Company since February 1993. From May 1989 to that time, he was Vice President-Taxes of Culbro Corporation, a distributor and manufacturer of consumer and industrial products.

Mario J. DiNapoli has served as Controller of the Company since August 1992. He served as the Director of Finance of the operations that comprise Specialty Minerals Inc. and Barretts Minerals Inc. from January to August 1992. Mr. DiNapoli will retire from the Company as of April 1, 1998.

Michael A. Cipolla will serve as Controller of the Company effective April 1, 1998. He has served as Assistant Corporate Controller since December 1992. Prior to joining the Company, Mr. Cipolla was with KPMG Peat Marwick LLP from 1983; and served as a Senior Manager from 1987.

Stephen E. Hluchan has served as Treasurer of the Company since August 1992. Prior to that time, Mr. Hluchan held the following positions for the operations that comprise Minteq: Controller and Vice President, Planning from January 1992 to August 1992; and Vice President, Strategic Planning and Business Development, May 1989 to January 1992.

13

PART II

Item 5. Market for Registrant's Common Equity and Related Stockholder Matters

The Company's common stock is traded on the NYSE under the symbol "MTX".

Information on market prices and dividends is set forth below:

1997 Quarters	First	Second	Third	Fourth
Market Price Range of Common Stock				
High	42 7/8	40 7/8	44 15/16	46 1/8
Low	34	32 1/8	36 1/8	39 1/2
Close	34 1/4	37 1/4	44 3/4	45 7/16
Dividends paid per common share	\$.025	\$. 025	\$.025	\$.025

1996 Quarters	First	Second	Third	Fourth
Market Price Range of Common Stock				
High	37 3/4	39 3/8	40	41 3/8
Low	30 1/4	33	34 1/8	36 3/8
Close	34 5/8	34 1/4	36 5/8	41
Dividends paid per common share	\$.025	\$.025	\$.025	\$.025

On March 3, 1998, the last reported sale price on the NYSE was 50 per share. As of March 3, 1998, there were approximately 296 holders of record of the common stock.

On January 22, 1998, the Company's Board of Directors declared a quarterly dividend on its common stock of \$.025 per share in respect of the quarter ended December 31, 1997. Subject to satisfactory financial results and declaration by the Board, the Company currently intends to pay quarterly cash dividends on its common stock of at least \$.025 per share. Although the Company believes its historical earnings indicate that this dividend policy is appropriate, it will be reviewed by the Board from time to time in light of the Company's financial condition, results of operations, current and anticipated capital requirements, contractual restrictions and other factors deemed relevant by the Board. No dividend will be payable unless declared by the Board and unless funds are legally available for payment thereof.

On February 26, 1998, the Company's Board of Directors authorized a \$150 million stock repurchase program. The stock will be purchased on the open market from time to time.

14

Item 6. Selected Financial Data

Thousands of Dollars, Excep Per Share Data		1996	1995	1994	1993
Income Statement Data:	¢ < 0.0	¢555 000		¢ 4 7 0 C 0 7	¢400 010
Net sales Cost of goods sold	\$602,335 424,612	•	375,655	\$472,637	· ·
Marketing, distribution and	•	590,545	5/5,055	555,527	302,010
administrative expenses		72,485	70,464	66,533	63,053
Research and development expenses	20.391	19,740	19,658	18,187	16,082
Income from operations	80,228	67,418	58,674	52,590	46,368
Net income	\$ 50,312	\$ 43,097	\$ 39,529	\$ 33,346	\$ 28,973
Earnings per share:					
Basic earnings per share	\$ 2.23	\$ 1.91	\$ 1.75	\$ 1.48	\$ 1.25
				======	======
	A O 1 O	<u> </u>	<u> </u>	A 1 1 C	<u> </u>
Diluted earnings per share	\$ 2.18				•
Weighted average number of					
common shares outstanding					
Basic	22.558	22,621	22,633	22,603	23,186
Diluted		23,132			•
Dividends declared per	,	,	,	,	,
common share	\$ 0.10	\$ 0.10	\$ 0.10	\$ 0.10	\$ 0.10
Balance Sheet Data:					
Working capital	\$132 , 364	\$115 , 540	\$ 86,746	\$135,844	\$112,238
Total assets	741,407		649,144		
Long-term debt	101 , 571	104,900	67,927	83,031	79,030
Total debt	115 , 560		95 , 817		
Total shareholders' equity	\$466 , 997	\$448,250	\$416,153	\$381,098	\$343,005
				======	

15

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

Income and Expense Items As a Percentage of Net Sales

Year Ended December 31,	1997	1996	1995
Net sales	100.0%	100.0%	100.0%
Cost of goods sold	70.5	71.3	71.6
Marketing, distribution and administrative			
expenses	12.8	13.0	13.4
Research and development expenses	3.4	3.6	3.8
Income from operations	13.3	12.1	11.2
Net income	8.4%	7.8%	7.5%
	=====	=====	=====

Overview of 1997 and Outlook

In 1997, the Company adhered to its strategy of expanding its Precipitated Calcium Carbonate ("PCC") product line. The Company commenced operations at five new satellite PCC plants in five different countries (Indonesia, Slovakia, the United States, Finland and South Africa) and signed agreements for construction of six new satellite plants --four of which are now under construction. These satellite PCC plants are located in France, Germany and the United States, and together have production capacity equivalent to approximately seven "satellite units." (A satellite unit is equivalent to annual production capacity of between 25,000 and 35,000 tons of PCC.) The Company has signed three contracts for the use of its patented acid-tolerant PCC technology. This will enable the Company to expand its sales to makers of groundwood paper grades. In addition, the Company expanded several satellite plants at various locations around the world. As a result, sales of PCC as a percentage of the Company's total net sales, which were 37.4% in 1992, had risen to 49.8% by 1997. The Company expects this trend to continue as sales and volume growth of PCC continues to outpace such growth in the Processed Minerals and Refractory product lines.

Presently, the Company operates or has under construction 53 satellite PCC plants in 14 countries worldwide. The Company is optimistic that volume growth will continue in 1998. The Company expects additional expansions at existing satellite PCC plants to occur in 1998 and also expects to sign contracts for additional satellite PCC plants in the United States and abroad.

In 1998, the Company plans to continue its focus on the following growth strategies for the PCC product line:

- -- Continued efforts to increase market penetration in North America, Europe, Latin America, the Pacific Rim and elsewhere.
- -- Continued expansions of the capacity of existing satellite PCC plants in response to increased demand, which is resulting from either increased PCC filler levels in paper or the installation of new paper machines.
- -- Continued research and development and marketing efforts of acidtolerant PCC, coating PCC and other products.

However, there can be no assurance that the Company will achieve success in implementing any one or more of these strategies.

The Company's sales of PCC are predominantly pursuant to long-term agreements, generally ten years in length, with paper mills at which the Company operates satellite PCC plants. The terms of many of these agreements have been extended, often in connection with an expansion of the satellite PCC plant. To date, the Company's experience with extensions and renewals of its satellite PCC agreements has been favorable. There is no assurance, however, that these contracts will be renewed prior to or at their respective expiration dates.

The Company will continue to emphasize specialty products in its Refractory

product lines and commercialize products, processes and equipment through research and development efforts.

As the Company continues to expand its operations overseas, it faces inherent risks of doing business abroad, including exchange rate fluctuations, nationalization, expropriation, limits on repatriation of funds and other factors. In addition, the Company's performance depends to some extent on that of the industries it serves, particularly the paper, steel and construction industries.

16

The recent exchange rate movements and economic problems in Southeast Asia are an indication of foreign business risks experienced by multinational corporations. However, the Company's Asian operations are a minor part of its overall business. In 1997, they represented approximately 7% of total sales, while Japan and Australia accounted for about 70% of total Asian sales.

Continued uncertainties in Thailand, Indonesia and South Korea could have adverse repercussions in other parts of Asia and conceivably in Europe and North America.

Results of Operations

Net Sales					
In Millions	1997	Growth	1996	Growth	1995
Net sales	\$602.3	8.3%	\$556.0	6.0%	\$524.5

Worldwide net sales in 1997 increased 8.3% over the previous year to \$602.3 million. Higher volumes in the PCC, Processed Minerals, and Refractory product lines were responsible for the increase in sales growth. The stronger U.S. dollar had an unfavorable impact of approximately \$11.3 million (or 2 percentage points) on sales growth. In 1996, worldwide net sales increased 6.0% over the prior year to \$556.0 million. This increase was primarily attributable to growth in the PCC and Processed Minerals product lines.

Worldwide net sales of PCC in 1997 increased 14.0% to \$299.9 million from \$263.1 million in the prior year. This increase was primarily attributable to the commencement of operations at five new satellite PCC plants, located in Indonesia, Slovakia, the United States, Finland and South Africa. In addition, a full year of operations at several satellite PCC plants that began operating in 1996 and volume increases generated by the Company's long-standing satellite PCC plants also contributed to the sales growth in 1997. Foreign exchange had an unfavorable impact of approximately \$4.3 million on sales growth. PCC sales in 1996 increase 16.1% to \$263.1 million from \$226.6 million in 1995. This increase was primarily attributed to the start-up of operations at six new satellite plants that began operations during 1996 and expansion of production capacity at several locations.

Net sales of Processed Minerals increased 5.8% to \$106.5 million in 1997 and rose 5.6% to \$100.7 million in 1996. The sales growth in both years was primarily attributable to higher volumes.

Net sales of Refractory Products in 1997 increased 1.9% to \$195.9 million from \$192.2 million in the prior year. Excluding the impact of foreign exchange, sales growth was 5.6%. Strategic replacement of commodity products with specialty products and systems dramatically increased the profitability of this product line. In 1996, net sales of Refractory Products decreased 5.1% from the prior year while profitability increased significantly due to continued emphasis on higher margin specialty products. The decrease in Refractory product sales was primarily attributable to volume declines and unfavorable foreign exchange rates. Net sales in the United States in 1997 increased 8.2% to \$414.4 million from \$383.0 million in 1996. This increase was attributable to the growth in the PCC and Processed Minerals product lines. Foreign sales in 1997 increased 8.7% to \$187.9 million, primarily as a result of the continued international expansion of the Company's PCC product line. In 1996, net sales in the United States were 6.3% higher than in the prior year due to growth in the PCC and Processed Minerals product lines. Foreign sales in 1996 were 5.3% higher than in the prior year, primarily due to the international expansion of the Company's PCC product line.

Operating Costs and Expenses	5				
In Millions	1997	Growth	1996	Growth	1995
Cost of goods sold	\$424.6	7.1%	\$396.3	5.5%	\$375.7
Marketing, distribution					
and administrative	\$ 77.1	6.4%	\$ 72.5	2.9%	\$ 70.5
Research and development	\$ 20.4	3.3%	\$ 19.7	0.4%	\$ 19.7

Cost of goods sold was 70.5% of sales. This ratio was lower than the prior year and was primarily attributable to improved profitability in the Refractory product line. Cost of goods sold in 1996 was 71.3% of sales which was slightly lower than the prior year. This was also attributable to the improved profitability of the Refractory product lines.

Marketing, distribution and administrative costs increased 6.4% to \$77.1 million and were 12.8% of sales, a slight reduction from the 1996 ratio. In 1997, the Company recorded a \$1.6 million provision for loss as guarantor of indebtedness of a company which was the subject of an involuntary bankruptcy petition under Chapter 7 of the U.S. Bankruptcy Code. In addition, the Company recognized a gain of approximately \$1.4 million related to the sale of property in Japan. Such non-recurring items are included in marketing, distribution and administrative expenses. In 1996, marketing, distribution and administrative costs increased 2.9% to \$72.5 million and were 13.0% of sales.

17

Research and development expenses during 1997 increased 3.3% to \$20.4 million and represented 3.4% of sales, a slight reduction from the 1996 ratio. This reduction reflects a more efficient use of resources due to the increasing worldwide infrastructure which allows the Company to support trials and new plants at a lower cost while continuing its commitment to research, particularly in the PCC product line. In 1996 and 1995 research and development spending was \$19.7 million.

Income from Operations					
In Millions	1997	Growth	1996	Growth	1995
Income from operations	\$80.2	19.0%	\$67.4	14.9%	\$58.7

Income from operations in 1997 increased 19.0% to \$80.2 million from \$67.4 million in 1996. This increase was due primarily to solid growth in the PCC product line and improved profitability in the Refractory product lines. This profitability occurred because of the successful implementation of the Company's strategy of introducing high-value, innovative products. Operating profits were negatively impacted by startup costs associated with the five new satellite PCC plants and some weakness in the Processed Minerals product line, specifically in talc products. In 1996, income from operations rose 14.9% to \$67.4 million from \$58.7 million in 1995. This growth was achieved through higher sales volumes in the PCC product line, greater profitability in the Refractory product lines and an overall decrease in costs and expenses. Operating profits in 1996 were negatively impacted by the higher cost of magnesia and startup costs associated with the six new satellite PCC plants.

Non-Operating Deductions					
In Millions	1997	Growth	1996	Growth	1995
Non-operating deductions,					
net	\$(8.0)	67.7%	\$(4.8)	615.5%	\$(0.7)

Non-operating deductions in 1997 increased due to foreign exchange losses and higher net interest expense which resulted from a reduction in capitalized interest costs. These deductions were partially offset by higher interest income. The reduction in capitalized interest was due to lower levels of capital spending in the first nine months of 1997. Gross interest expense decreased 2.6% from the prior year to \$8.2 million. The foreign exchange losses were approximately \$1.7 million and occurred primarily in the joint ventures in Thailand, Indonesia and Korea. Interest expense increased in 1996 primarily as a result of higher interest costs associated with additional borrowings. Interest income and other income were significantly higher in 1995 due to higher levels of cash-on-hand and foreign exchange gains, respectively.

Provision for Taxes on Income					
In Millions	1997	Growth	1996	Growth	1995
Provision for taxes on income	\$23.1	18.6%	\$19.5	3.4%	\$18.9

The effective tax rate was 32.0% in 1997. In 1996, higher depletion and utilization of foreign tax credits decreased the effective tax rate to 31.1%; down 1.4 percentage points from the effective tax rate in 1995.

Minority Interests	1007		1000		1005
In Millions	1997	Growth	1996	Growtn	1995
Minority interests	\$(1.2)	N.A.	\$	N.A.	\$(0.4)

Although the Company's consolidated joint ventures reflected profitable income from operations, they reported a net loss in 1997 due primarily to the aforementioned foreign exchange losses in Thailand, Indonesia and Korea. In 1996, foreign exchange had a minimal impact on these joint ventures.

Net Income					
In Millions	1997	Growth	1996	Growth	1995
Net income	\$50.3	16.7%	\$43.1	9.0%	\$39.5

Net income increased 16.7% in 1997 to \$50.3 million. In 1996, net income increased 9.0% to \$43.1 million.

Liquidity and Capital Resources

The Company's financial position remained strong during 1997. Cash flows in 1997 were provided principally from operations and were primarily applied to fund \$77.3 million of capital expenditures. In addition, the Company remitted its required per annum principal payment of \$13 million under the Company's Guarantied Senior Notes due June 11, 2000 and reduced its short-term debt. The Company also retired \$7.3 million of Industrial Development Bonds due 2009. Cash provided from operating activities was the primary source of liquidity and amounted to \$120.6 million in 1997, \$69.9 million in 1996 and \$58.3 million in 1995.

18

Not Incomo

The Variable Fixed Rate Industrial Development Revenue Bonds due April 1, 2012 are tax-exempt 15-year instruments and were issued on April 1, 1997 to finance the construction of a PCC plant in Jackson, Alabama. The bonds bear interest at either a variable rate or fixed rate, at the option of the Company. Interest is payable semi-annually under the fixed rate option and

monthly under the variable rate option. The Company has selected the variable rate option on these borrowings and the average interest rate was approximately 4%.

On August 4, 1997, the Company redeemed \$1,455,000 of the Variable/Fixed Rate Industrial Development Revenue Bonds due April 1, 2012. This represented the unused portion of the original bond issuance proceeds received on April 1, 1997 to finance the construction of a PCC plant in Jackson, Alabama.

The Variable/Fixed Rate Industrial Development Revenue Bonds due August 1, 2012 are tax-exempt 15-year instruments that were issued on August 1, 1997 to finance the construction of a PCC plant in North America. The bonds bear interest at either a variable rate or fixed rate, at the option of the Company. Interest is payable semi-annually under the fixed rate option and monthly under the variable rate option. The Company has selected the variable rate option on these borrowings and the average interest rate was approximately 4%.

On July 24, 1996, through a private placement, the Company issued \$50 million of 7.49% Guaranteed Senior Notes due July 24, 2006. The proceeds from the sale of the notes were used to refinance a portion of the short-term commercial bank debt outstanding. No required principal payments are due until July 24, 2006. Interest on the notes is payable semi-annually.

On February 26, 1998, the Company's Board of Directors authorized a \$150 million stock repurchase program. The stock will be purchased on the open market from time to time.

In March 1998, the Company entered into a Memorandum of Understanding with another company for the sale of its Limestone Midwest business. Based at the Port Inland mine in Gulliver, MI, Limestone Midwest is the Company's only business unit competing for sales of limestone aggregate, a commodity business. Sales for Limestone Midwest were approximately \$20.8 million in 1997. The Company does not expect any significant gain or loss to result from the sale of these operations.

The Company has also entered into a long-term lease of its Pima County, Arizona limestone facility with the Georgia Marble Company. Sales for this facility in 1997 were approximately \$1.5 million.

The Company has available approximately \$110 million in uncommitted, shortterm bank credit lines, none of which were in use at December 31, 1997. The 1996 interest rate on the \$12.0 million borrowed from these short-term bank credit lines was 6.93%. The Company anticipates that capital expenditures for 1998 will be approximately \$90 million, principally related to the construction of satellite PCC plants, expansion projects at existing satellite PCC plants and other opportunities that meet the strategic growth objectives of the Company. The Company expects to meet its long-term financing requirements from internally generated funds, the aforementioned uncommitted bank credit lines and, where appropriate, project financing of certain satellite plants.

Prospective Information and Factors That May Affect Future Results The Securities and Exchange Commission encourages companies to disclose forward-looking information so that investors can better understand a company's future prospects and make informed investment decisions. This annual report contains such forward-looking statements that set out anticipated results based on management's plans and assumptions. Words such as "anticipate," "estimate," "expects," "projects," and words and terms of similar substance used in connection with any discussion of future operating or financial performance identify these forward-looking statements.

realized, although it believes it has been prudent in its plans and assumptions. Achievement of future results are subject to risks, uncertainties and inaccurate assumptions. Should known or unknown risks or uncertainties materialize, or should underlying assumptions prove inaccurate, actual results could vary materially from those anticipated, estimated or projected. Investors should bear this in mind as they consider forward-looking statements. Discussion of certain risks, uncertainties and assumptions follow and are discussed under the heading entitled "Cautionary Factors That May Affect Future Results" in Item 1.

Inflation

Historically, inflation has not had a material adverse impact on the Company. The contracts pursuant to which the Company constructs and operates its satellite PCC plants generally adjust pricing to reflect increases in costs resulting from inflation.

Recently Issued Accounting Standards

In the fourth quarter of 1997, the Company adopted the provisions of Statement of Financial Accounting Standards (SFAS) No. 128, "Earnings per Share," which established standards for computing and presenting earnings per share (EPS). The Statement simplifies the standards for computing EPS, replaces the presentation of primary EPS with a presentation of basic EPS and requires dual presentation of basic and diluted EPS on the face of the income statement. This Statement required restatement of all prior-period EPS data presented and did not have a material impact on previously reported EPS data.

In 1998, the Company will adopt SFAS No. 130, "Reporting Comprehensive Income," and SFAS No. 131, "Disclosures about Segments of an Enterprise and Related Information." The Company does not expect adoption of these standards to have a material impact on its Consolidated Financial Statements.

Year 2000 Conversion

Management has initiated an enterprise-wide program to improve the capability of the current information systems and to prepare the Company's computer systems and applications for the year 2000. The Company is presently in the midst of installing systems which are year 2000-compliant and will replace the majority of the legacy information technology systems and applications. It is anticipated that such systems will be installed by the middle of 1999. The Company does not expect the total cost of the year 2000 conversion to have a material adverse effect on the Company's future results of operations and financial condition.

Item 8. Financial Statements and Supplementary Data

 $$\operatorname{The}\xspace$ financial information required by Item 8 is contained in Item 14 of Part IV of this report.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure None.

PART III

Item 10. Directors and Executive Officers of the Registrant

The information concerning the Company's Board of Directors required by this Item is incorporated herein by reference to the Company's Proxy Statement.

The information concerning the Company's Executive Officers required by this Item is incorporated herein by reference to the Section in Part I under the caption "Executive Officers of the Registrant."

The information regarding compliance with Section 16(a) of the Securities Exchange Act of 1934 required by this Item is incorporated herein by reference to the Company's Proxy Statement.

Item 11. Executive Compensation

The information appearing in the Company's Proxy Statement under the caption "Compensation of Executive Officers," excluding the information under the captions "Performance Graph" and "Report of the Compensation and Nominating Committee on Executive Compensation," is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management

The information appearing under the caption "Security Ownership of Certain Beneficial Owners and Management as of January 30, 1998" set forth in the Company's Proxy Statement is incorporated herein by reference.

20

Item 13. Certain Relationships and Related Transactions

The information appearing under the caption "Certain Relationships and Related Transactions" set forth in the Company's Proxy Statement is incorporated herein by reference.

Under the terms of certain agreements entered into in connection with the reorganization, Pfizer and its wholly-owned subsidiary Quigley Company, Inc. ("Quigley") agreed to indemnify the Company against certain liabilities being retained by Pfizer and its subsidiaries including, but not limited to, pending lawsuits and claims, and any lawsuits or claims brought at any time in the future alleging damages or injury from the use, handling of or exposure to any product sold by Pfizer's specialty minerals business prior to the closing of the initial public offering.

Pfizer and Quigley also agreed to indemnify the Company against any liability arising from on-site remedial waste site claims and for other claims that may be made in the future with respect to waste disposed of prior to the closing of the initial public offering. Further, Pfizer and Quigley agreed to indemnify the Company for 50% of the liabilities in excess of \$1 million up to \$10 million that may arise or accrue within ten years after the closing of the initial public offering with respect to remediation of on-site conditions existing at the time of the closing of the initial public offering. The Company will be responsible for the first \$1 million of such liabilities, 50% of all such liabilities in excess of \$1 million up to \$10 million, and all such liabilities in excess of \$10 million. Further, Pfizer and Quigley agreed to indemnify the Company for non-remedial environmental claims resulting from activities or conditions occurring or existing prior to the closing of the initial public offering that are in excess of \$10,000 and that are received within two years after the closing of the initial public offering, exclusive of compliance costs and consequential damages.

PART IV

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

(a) The following documents are filed as part of this Report:

 Financial Statements. The following Consolidated Financial Statements of Minerals Technologies Inc. and Independent Auditors' Report are set forth on pages F-1 to F-18.

> Consolidated Balance Sheet as of December 31, 1997 and 1996 Consolidated Statement of Income for the years ended December 31, 1997, 1996 and 1995

Consolidated Statement of Cash Flows for the years ended December 31, 1997, 1996 and 1995

Consolidated Statement of Shareholders' Equity for the years

ended December 31, 1997, 1996 and 1995 Notes to the Consolidated Financial Statements Independent Auditors' Report

2. Financial Statement Schedule. The following financial statement schedule is filed as part of this Report:

Page

```
Schedule II - Valuation and Qualifying Account S - 1
```

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

- Exhibits. The following exhibits are filed as part of or incorporated by reference into this Report.
- 3.1 Restated Certificate of Incorporation of the Company
- 3.2 Restated By-Laws of the Company (1)
- 3.3 Certificate of Designations authorizing issuance and establishing designations, preferences and rights of Series A Junior Preferred Stock of the Company
- 4.1 Specimen Certificate of Common Stock
- 10.1 Asset Purchase Agreement, dated as of September 28, 1992, by and between Specialty Refractories Inc. and Quigley Company Inc. (1)

10.1(a)	-	Agreement dated October 22, 1992 between Specialty Refractories Inc. and Quigley Company Inc., amending Exhibit 10.1 (2)
10.1(b)	-	Letter Agreement dated October 29, 1992 between Specialty Refractories Inc. and Quigley Company Inc., amending Exhibit 10.1 (2)
10.2	-	Reorganization Agreement, dated as of September 28, 1992, by and between the Company and Pfizer Inc (1)
10.2(a)	-	Letter Agreement dated October 29, 1992 between the Company and Pfizer Inc, amending Exhibit 10.2 (2)
10.3	-	Asset Contribution Agreement, dated as of September 28, 1992, by and between Pfizer Inc and Specialty Minerals Inc. (1)
10.4	-	Asset Contribution Agreement, dated as of September 28, 1992, by and between Pfizer Inc and Barretts Minerals Inc. (1)
10.4(a)	-	Agreement dated October 22, 1992 between Pfizer Inc, Barretts Minerals Inc. and Specialty Minerals Inc., amending Exhibits 10.3 and 10.4 (2)
10.5	-	Form of Employment Agreement, together with schedule relating to executed Employment Agreements
10.6	-	Form of Severance Agreement, together with schedule relating to executed Severance Agreements (3)
10.7	-	Company Employee Protection Plan, as amended August 25, 1994(3)
10.8	-	Company Nonfunded Deferred Compensation and Unit Award Plan for Non-Employee Directors, as amended January 25, 1996 (4)
10.9	-	Company Stock and Incentive Plan, as amended and restated as of May 25, 1995 (5)
10.10	_	Company Retirement Annuity Plan, as amended May 25, 1995 (4)
10.11	-	Company Nonfunded Supplemental Retirement Plan, as amended October 27, 1994 (6)
10.12	-	Company Savings and Investment Plan, as amended December 19, 1994 (7)

- 10.13 Company Nonfunded Deferred Compensation and Supplemental Savings Plan, as amended October 27, 1994 (6)
- 10.14 Rights Agreement, dated as of October 26, 1992, by and between the Company and Chemical Bank, as Rights Agent
- 10.15 Grantor Trust Agreement, dated as of December 29, 1994, between the Company and The Bank of New York, as Trustee (6)
- 10.16 Note Purchase Agreement, dated as of June 28, 1993, between the Company and Metropolitan Life Insurance Company with respect to the Company's issuance of \$65,000,000 in aggregate principal amount of its 6.04% Guarantied Senior Notes Due June 11, 2000; together with a schedule regarding other contracts substantially identical in all material respects to the foregoing (8)
- 10.17 Note Purchase Agreement, dated as of July 24, 1996, between the Company and Metropolitan Life Insurance Company with respect to the Company's issuance of \$50,000,000 in aggregate principal amount of its 7.49% Guaranteed Senior Notes due July 24, 2006 (9)
- 10.18 Indenture, dated July 22, 1963, between the Cork Harbour Commissioners and Roofchrome Limited (1)
- 10.19 Agreement of Lease, dated as of May 24, 1993, between the Company and Cooke Properties Inc (8)
- 21.1 Subsidiaries of the Company
- 23.1 Report and Consent of Independent Auditors
- 27 Financial Data Schedule
- Incorporated by reference to the exhibit so designated filed with the Company's Registration Statement on Form S-1 (Registration No. 33-51292), originally filed on August 25, 1992.
- (2) Incorporated by reference to the exhibit so designated filed with the Company's Registration Statement on Form S-1 (Registration No. 33-59510), originally filed on March 15, 1993.
- (3) Incorporated by reference to the exhibit so designated filed with the Company's Annual Report on Form 10-K for the year ended December 31, 1996.
- (4) Incorporated by reference to the exhibit so designated filed with the Company's Annual Report on Form 10-K for the year ended December 31, 1995.
- (5) Incorporated by reference to the exhibit so designated filed with the Company's Registration Statement on Form S-8 (Registration No. 33-96558), originally filed September 1, 1995.
- (6) Incorporated by reference to the exhibit so designated filed with the Company's Annual Report on Form 10-K for the year ended December 31, 1994.

- (7) Incorporated by reference to the exhibit so designated filed with the Company's Quarterly Report on Form 10-Q for the quarter ended June 29, 1997.
- (8) Incorporated by reference to the exhibit so designated filed with the Company's Quarterly Report on Form 10-Q for the quarter ended July 4, 1993.
- (9) Incorporated by reference to the exhibit so designated filed with the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 1996.
- (b) Reports on Form 8-K There were no reports on Form 8-K filed by the Company during the fourth quarter of 1997.

SIGNATURES

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.

Minerals Technologies Inc.

By: Jean-Paul Valles

Jean-Paul Valles Chairman of the Board and Chief Executive Officer

March 16, 1998

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 in the capacities and on the dates indicated.

SIGNATURE	TITLE	DATE

/s/Jean-Paul Valles			
Jean-Paul Valles	Chairman of the Board and Chief	March 16,	1998
	Executive Officer (principal		
	executive officer) and Director		

/s/John R. Stack

- -----

John R. Stack Vice President-Finance and Chief March 16, 1998 Financial Officer (principal financial officer)

/s/Mario J. DiNapoli

Mario J. DiNapoli Controller and Chief Accounting March 16, 1998 Officer (principal accounting officer)

SIGNATURE	TITLE	DATE
/s/John B. Curcio		
John B. Curcio	Director	March 16, 1998

/s/William L. Lurie		
William L. Lurie	Director	March 16, 1998
/s/Paul M. Meister		
Paul M. Meister	Director	March 16, 1998
/s/Michael F. Pasquale		
Michael F. Pasquale	Director	March 16, 1998
/s/William C. Steere, Jr.		
William C. Steere, Jr.	Director	March 16, 1998
25		
	IES INC. AND SUBSIDIARY C	
	DLIDATED FINANCIAL STATEM	
		Page
Audited Financial Statements:		
Consolidated Balance Sheet a	as of December 31, 1997 a	nd 1996 F-2
Consolidated Statement of Ir December 31, 1997, 1996 and		F-3
Consolidated Statement of Ca December 31, 1997, 1996 and	-	nded F-4
Consolidated Statement of Sh ended December 31, 1997, 199	1 1	the years F-5
Notes to Consolidated Financ Independent Auditor's Report		F-6 F-18

F-1

MINERALS TECHNOLOGIES INC. AND SUBSIDIARY COMPANIES CONSOLIDATED BALANCE SHEET (thousands of dollars)

December	31,
1997	1996

Current assets:		
Cash and cash equivalents	\$41,525	\$15,446
Accounts receivable, less allowance for		
doubtful accounts: 1997\$3,266; 1996\$2,497	108,146	102,494
Inventories	61,166	70,438
Other current assets	15,745	13,902
Total current assets	226,582	202,280
Property, plant and equipment,		
less accumulated depreciation and depletion	500,731	501,067
Other assets and deferred charges	14,094	10,514
Total assets	\$741,407	\$713,861
	=======	=======
Liabilities and Shareholders' Equity		
Current liabilities:		
Short-term debt	\$ 501	
Current maturities of long-term debt	13,488	13,000
Accounts payable	33,163	29,223
Income taxes payable	11,101	6,609
Accrued compensation and related items	15,923	12,673
Other current liabilities	20,042	12,896
Total current liabilities	94,218	86,740
Long-term debt	101,571	104,900
Accrued postretirement benefits	19,746	20,047
Deferred taxes on income	44,664	39,238
Other noncurrent liabilities	14,211	14,686
Total liabilities	274,410	265,611
Commitments and contingent lisbilities		
Commitments and contingent liabilities		
Shareholders' equity:		
Preferred stock, without par value; 1,000,000 shares authorized; none issued		
Common stock at par, \$0.10 par value;		
100,000,000 shares authorized;		
issued 25,370,402 shares in 1997 and		
25,259,876 shares in 1996	2,537	2,526
Additional paid-in capital	139,113	135,676
Retained earnings	412,264	364,210
Currency translation adjustment	(13,456)	11,560
Minimum pension liability adjustment	(1,001)	11,500
Unrealized holding gains	113	163
onrealized nording gains		
	539 , 570	514,135
Less common stock held in treasury, at cost;		
2,830,017 shares in 1997 and 2,660,017 shares		
in 1996	72,573	65,885
Total shareholders' equity	466,997	448,250
-		
Total liabilities and shareholders' equity	\$741,407	\$713 , 861

F-2

MINERALS TECHNOLOGIES INC. AND SUBSIDIARY COMPANIES CONSOLIDATED STATEMENT OF INCOME (thousands of dollars, except per share data)

Year	Ended	Decembe	er 3	1,
1997	-	1996		1995

Net sales	\$602 , 335	\$555 , 988	\$524 , 451
Operating costs and expenses: Cost of goods sold Marketing, distribution and administrative	424,612	396,345	375,655
expenses	77,104	72,485	70,464
Research and development expenses		19,740	
Income from operations	80,228	67,418	58,674
Interest income	1,765	966	1,984
Interest expense	(7,208)	(5,899)	(3,467)
Other income (deductions)		139	
Non-operating deductions, net		(4,794)	
Income before provision for taxes on			
income and minority interests	72,188	62,624	58,004
Provision for taxes on income	23,104	19,488	18,850
Minority interests	(1,228)	39	(375)
Net income	\$ 50,312	\$ 43,097 ======	\$ 39,529
Basic earnings per share	\$ 2.23	\$ 1.91	\$ 1.75
		======	
Diluted earnings per share	\$ 2.18	\$ 1.86	\$ 1.72

F-3

MINERALS TECHNOLOGIES INC. AND SUBSIDIARY COMPANIES CONSOLIDATED STATEMENT OF CASH FLOWS (thousands of dollars)

	Year Ended December 31,		
	1997	1996	1995
Operating Activities Net income Adjustments to reconcile net income to net cash provided by operating activities:	\$50,312	\$43,097	\$39,529
Depreciation, depletion and amortization Loss on disposal of property, plant and	52,936	46,183	40,330
equipment	947	786	243
Deferred income taxes	3,689	3,361	5,925
Other	(681)	(1,500)	(1,818)
Changes in operating assets and liabilities:			
Accounts receivable	(11,195)	(4,699)	(9,406)
Inventories	7,512	(6,977)	(20,505)
Other current assets	(1,802)	(7,672)	(2,807)
Accounts payable and accrued liabilities	14,506	(2,744)	2,591
Income taxes payable	4,564	(269)	3,182
Other		382	
Net cash provided by operating activities		69,948	
Investing Activities Purchases of property, plant and equipment	(77,331)	(97,308)	(115,051)

Proceeds from disposal of property, plant and equipment		1,073	1,003
Net cash used in investing activities	(73,415)	(96,235)	(114,048)
Financing Activities Proceeds from issuance of short-term and			
long-term debt	20,089	111 , 659	14,890
Repayment of short-term and long-term debt	(34,679)	(77,237)	(2,100)
Purchase of common shares for treasury	(6,688)	(5,885)	
Cash dividends paid	(2, 258)	(2, 262)	(2, 264)
Proceeds from issuance of stock under stock option plan	2,436	2,466	711
Equity and debt proceeds from minority interests			816
Net cash (used in) provided by financing activities	(17,886)	31,241	12,053
Effect of exchange rate changes on cash and cash equivalents	(3,234)	(826)	(1,190)
Net increase (decrease) in cash and cash equivalents Cash and cash equivalents at beginning of year	15,446	4,128 11,318	56,240
Cash and cash equivalents at end of year		\$15,446	\$11,318

F-4 [CAPTION]

MINERALS TECHNOLOGIES INC. AND SUBSIDIARY COMPANIES CONSOLIDATED STATEMENT OF SHAREHOLDERS' EQUITY (In thousands)

		n Stock			
Balance as of January 1, 1995 Net income Dividends declared Employee benefit transactions Currency translation adjustment	25,110 43	\$2,511 4			\$ 20,222 (3,291)
Unrealized holding losses, net					(3,291)
Balance as of December 31, 1995 Net income Dividends declared	25,153	2,515		323,375 43,097 (2,262)	•
Employee benefit transactions Currency translation adjustment	107	11	2,455		(5,371)
Purchase of common stock Unrealized holding gains, net					
<u>j</u> ,					

Balance as of

December 31, 1996 Net income	25,260	2,526	135,676	364,210 50,312	11,560
Dividends declared				(2,258)	
Employee benefit transactions Income tax benefit	110	11	2,837		
arising from employee stock option plans			600		
Currency translation			000		(25 016)
adjustment Minimum pension					(25,016)
liability adjustment Purchase of common					
stock					
Unrealized holding losses, net					
Balance as of December 31, 1997	25,370 =====	\$2 , 537	\$139,113 ======	\$412,264 ======	\$(13,456) ======

MINERALS TECHNOLOGIES INC. AND SUBSIDIARY COMPANIES CONSOLIDATED STATEMENT OF SHAREHOLDERS' EQUITY (In thousands)(Continued)

	Minimum Pension Liability Adjustment	Holding	Treasur Shares	y Stock Cost	Total
Balance as of January 1, 1995 Net income Dividends declared	\$ 	\$121 	(2,500)		\$381,098 39,529 (2,264)
Employee benefit transactions Currency translation					1,091
adjustment Unrealized holding					(0,202)
losses, net		(10)			(10)
Balance as of December 31, 1995 Net income Dividends declared Employee benefit transactions Currency translation adjustment Purchase of common stock Unrealized holding gains, net	 	111 52	(2,500) (160) 	(60,000) (5,885) 	43,097 (2,262) 2,466 (5,371)
Balance as of December 31, 1996 Net income Dividends declared Employee benefit transactions Income tax benefit arising from	 	163 	(2,660) 	(65,885) 	448,250 50,312 (2,258) 2,848

employee stock					
option plans					600
Currency translation					
adjustment					(25,016)
Minimum pension					
liability adjustment	(1,001)				(1,001)
Purchase of common					
stock			(170)	(6,688)	(6,688)
Unrealized holding					
losses, net		(50)			(50)
Balance as of					
December 31, 1997	\$(1,001)	\$113	(2,830)	\$(72 , 573)	\$466 , 997
		====	======		

F-5

MINERALS TECHNOLOGIES INC. AND SUBSIDIARY COMPANIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Summary of Significant Accounting Policies

Basis of Presentation

The accompanying consolidated financial statements include the accounts of Minerals Technologies Inc. (the "Company") and its wholly and majority owned subsidiaries. All intercompany balances and transactions have been eliminated in consolidation.

Use of Estimates

The Company employs accounting policies that are in accordance with generally accepted accounting principles in the United States and require management to make estimates and assumptions relating to the reporting of assets and liabilities and the disclosure of contingent liabilities at the date of the financial statements. Actual results could differ from those estimates.

Business

The Company is a resource - and technology-based company that develops, produces and markets on a worldwide basis a broad range of specialty mineral, mineral-based and synthetic mineral products. The Company's products are used in manufacturing processes of the paper and steel industries, as well as by the building materials, polymers, ceramics, paints and coatings, glass and other manufacturing industries.

Cash Equivalents

The Company considers all highly liquid investments with maturities of three months or less at the date of purchase to be cash equivalents. Cash equivalents amounted to \$8.6 million and \$6.0 million at December 31, 1997 and 1996, respectively.

Inventories

Inventories are valued at the lower of cost or market. Cost is determined by the first-in, first-out (FIFO) method.

Property, Plant and Equipment

Property, plant and equipment are recorded at cost. Significant improvements are capitalized. In general, the straight line method of depreciation is used for financial reporting purposes and accelerated methods are used for U.S. and certain foreign tax reporting purposes. The annual rates of depreciation are 4%-5% for buildings, 8%-12% for machinery and equipment and 8%-12% for furniture and fixtures.

Depletion of the mineral and quarry properties is provided on a unit-of-extraction basis as the related materials are mined for financial reporting purposes and on a percentage depletion basis for tax purposes. Mining costs associated with waste gravel and rock removal in excess of the expected average life of mine stripping ratio are deferred. These costs are charged to production on a unit-of-production basis when the ratio of waste to ore mined is less than the average life of mine stripping ratio.

Foreign Currency

The assets and liabilities of most of the Company's international subsidiaries are translated into U.S. dollars using current exchange rates at the respective balance sheet date. The resulting translation adjustments are recorded in the currency translation adjustment account in shareholders' equity. Income statement items are generally translated at average exchange rates prevailing during the period. Other foreign currency gains and losses are included in net income.

International subsidiaries operating in highly inflationary economies translate nonmonetary assets at historical rates, while net monetary assets are translated at current rates, with the resulting translation adjustments included in net income.

Income Taxes

Income taxes are provided for based on the asset and liability method of accounting pursuant to Statement of Financial Accounting Standards No. 109, "Accounting for Income Taxes" ("SFAS 109"). Under SFAS 109, deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities are measured using enacted tax rates in effect for the year in which those temporary differences are expected to be recovered or settled. Under SFAS 109, the effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date.

F-6

MINERALS TECHNOLOGIES INC. AND SUBSIDIARY COMPANIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The accompanying financial statements generally do not include a provision for U.S. income taxes on international subsidiaries' unremitted earnings which, for the most part, are expected to be reinvested overseas.

Stock-Based Compensation

The Company has adopted Statement of Financial Accounting Standards No. 123, "Accounting for Stock Based Compensation" ("SFAS 123"), which requires expanded disclosures of stock-based compensation arrangements with employees. SFAS No. 123 establishes an alternative method of accounting for stock-based compensation awarded to employees which provides for the recognition of compensation cost to be measured based on the fair value of the equity instrument awarded. The Company, however, has elected to continue to recognize compensation cost based on the intrinsic value of the equity instrument awarded as promulgated in Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees." The Company has disclosed below under "Capital Stock -- Stock and Incentive Plan" the pro forma effect of the fair value method on net income and earnings per share.

Postretirement Benefits

The Company accrues the cost of postretirement benefits during the employee's active working career as required by Statement of Financial Accounting Standards No. 106, "Employers' Accounting for Postretirement Benefits other than Pensions" ("SFAS 106").

Earnings Per Share

The Company has adopted Statement of Financial Accounting Standards (SFAS) No. 128, "Earnings per Share," which established standards for

computing and presenting earnings per share (EPS). The statement simplifies the standards for computing EPS, replaces the presentation of primary EPS with a presentation of basic EPS and requires a dual presentation of basic and diluted EPS on the face of the income statement.

Basic EPS are based upon the weighted average number of common shares outstanding during the period.

Diluted EPS are based upon the weighted average number of common shares outstanding during the period assuming the issuance of common shares for all dilutive potential common shares outstanding.

Income Taxes

Income before provision for taxes, by domestic and foreign source is as follows:

Thousands of Dollars	1997	1996	1995
Domestic	\$48,746	\$47,410	\$42,799
Foreign	23,442	15,214	\$15 , 205
Total income before provision			
for income taxes	\$72 , 188	\$62,624	\$58,004

The provision for taxes on income consists of the following:

Thousands of Dollars	1997	1996	1995
Domestic			
Taxes currently payable			
Federal	\$7 , 862	\$7,845	\$6,455
State and local	2,938	3,593	2,044
Deferred income taxes	4,634	3,291	5,746
Domestic tax provision	15,434	14,729	14,245
Foreign			
Taxes currently payable	8,615	4,689	4,426
Deferred income taxes	(945)	70	179
Foreign tax provision	7,670	4,759	4,605
Total tax provision	\$23,104	\$19,488	\$18,850

The provision for taxes on income shown in the previous table is classified based on the location of the taxing authority, regardless of the location in which the taxable income is generated.

F-7

MINERALS TECHNOLOGIES INC. AND SUBSIDIARY COMPANIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The major elements contributing to the difference between the U.S. federal statutory tax rate and the consolidated effective tax rate are as follows:

Percentages	1997	1996	1995
U.S. statutory tax rate	35.0%	35.0%	35.0%
Depletion	(3.7)	(5.5)	(4.7)
Difference between tax provided on			
foreign earnings and the U.S.			
statutory rate	(0.8)	(0.9)	(1.2)
State and local taxes	2.9	3.9	3.5
Tax credits	(0.8)	(2.4)	(0.3)
Other	(0.6)	1.0	0.2

Consolidated	effective	tax	rate	32.0%	31.1%	32.5%
				====	====	====

The Company believes that its accrued liabilities are sufficient to cover its U.S. and foreign tax contingencies. The tax effects of temporary differences that give rise to significant portions of the deferred tax assets and deferred tax liabilities are presented below:

Thousands of Dollars	1997	1996
Deferred tax assets:		
Pension and postretirement benefits cost reported		
for financial statement purposes in excess of		
amounts deductible for tax purposes	\$7 , 196	\$8,775
State and local taxes	2,789	2,650
Accrued expenses	3,121	2,684
Alternative minimum tax	3,686	8,324
Other	2,060	1,818
Total deferred tax assets	18,852	24,251
Deferred tax liabilities:		
Plant and equipment, principally due to		
differences in depreciation	61,093	61,353
Other	2,423	2,136
Total deferred tax liabilities	63,516	63,489
Net deferred tax liability	\$44,664	\$39,238

A valuation allowance for deferred tax assets has not been recorded since management believes it is more likely than not that the existing net deductible temporary differences will reverse during periods in which the Company generates net taxable income.

Net cash paid for income taxes was \$14.2 million, \$15.4 million and \$11.0 million for the years ended December 31, 1997, 1996 and 1995, respectively.

Foreign Operations

The Company has not provided for U.S. federal and foreign withholding taxes on \$57.0 million of foreign subsidiaries' undistributed earnings as of December 31, 1997 because such earnings, for the most part, are intended to be reinvested overseas. To the extent the parent company has received foreign earnings as dividends, the foreign taxes paid on those earnings have generated tax credits which have substantially offset related U.S. income taxes. On repatriation, certain foreign countries impose withholding taxes. The amount of withholding tax that would be payable on remittance of the entire amount of undistributed earnings would approximate \$1.7 million.

Net foreign currency exchange gains (losses), included in other income (deductions) in the Consolidated Statement of Income, were \$(1,721,000), \$296,000 and \$1,620,000 for the years ended December 31, 1997, 1996 and 1995, respectively.

F-8

MINERALS TECHNOLOGIES INC. AND SUBSIDIARY COMPANIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Changes in the currency translation adjustment included in the shareholders' equity section of the Consolidated Balance Sheet are as follows:

Thousands of Dollars	1997	1996
Currency translation adjustment, January 1 Translation adjustments and hedges	\$ 11,560 (25,016)	\$16,931 (5,371)
Currency translation adjustment, December 31		
Inventories The following is a summary of inventories by r	najor catego:	су:
Thousands of Dollars	1997	1996
Raw materials Work in process Finished goods Packaging and supplies	•	\$23,585 8,513 20,670 17,670
Total inventories	\$61,166	
Property, Plant and Equipment		

The major categories of property, plant and equipment and accumulated depreciation and depletion are presented below:

Thousands of Dollars	1997	1996
Land	\$22 , 697	\$22 , 503
Quarries/mining properties	24,148	23,143
Buildings	107,865	107,578
Machinery and equipment	598,190	569,066
Construction in progress	47,594	43,429
Furniture and fixtures and other	49,775	47,163
	850,269	812,882
Less: Accumulated depreciation and depletion	349,538	311,815
	\$500 , 731	\$501 , 067

Financial Instruments and Concentrations of Credit Risk

The following methods and assumptions were used to estimate the fair value of each class of financial instrument:

Cash and cash equivalents, accounts receivable and payable, and accrued liabilities: The carrying amounts approximate fair value because of the short maturity of these instruments.

Available-for-sale securities: The available-for-sale securities are presented in accordance with SFAS No. 115, "Accounting for Certain Investments in Debt and Equity Securities." The fair values are based on quoted market prices and are as follows:

		1997		1996
Thousands of Dollars	Market Value	Gross Unrealized Holding Gains		Gross Unrealized Holding Gains
Common Stock	\$424	\$230	\$558	\$340

		1995
The second se		
Thousands		Gross Unrealized
of Dollars	Value	Holding Gains
Common Stock	\$427	\$231

The unrealized holding gains, net of taxes, were \$113,000, \$163,000 and \$111,000, respectively, at December 31, 1997, 1996 and 1995 and are included as a separate component of shareholders' equity.

F-9

MINERALS TECHNOLOGIES INC. AND SUBSIDIARY COMPANIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Short-term debt and other liabilities: The carrying amounts of short-term debt and other liabilities approximate fair value because of the short maturity of these instruments.

Long-term debt: The fair value of the long-term debt of the Company is estimated based on the quoted market prices for that debt or similar debt which approximates the carrying amount. Forward exchange contracts: The fair value of forward exchange contracts (used for hedging purposes) is estimated by obtaining quotes from brokers.

The Company enters into forward exchange contracts to hedge foreign currency transactions on a continuing basis for periods consistent with its committed exposures. It does not engage in speculation. The effect of this practice is to delay on a rolling basis the impact of foreign exchange rate movements on the Company's operating results. The Company's foreign exchange contracts do not subject the Company to risk from exchange rate movements because gains and losses on these contracts offset losses and gains on the assets, liabilities and transactions being hedged. There were no open forward exchange contracts outstanding at December 31, 1997. At December 31, 1996, the Company had open forward exchange contracts to sell \$1.1 million of foreign currencies. The difference between these contract values and the fair value of these instruments was not significant at December 31, 1996.

Credit risk:

Substantially all of the Company's accounts receivable are due from companies in the paper, construction and steel industries. Credit risk results from the possibility that a loss may occur from the failure of another party to perform according to the terms of the contract. The Company regularly monitors the credit risk exposures and takes steps to mitigate the likelihood of these exposures resulting in actual loss.

The Company's extension of credit is based on an evaluation of the customer's financial condition and collateral is not required. Credit losses are provided for in the financial statements and consistently have been within management's expectations.

Long-Term Debt and Commitments

The following is a summary of long-term debt:

Thousands of Dollars		1996
7.70% Industrial Development Revenue Bond Series		
1990 Due 2009	\$	\$ 7 , 300
7.75% Economic Development Revenue Bonds Series		
1990 Due 2010 (secured)	4,600	4,600
Variable/Fixed Rate Industrial Development Revenue		
Bonds Due 2009	4,000	4,000
Variable/Fixed Rate Industrial Development Revenue		
Bonds Due April 1, 2012	7,545	
Variable/Fixed Rate Industrial Development Revenue		
Bonds Due August 1, 2012	8,000	
6.04% Guarantied Senior Notes Due June 11, 2000	39,000	52,000
7.49% Guaranteed Senior Notes Due July 24, 2006	50,000	50,000

Other borrowings	1,914	
	115,059	117 , 900
Less: Current maturities	13,488	13,000
Long-term debt	\$101 , 571	\$104,900
	=======	

The 7.70% Industrial Development Revenue Bond Due 2009 was a tax exempt, 19-year instrument issued to finance a PCC plant in Mobile, Alabama. The bond was dated August 1, 1990 with a mandatory put by the purchaser on August 1, 2002 and an optional put by the purchaser following a downgrade in the rating of the bond below "A". The bond was subject to redemption in whole or in part by the Development Board on or after August 1, 1997 at varying prices. On July 31, 1997, the company retired this bond.

The 7.75% Economic Development Revenue Bonds Due 2010 are tax-exempt, 20-year instruments issued to finance a PCC plant in Eastover, South Carolina. The bonds are dated September 1, 1990 with a mandatory put on September 1, 2000 and an optional put by the purchaser following a downgrade in the rating of the bonds below ``A''. Pfizer is a guarantor on these bonds.

F-10

MINERALS TECHNOLOGIES INC. AND SUBSIDIARY COMPANIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The Variable/Fixed Rate Industrial Development Revenue Bonds Due 2009 are tax-exempt 15-year instruments issued to finance the expansion of a PCC plant in Selma, Alabama. The bonds are dated November 1, 1994, and provide for an optional put by the holder (during the Variable Rate Period) and a mandatory call by the issuer. The bonds bear interest at either a variable rate or fixed rate, at the option of the Company. Interest is payable semi-annually under the fixed rate option and monthly under the variable rate option. The Company has selected the variable rate option on these borrowings and the average interest rate was approximately 4%.

The Variable Fixed Rate Industrial Development Revenue Bonds due April 1, 2012 are tax-exempt 15-year instruments and were issued on April 1, 1997 to finance the construction of a PCC plant in Jackson, Alabama. The bonds bear interest at either a variable rate or fixed rate, at the option of the Company. Interest is payable semi-annually under the fixed rate option and monthly under the variable rate option. The Company has selected the variable rate option on these borrowings and the average interest rate was approximately 4%.

On August 4, 1997, the Company redeemed \$1,455,000 of the Variable/Fixed Rate Industrial Development Revenue Bonds due April 1, 2012. This represented the unused portion of the original bond issuance proceeds received on April 1, 1997 to finance the construction of a PCC plant in Jackson, Alabama.

The Variable/Fixed Rate Industrial Development Revenue Bonds due August 1, 2012 are tax-exempt 15-year instruments that were issued on August 1, 1997 to finance the construction of a PCC plant in North America. The bonds bear interest at either a variable rate or fixed rate, at the option of the Company. Interest is payable semi-annually under the fixed rate option and monthly under the variable rate option. The Company has selected the variable rate option on these borrowings and the average interest rate was approximately 4%.

On June 28, 1993, through a private placement, the Company issued \$65 million of 6.04% Guarantied Senior Notes (the "Notes") due June 11, 2000. The proceeds from the sale of the Notes were used to finance the purchase of 2.5 million shares of treasury stock, and for other corporate purposes.

Interest on the Notes is payable semi-annually. Required principal payments, in equal installments of \$13 million per annum, commenced in 1996.

On July 24, 1996, through a private placement, the Company issued \$50 million of 7.49% Guaranteed Senior Notes due July 24, 2006. The proceeds from the sale of the notes were used to refinance a portion of the short-term commercial bank debt outstanding. These notes rank pari passu with the Company's other unsecured senior obligations. No required principal payments are due until July 24, 2006. Interest on the notes is payable semi-annually.

The Company has available approximately \$110 million in uncommitted, short-term bank credit lines. There were no borrowings on these credit lines on December 31, 1997. On December 31, 1996, borrowings on these credit lines amounted to \$12.0 million with an interest rate of 6.93%. The Company had approximately \$108.0 million in unused lines of credit at December 31, 1996.

During 1997, 1996 and 1995, respectively, the Company incurred interest costs of \$8,198,000, \$8,417,000 and \$5,308,000 including \$990,000, \$2,518,000 and \$1,841,000, respectively, which were capitalized. Interest paid approximated the incurred interest costs.

Benefit Plans

Pension Plans The Company and its subsidiaries have pension plans covering substantially all eligible employees on a contributory or non-contributory basis.

The components of net periodic pension cost are as follows:

Millions of Dollars	1997	1996	1995
Service cost benefits earned during the period	\$4.1	\$4.6	\$3.8
Interest cost on projected benefit obligations	5.2	5.0	4.3
Actual return on plan assets	(13.0)	(7.7)	(9.9)
Net amortization and deferral	7.7	3.5	6.8
Net periodic pension cost	\$4.0	\$5.4	\$5.0
	====	====	====

The long-term rate of return on plan assets used in the determination of net periodic pension cost was 9.25% for 1997, 9% for 1996 and 10% for 1995.

F-11

MINERALS TECHNOLOGIES INC. AND SUBSIDIARY COMPANIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Actuarial assumptions used in the measurement of the projected benefit obligations for U.S. plans were:

	1997	1996	1995
Discount rate	7.25%	7.75%	7.25%
Rate of increase in salary levels	4.25%	4.75%	4.50%

The funded status of the Company's pension plans at December 31, 1997 and 1996 is as follows:

	1997	1997	1996	1996
	Over-	Under-	Over-	Under-
	Funded	Funded	Funded	Funded
Millions of Dollars	Plans	Plans	Plans	Plans
Actuarial present value of				
accumulated benefit obligations:				
Vested	\$(49.1)	\$(10.0)	\$(43.6)	\$(8.7)
Non-vested	(9.1)	(1.8)	(8.2)	(1.7)
Total		(11.8)		
Effect of future salary increases	· /	(2.1)	. ,	. ,
Projected benefit obligations	(65.1)	(13.9)		
Plan assets at fair value	78.0	5.2	65.4	4.4
Plan assets in excess of/(less than)				
projected benefit obligations	12.9	(87)	7.5	(8.6)
Unrecognized underfunding at date	12.9	(0.7)	1.5	(0.0)
of adoption	3.1	0 1	3.8	0.4
Unrecognized net (gains)/losses		1.9		
	(8.4)		2.1	
Unrecognized prior service costs				
Additional minimum liability		(1.9)		(0.8)
Net pension asset/(liability)				
included in Consolidated	с о г		<u> </u>	¢ (C _ O `
Balance Sheet	\$ 9.5	\$(7.3)		
	=====	=====	=====	=====

Benefits under defined benefit plans are generally based on years of service and the employee's career earnings. Employees become fully vested after five years.

The Company's funding policy for U.S. plans generally is to contribute annually into trust funds at a rate that is intended to remain at a level percentage of compensation for covered employees. The funding policy for the international plans conforms to local governmental and tax requirements. The plans' assets are invested primarily in stocks and bonds.

Savings and Investment Plans

The Company maintains a voluntary Savings and Investment Plan for most non-union employees in the U.S. Within prescribed limits, the Company bases its contribution to the Plan on employee contributions. The Company contributions amounted to \$3.1 million, \$3.0 million and \$3.0 million for the years ended December 31, 1997, 1996 and 1995, respectively.

Postretirement Benefits

The Company provides postretirement health care and life insurance benefits for substantially all of its U.S. retired employees. Employees are generally eligible for benefits upon retirement and completion of a specified number of years of creditable service. The Company does not pre-fund these benefits and has the right to modify or terminate the plan in the future.

The components of the net periodic postretirement benefit cost are as follows:

Millions of Dollars	1997	1996	1995
Service cost-benefits earned during the year	\$ 0.8	\$ 0.8	\$ 0.7
Interest cost on accumulated postretirement			
benefit obligations	0.9	0.8	0.7
Amortization of prior service cost	(1.7)	(1.7)	(1.7)
Net periodic postretirement benefits cost	\$	\$(0.1)	\$(0.3)
	=====	=====	

MINERALS TECHNOLOGIES INC. AND SUBSIDIARY COMPANIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The actuarial and recorded liabilities for postretirement benefits are as follows:

Millions of Dollars	1997	1996
Accumulated postretirement benefit obligation: Retirees	\$ (2 31)	\$ (1.22)
Fully eligible active plan participants Other active plan participants	,	(4.44)
m - L - 1		
Total Unrecognized prior service cost	(13.94) (7.18)	(12.17) (8.89)
Unrecognized net loss	1.37	1.01
Accrued postretirement benefit liability	\$(19.75)	\$(20.05)

The weighted average discount rate used in determining the accumulated postretirement benefit obligation was 7.25% and 7.75% at December 31, 1997 and 1996, respectively. Compensation levels are assumed to increase at a rate of 4.25% and 4.75%, respectively, at December 31, 1997 and 1996.

For measurement purposes, a health care cost trend rate of approximately 10.5% for pre-age-65 benefits and 8.5% for post-age-65 benefits was used. This trend rate will decrease to 5.3% in the year 2005 and thereafter.

A 1% increase in this annual trend rate would have increased the accumulated postretirement benefit obligation at December 31, 1997 by approximately \$110,000 and the aggregate of the service and interest cost components of net periodic postretirement benefit cost for the year then ended by approximately \$9,000.

Leases

Rent expense for the years ended December 31, 1997, 1996 and 1995, amounted to approximately \$4.2 million, \$4.2 million and \$4.3 million, respectively. Total future minimum rental commitments under all noncancellable leases for the years 1998 through 2002 and thereafter are approximately \$2.1 million, \$2.0 million, \$1.8 million, \$1.8 million, \$1.5 million and \$16.7 million, respectively.

The Company has entered into a long-term direct financing lease of its Pima County, Arizona limestone facility with another company. Total future minimum payments to be received under direct financing leases for the years 1998 through 2002 and thereafter are approximately \$0.1 million, \$0.2 million, \$0.2 million, \$0.2 million and \$3.3 million, respectively.

Litigation

Under the terms of certain agreements entered into in connection with the reorganization prior to the initial public offering of the Company's common stock in October 1992, Pfizer and its wholly owned subsidiary, Quigley Company, Inc. ("Quigley") agreed to indemnify the Company against certain liabilities being retained by Pfizer and its subsidiaries including, but not limited to, pending lawsuits and claims and any lawsuits or claims brought at any time in the future alleging damages or injury from the use, handling of or exposure to any product sold by Pfizer's specialty minerals business prior to the closing of the initial public offering.

Pfizer and Quigley also agreed to indemnify the Company against any liability arising from on-site remedial waste site claims and for other claims that may be made in the future with respect to wastes disposed of prior to the closing of the initial public offering. Further, Pfizer and Quigley agreed to indemnify the Company for 50% of the liabilities in excess of \$1 million up to \$10 million that may arise or accrue within ten years after the closing of the initial public offering with respect to remediation of on-site conditions existing at the time of the closing of the initial public offering. The Company will be responsible for the first \$1 million of such liabilities, 50% of such liabilities in excess of \$1 million up to \$10 million, and all such liabilities in excess of \$10 million. Further, Pfizer and Quigley agreed to indemnify the Company for non-remedial environmental claims resulting from activities or conditions occurring or existing prior to the closing of the initial public offering that are in excess of \$10,000 and that were received within two years after the closing of the initial public offering, exclusive of compliance costs and consequential damages.

F-13

MINERALS TECHNOLOGIES INC. AND SUBSIDIARY COMPANIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The transfer by Quigley of certain real property in New Jersey to the Company pursuant to the reorganization, including the former Quigley facility in Old Bridge, triggered certain obligations under the New Jersey Environmental Cleanup Responsibility Act ("ECRA"). Quigley retained liability for compliance with ECRA including the assessment and, if necessary, remediation of the Old Bridge property. Quigley's obligations under ECRA are embodied in an Administrative Consent Order with the New Jersey Department of Environmental Protection and Energy ("NJDEPE") that requires Quigley to perform any necessary remediation and to provide financial assurance of its ability to cover the costs of remediation as estimated by NJDEPE with no obligation to the Company.

The Company and its subsidiary, Specialty Minerals Inc., are defendants in a lawsuit, captioned Eaton Corporation v. Pfizer Inc, Minerals Technologies Inc. and Specialty Minerals Inc. which was filed on July 31, 1996 and is pending in the U.S. District Court for the Western District of Michigan. The suit alleges that certain materials sold to Eaton for use in truck transmissions were defective, necessitating repairs for which Eaton seeks reimbursement. While all litigation contains an element of uncertainty, the Company and Specialty Minerals Inc. believe that they have valid defenses to the claims asserted by Eaton in this lawsuit, are continuing to vigorously defend all such claims, and believe that the outcome of this matter will not have a material adverse effect on the Company's consolidated financial position or results of operations.

Capital Stock

The Company's authorized capital stock consists of 100 million shares of common stock, par value \$.10 per share, of which 22,540,385 shares and 22,599,859 shares were outstanding at December 31, 1997 and 1996, respectively, and 1 million shares of preferred stock, none of which were issued and outstanding.

Cash Dividends

Cash dividends of \$2.3 million or \$.10 per common share were paid during 1997. In January 1998, a cash dividend of approximately \$565,000 or \$.025 per share, was declared, payable in the first quarter of 1998.

Preferred Stock Purchase Rights

Under the Company's Preferred Stock Purchase Rights Plan, each share of

the Company's common stock carries with it one preferred stock purchase right. Subject to the terms and conditions set forth in the plan, the rights will become exercisable if a person or group acquires beneficial ownership of 15% or more of the Company's common stock or announces a tender or exchange offer which would result in the acquisition of 30% or more thereof. If the rights become exercisable, separate certificates evidencing the rights will be distributed, and each right will entitle the holder to purchase from the Company a new series of preferred stock, designated as Series A Junior Preferred Stock, at a predefined price. The rights also entitle the holder to purchase shares in a change-of-control situation. The preferred stock, in addition to a preferred dividend and liquidation right, will entitle the holder to vote on a pro rata basis with the Company's common stock.

The rights are redeemable by the Company at a fixed price until 10 days, or longer as determined by the Board, after certain defined events or at any time prior to the expiration of the rights on October 26, 2002 if such events do not occur.

Stock and Incentive Plan

The Company has adopted a Stock and Incentive Plan (the "Plan") which provides for grants of incentive and nonqualified stock options, stock appreciation rights, stock awards or performance unit awards. The Plan is administered by the Compensation Committee of the Board of Directors. Stock options granted under the Plan have a term not in excess of ten years. The exercise price for stock options will not be less than the fair market value of the common stock on the date of the grant, and each award of stock options will vest ratably over a specified period, generally three years.

In 1995, the Shareholders approved an amendment to the Plan to increase the number of shares of common stock available under the Plan by an additional one million.

F-14

MINERALS TECHNOLOGIES INC. AND SUBSIDIARY COMPANIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The following table summarizes stock option activity for the Plan:

		Und	ler Option
	Shares Available for Grant		Weighted Average Exercise Price Per Share (\$)
Balance January 1, 1995 Authorized Granted Exercised Canceled Balance December 31, 1995 Granted Exercised Canceled Balance December 31, 1996 Exercised Canceled Balance December 21, 1997	1,000,000 (8,000) 17,805 1,890,933 (804,111) 15,069 1,101,891 23,473	8,000 (34,960) (17,805) 1,067,649 804,111 (108,911) (15,069) 1,747,780 (96,290) (23,473)	29.75 22.625 22.625 22.83 30.625 22.90 30.06 26.36 24.38 30.35
Balance December 31, 1997			

In 1996, the Company adopted the disclosure provisions of SFAS No. 123, "Accounting for Stock Based Compensation." There were no stock options granted in 1997. The weighted-average fair value per option at the date of grant for options granted during 1996 was \$9.64. The fair value was estimated using the Black-Scholes option pricing model, modified for dividends, and the following weighted-average assumptions:

Expected life (years)	5
Interest rate	6.20%
Volatility	21.53%
Expected dividend yield	0.33%

Pro forma net income and earnings per share reflecting compensation cost for the fair value of stock options awarded in 1996 were as follows:

(Millions of dollars, except p	per share amounts)	1997	1996
Net income	As reported	\$50.3	\$43.1
	Pro forma	\$48.8	\$41.6
Basic earnings per share	As reported	\$2.23	\$1.91
	Pro forma	\$2.16	\$1.84
Diluted earnings per share	As reported	\$2.18	\$1.86
	Pro forma	\$2.11	\$1.80

The amounts disclosed may not be representative of the effects on reported net income for future years. The effect on reported net income for 1995 was not material and, accordingly, was not disclosed.

The following table summarizes information concerning Plan options outstanding at December 31, 1997:

Options Outstanding			Op	tions Exercis	able
Range of Exercise Prices	Weighted Average Number Outstanding at 12/31/97	Weighted Remaining Contractual Term (Years)	Average Exercise Price	Number Exercisable at 12/31/97	Weighted Average Exercise Price
\$ 22.625-29.75 \$ 30.625	879,547 748,470	5.2 8.1	\$ 22.83 \$ 30.625	879,547 249,490	\$ 22.83 \$ 30.625

F-15

MINERALS TECHNOLOGIES INC. AND SUBSIDIARY COMPANIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Earnings Per Share (EPS)

Basic EPS	1997	1996	1995
Net income	\$50,312	\$43,097	\$39,529
Weighted average shares outstanding	22,558	22,621	22,633
Basic earnings per share	\$ 2.23 ======	\$ 1.91 ======	\$ 1.75 ======
Diluted EPS	1997	1996	1995
Net income	\$50,312	\$43,097	\$39,529
Weighted average shares outstanding Dilutive effect of stock options	22,558 555	22,621 511	22,633 406
Weighted average shares outstanding, adjusted	23,113	23,132	23,039

Diluted earnings per share	\$ 2.18	\$ 1.86	\$ 1.72
			======

Geographic Data

The Company operates in one segment, i.e., specialty minerals. This segment includes the sale of mineral-based products and services principally to the paper, iron and steel, construction, paint and automotive industries.

The Company's consolidated operations outside the United States are organized into geographic regions. All intercompany transactions have been eliminated.

Identifiable assets are those assets applicable to the respective geographic locations.

	United			anada/ atin		Elimina-	Consoli-
(\$ 000)	States	Europe	Asia 2	America	Africa	tions	dated
1997 Net sales Inter- company	\$414,385	\$ 76,023	\$44,609	\$ 59,925	\$ 7,393	\$	\$602,335
	20,847					(20,847)	
Total Income fr		\$ 76,023	\$44,609	\$59 , 925	\$ 7 , 393	\$(20,847)	\$602,335
operation Identifia		6\$8,818	\$ 6,916	\$14 , 965	\$ 1,633	\$	\$ 80,228
		\$104,201	\$57 , 594	\$62 , 292	\$ 9 , 719	\$	\$741,407
1996 Net sales Inter- company	\$383,033	\$ 69,540	\$44 , 059	\$52 , 282	\$ 7,074	\$	\$555,988
	20,307	735				\$(21,042)	
Total Income fr		\$ 70,275	\$44,059	\$52 , 282	\$ 7,074	\$(21,042)	\$555 , 988
operation Identifia		\$ 5 , 767	\$ 4,416	\$11,466	\$ 1,306	\$	\$ 67,418
assets	\$480,550	\$ 99,064	\$70 , 055	\$59 , 432	\$ 4,760	\$	\$713 , 861
1995 Net sales Inter- company	\$360 , 171	\$61 , 494	\$54 , 102	\$37 , 873	\$10,811	\$	\$524,451
sales	15 , 585					\$(15,585)	
Total Income fr		\$61 , 494	\$54 , 102	\$37 , 873	\$10,811	\$(15,585)	\$524 , 451
operation Identifia	s \$39,080	\$ 3,746	\$ 1,692	\$11 , 687	\$ 2,469	\$	\$ 58,674
assets	\$432,090	\$91,635	\$72,971	\$45,009	\$ 7,439	\$	\$649,144

F-16

Quarterly Financial Data (unaudited)

Thousands of Dollars, Except Per Share Amounts

1997 Quarters	First	Second	Third	Fourth
Net sales	\$137 , 626	\$151 , 765	\$155 , 012	\$157 , 932
Gross profit	40,525	44,365	46,424	46,409
Net income	10,568	12,361	13,713	13,670
Earnings per share:				
Basic	0.47	0.55	0.61	0.61
Diluted	0.46	0.54	0.59	0.59
Market Price Range of Common Stoc	k			
High	42 7/8	40 7/8	44 15/16	46 1/8
Low	34	32 1/8	36 1/8	39 1/2
Close	34 1/4	37 1/4	44 3/4	45 7/16
Dividends paid per common share	\$.025	\$.025	\$.025	\$.025

Thousands of Dollars, Except Per Share Amounts

1996 Quarters	First	Second	Third	Fourth
Net sales	\$128 , 109	\$140,466	\$144,121	\$143,292
Gross profit	35 , 032	41,109	41,581	41,921
Net income	8,547	10,807	11,890	11,853
Earnings per share:				
Basic	0.38	0.48	0.53	0.52
Diluted	0.37	0.47	0.51	0.51
Market Price Range of Common Stoc	k			
High	37 3/4	39 3/8	40	41 3/8
Low	30 1/4	33	34 1/8	36 3/8
Close	34 5/8	34 1/4	36 5/8	41
Dividends paid per common share	\$.025	\$.025	\$.025	\$.025

F-17

_ _____

Independent Auditors' Report

The Board of Directors and Shareholders Minerals Technologies Inc.:

We have audited the accompanying consolidated balance sheet of Minerals Technologies Inc. and subsidiary companies as of December 31, 1997 and 1996 and the related consolidated statements of income, shareholders' equity and cash flows for each of the years in the three-year period ended December 31, 1997. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

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

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Minerals Technologies Inc. and subsidiary companies as of December 31, 1997 and 1996 and the results of their operations and their cash flows for each of the years in the three-year period ended December 31, 1997 in conformity with generally accepted accounting principles.

KPMG PEAT MARWICK LLP

New York, New York January 22, 1998

F-18

Management's Responsibility for Financial Statements and System of Internal Control

The consolidated financial statements and all related financial information herein are the responsibility of the Company's management. The financial statements, which include amounts based on judgments, have been prepared in accordance with generally accepted accounting principles. Other financial information in the annual report is consistent with that in the financial statements.

The Company maintains a system of internal control over financial reporting which it believes provides reasonable assurance that transactions are executed in accordance with management's authorization and are properly recorded, that assets are safeguarded, and that accountability for assets is maintained. Even an effective internal control system, no matter how well designed, has inherent limitations and, therefore, can provide only reasonable assurance with respect to financial statement preparation. The system of internal control is characterized by a control-oriented environment within the Company which includes written policies and procedures, careful selection and training of personnel, and audits by a professional staff of internal auditors.

The Company's independent accountants have audited and reported on the Company's consolidated financial statements. Their audits were performed in accordance with generally accepted auditing standards.

The Audit Committee of the Board of Directors is composed solely of outside directors. The Audit Committee meets periodically with our independent auditors, internal auditors and management to review accounting, auditing, internal control and financial reporting matters. Recommendations made by the independent auditors and the Company's internal auditors are considered and appropriate action is taken with respect to these recommendations. Both our independent auditors and internal auditors have free access to the Audit Committee.

Jean-Paul Valles Chairman of the Board and Chief Executive Officer John R. Stack Vice President, Finance and Chief Financial Officer

Mario J. DiNapoli Controller and Chief Accounting Officer

January 22, 1998

F-19

MINERALS TECHNOLOGIES INC. & SUBSIDIARY COMPANIES SCHEDULE II-VALUATION AND QUALIFYING ACCOUNTS (thousands of dollars)

Description	Beginning	Expenses	Deductions(a)(b)	Balance at End of Period
Year ended December 1997 Valuation and qualifying accounts deducted from assets to which they apply Allowance for doubtful accounts		\$1,554 ======	\$784 ====	\$3,267 =====
Year ended December 1996 Valuation and qualifying accounts deducted from assets to which they apply Allowance for doubtful accounts		\$79	\$670	\$2,497
Year ended December 1995 Valuation and qualifying accounts deducted from assets to which they apply Allowance for doubtful accounts		\$448	\$146	

(a) Includes impact of translation of foreign currencies.

(b) Uncollectible accounts charged against allowance accounts.

S-1

AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF MINERALS TECHNOLOGIES INC.

Minerals Technologies Inc. a corporation organized and existing under the laws of the State of Delaware, hereby certifies as follows:

1. The name of the corporation is Minerals Technologies Inc. The name under which it was originally incorporated was Composite Metal Products, Inc. The date of filing its original Certificate of Incorporation with the Secretary of State was February 19, 1968. A certificate of amendment changing its name to Pfizer Specialty Minerals Inc. was filed with the Secretary of State on August 5, 1988. An additional amendment changing its name to Minerals Technologies Inc. was filed with the Secretary of State on August 14, 1992.

2. This Restated Certificate of Incorporation was duly adopted by vote of the stockholders in accordance with Section 245 and Section 242 of the General Corporation Law of Delaware.

3. The text of the Certificate of Incorporation as amended or supplemented heretofore is hereby restated with further amendments or changes to read as herein set forth in full:

FIRST: The name of the Corporation is and shall be Minerals Technologies Inc. (hereinafter in this Restated Certificate of Incorporation called the "Corporation").

SECOND: The registered office and place of business of the Corporation in the State of Delaware is located at 1209 Orange Street, in the City of Wilmington, County of New Castle; and the name and post office address of the registered agent of the Corporation in the State of Delaware is The Corporation Trust Company, 1209 Orange Street, in the City of Wilmington, County of New Castle, Delaware.

THIRD: The nature of the business, or objects or purposes to be transacted, promoted or carried on are as follows:

To engage in, conduct, perform or participate in every kind of commercial, agricultural, mercantile, manufacturing, mining, transportation, industrial or other enterprise, business, work, contract, undertaking, venture or operation.

To buy, sell, manufacture, refine, import, export and deal in all products, goods, wares, merchandise, substances, apparatus, and property of every kind, nature and description, and to construct, maintain, and alter any buildings, works or mines.

To enter into, make and perform contracts of every kind with any person, firm or corporation.

To take out patents, trademarks, trade names and copyrights, acquire those taken out by others, acquire or grant licenses in respect of any of the foregoing, or work, transfer, or do whatever else with them may be thought fit.

To acquire the good-will, property, rights, franchises, contracts and assets of every kind and undertake the liabilities of any person, firm, association or corporation, either wholly or in part, and pay for the same in the stock, bonds or other obligations of the Corporation or otherwise.

To purchase, hold, own, sell, assign, transfer, mortgage, pledge or otherwise dispose of shares of the capital stock of any other corporation or corporations, association or associations, of any state, territory or country, and while owner of such stock, to exercise all the rights, powers and privileges of ownership including the right to vote thereon.

To issue bonds, debentures or obligations of the Corporation, at the option of the Corporation, secure the same by mortgage, pledge, deed of trust or otherwise, and dispose of and market the same.

To purchase, hold and re-issue the shares of its capital stock and its bonds and other obligations.

To do all and everything necessary, suitable, convenient or proper for the accomplishment of any of the purposes or the attainment of one or more of the objects herein enumerated, or of the powers herein named, or which shall at any time appear conducive to or expedient for the protection, or benefit of the Corporation, either as holder of, or interested in, any property or otherwise, to the same extent as natural persons might or could do, in any part of the world.

To conduct any of its business in the State of Delaware and elsewhere, including in the term "elsewhere" any of the states, districts, territories, colonies or dependencies of the United States, and in any and all foreign countries and to have one or more offices, and to hold, purchase, mortgage and convey real and personal property, without limit as to amount, within or (except as and when forbidden by local laws) without the State of Delaware.

To carry on any other business to any extent and in any manner permitted by the laws of Delaware or, where the Corporation may seek to do such business elsewhere, by local laws. The foregoing clauses shall be construed both as objects and powers, but no recitation or declaration of specific or special objects or powers herein enumerated shall be deemed to be exclusive; but in each and every instance it is hereby expressly declared that all other powers, not inconsistent therewith, now or hereafter permitted or granted under the laws of Delaware, or by the laws of any other state or country into which the Corporation may go or seek to do business, are hereby expressly included as if such other or general powers were herein set forth.

FOURTH:

A. Authorized Shares and Classes of Stock.

The total number of shares and classes of stock that the Company shall have authority to issue is one hundred and one million (101,000,000) shares, which shall be divided into two classes, as follows: one million (1,000,000) shares of Preferred Stock, without par value, and (100,000,000) shares of Common Stock of the par value of \$.10 per share.

B. Designations, Powers, Preferences and Rights, in Respect of the Shares of Preferred Stock.

(1) Shares of the Preferred Stock may be issued in one or more series at such time or times and for such consideration or considerations as the Board of Directors may determine. All shares of any one series shall be of equal rank and identical in all respects.

(2) Authority is hereby expressly granted to the Board of Directors to fix from time to time, by resolution or resolutions

providing for the issue of any series of Preferred Stock, the designation of such series, and the powers, preferences and rights of the shares of such series, and the qualifications, limitations or restrictions thereof, including the following:

(a) The distinctive designation and number of shares comprising such series, which number may (except where otherwise provided by the Board of Directors in creating such series) be increased or decreased (but not below the number of shares then outstanding) from time to time by like action of the Board of Directors;

(b) The dividend rate or rates on the shares of such series and the preferences, if any, over any other series (or of any other series over such series) with respect to dividends, the terms and conditions upon which and the periods in respect of which dividends shall be payable, whether and upon what conditions such dividends shall be cumulative and, if cumulative, the date or dates from which dividends shall accumulate;

(c) Whether or not the shares of such series shall be redeemable, the limitations and restrictions with respect to such redemptions, the time or times when, the price or prices at which and the manner in which such shares shall be redeemable, including the manner of selecting shares of such series for redemption if less than all shares are to be redeemed;

(d) The rights to which the holders of shares and such series shall be entitled, and the preferences, if any, over any other series (or of any other series over such series), upon the voluntary or involuntary liquidation, dissolution, distribution of assets or winding-up of the Corporation, which rights may vary depending on whether such liquidation, dissolution, distribution or winding-up is voluntary or involuntary, and, if voluntary, may vary at different dates;

(e) Whether or not the shares of such series shall be subject to the operation of a purchase, retirement or sinking fund, and, if so, whether and upon what conditions such purchase, retirement or sinking fund shall be cumulative or noncumulative, the extent to which and the manner in which such fund shall be applied to the purchase or redemption of the shares of such series for retirement or to other corporate purposes and the terms and provisions relative to the operation thereof;

(f) Whether or not the shares of such series shall be convertible into or exchangeable for shares of stock of any other class or classes, or of any other series of the same class and, if so convertible or exchangeable, the price or prices or the rate or rates of conversion or exchange and the method, if any, of adjusting the same, and any other terms and conditions of such conversion or exchange;

(g) The voting powers, full and/or limited, if any, of the shares of such series; and whether or not and under what conditions the shares of such series (alone or together with the shares of one or more other series having similar provisions) shall be entitled to vote separately as a single class, for the election of one or more additional directors of the Corporation in case of dividend arrearages or other specified events, or upon other matters;

(h) Whether or not the issuance of any additional shares of such series, or

of any shares of any other series, shall be subject to restrictions as to issuance, or as to the powers, preferences or rights of any such other series;

(i) Whether or not the holders of shares of such series shall be entitled, as a matter of right, to subscribe for or purchase any part of any new or additional issue of stock of any class or of securities convertible into stock of any class and, if so entitled, the qualifications, conditions, limitations and restrictions of such right; and

(j) Any other preferences, privileges and powers, and relative, participating, optional or other special rights, and qualifications, limitations or restrictions of such series, as the Board of Directors may deem advisable and as shall not be inconsistent with the provisions of this Certificate of Incorporation.

(3) The shares of each series of Preferred Stock shall entitle the holders thereof to receive, when, as and if declared by the Board of Directors out of funds legally available for dividends, cash dividends at the rate, under the conditions, for the periods and on the dates fixed by the resolution or resolutions of the Board of Directors pursuant to authority granted in this Section B, for each series, and no more, before any dividends on the Common Stock, other than dividends payable in Common Stock, shall be paid or set apart for payment. No dividends shall be paid or declared or set apart for payment on any particular series of Preferred Stock in respect of any period unless dividends shall be or have been paid, or declared and set apart for payment, pro rata on all shares of Preferred Stock at the time outstanding of each other series which ranks equally as to dividends with such particular series, so that the amount of dividends declared on such particular series shall bear the same ratio to the amount declared on each such other series as the dividend rate of such particular series shall bear to the dividend rate of such other series. No dividends shall be deemed to have accrued on any share of Preferred Stock of any series with respect to any period prior to the date of original issue of such share or the dividend payment date immediately preceding or following such date of original issue, as may be provided in the resolution or resolutions creating such series. Accruals of dividends shall not bear interest.

(4) Any redemption of Preferred Stock shall be effected by notice duly given as hereinafter specified and by payment at the redemption price of the Preferred Stock to be redeemed. In case of redemption of a part only of a series of the Preferred Stock at the time outstanding, the selection of shares for redemption may be made either by lot or pro rata or in such other manner as shall be determined by the Board of Directors. Notice of every such redemption, stating the redemption date and price, the place of payment, and the expiration date of then existing rights, if any, of conversion or exchange, shall be given

by publication, not less than 30 nor more than 60 days prior to the date fixed for redemption, at least twice in a newspaper customarily published at least once a day for at least five days in each calendar week and of general circulation in New York, New York, whether or not published on Saturdays, Sundays, or holidays. Notice of such redemption may also be mailed not less than 30 nor more than 60 days prior to the date fixed for redemption to the holders of record of the shares so to be redeemed at their respective addresses as the same shall appear on the books of the Corporation, but no failure to mail such notice or any defect therein or in the mailing thereof shall affect the validity of such redemption proceedings. If

(a) such notice of redemption by publication shall have been duly given or the Corporation shall have given to a bank or trust company in New York, New York designated by the Board of Directors and having capital and surplus of at least Two Million Dollars (\$2,000,000), irrevocable authorization promptly to give such notice; and

(b) on or before the redemption date specified in such notice the funds or other property necessary for such redemption shall have been deposited by the Corporation with such bank or trust company, designated in such notice, in trust for the pro rata benefit of the holders of the shares so called for redemption; then, notwithstanding that any certificate for shares so called for redemption shall not have been surrendered for cancellation, from and after the time of such deposit all shares of the Preferred Stock so called for redemption shall no longer be deemed to be outstanding and all rights with respect to such shares shall forthwith cease and terminate, except only

(i) the right of the holders thereof to receive from such bank or trust company the funds or other property so deposited, without interest, upon surrender (and endorsement, if required by the Board of Directors) of the certificates for such shares, and

(ii) the rights of conversion or exchange, if any, not theretofore expired.

Any funds or other property so deposited and unclaimed at the end of six years from such redemption date shall be released or repaid to the Corporation, after which the holders of the shares so called for redemption shall look only to the Corporation for payment thereof.

(5) Shares of Preferred Stock which have been redeemed or converted, or which have been issued and reacquired in any manner and retired, shall have the status of authorized and unissued Preferred Stock and may be reissued by the Board of Directors as shares of the same or any other series.

(6) In the event of any voluntary or involuntary liquidation, dissolution, distribution of assets or winding-up of the Corporation, the holders of the shares of each series of Preferred Stock then outstanding shall be entitled to receive out of the net assets of the Corporation, but only in accordance with the preference, if any, provided for such series, before any distribution or payment shall be made to the holders of the Common Stock, the amount per share fixed by the resolution or resolutions of the Board of Directors to be received by the holders of shares of each such series on such voluntary or involuntary liquidation, dissolution, distribution of assets or winding-up, as the case may be. If such payment shall have been made in full, to the holders of all outstanding Preferred Stock of all series, or duly provided for, the remaining assets of the Corporation shall be available for distribution among the holders of the Common Stock. If upon any such liquidation, dissolution, distribution, of assets or winding-up, the net assets of the Corporation available for distribution among the holders of any one or more series of the Preferred Stock which (a) are entitled to a preference over the holders of the Common Stock upon such liquidation, dissolution, distribution of assets or winding-up, and (b) rank equally in connection therewith, shall be insufficient to make payment in full of the preferential amount to which the holders of such shares shall be entitled, then such assets shall be distributed among the holders of each such series of the Preferred Stock ratably according to the respective amounts to which they would be entitled in respect of the shares held by them upon such distribution if all amounts payable on or with respect to such shares

were paid in full. Neither the consolidation or merger of the Corporation, nor the sale, lease or conveyance of all or part of its assets, shall be deemed a liquidation, dissolution, distribution of assets or winding-up of the Corporation within the meaning of the forgoing provisions.

(7) Unless and except to the extent otherwise required by law or provided in the resolution or resolutions of the Board of Directors pursuant to this Section B, the shares of Preferred Stock shall have no voting power with respect to any matter whatsoever, including, but not limited to, any action to

(a) increase the authorized number of shares of the Preferred Stock or of any series thereof,

(b) create shares of stock of any class ranking prior to or on a parity with any series of the Preferred Stock with respect to any preferences or voting powers, and

(c) authorize a new series of the Preferred Stock having preferences or voting powers ranking prior to or on a parity with any series of the Preferred Stock with respect to any preferences or voting powers.

C. Limitations, Relative Rights and Powers in Respect of Shares of Common Stock.

(1) After the requirements with respect to preferential dividends, if any, on the Preferred Stock (fixed pursuant to Section B) shall have been met and after the Corporation shall have complied with all the requirements, if any, with respect to the setting aside of sums as purchase, retirement or sinking funds (fixed pursuant to Section B), then and not otherwise the holders of Common Stock shall be entitled to receive such dividends as may be declared from time to time by the Board of Directors.

(2) After distribution in full of the preferential amount, if any, (fixed pursuant to Section B) to be distributed to the holders of Preferred Stock in the event of the voluntary or involuntary liquidation, dissolution, distribution of assets or winding-up of the Corporation, the holders of the Common Stock shall be entitled to receive all the remaining assets of the Corporation of whatever kind available for the distribution to stockholders ratably in proportion to the number of shares of Common Stock held by them respectively.

D. Other Provisions.

(1) Except as may be provided in the resolution or resolutions of the Board of Directors pursuant to Section B with respect to any series of Preferred Stock, no holder of stock of any class of the Corporation shall be entitled as of right to purchase or subscribe for any part of any unissued stock of any class, or of any additional stock of any class of Capital Stock of the Corporation, or to any bonds, certificates of indebtedness, debentures, or other securities convertible into stock of the Corporation, now or hereafter authorized, but any such stock or other securities convertible into stock may be issued and disposed of pursuant to resolution by the Board of Directors to such persons, firms, corporations or associations and upon such terms and for such consideration as the Board of Directors in the exercise of its discretion may determine and as may be permitted by law. Any and all shares of stock so issued for which the consideration so fixed has been paid or delivered to the Corporation shall be fully paid and not liable to any further call.

(2) The minimum amount of capital with which the Corporation

 $\$ (3) Effective at the time of the filing with the Secretary of State of the State of

Delaware of the Restated Certificate of Incorporation of the Company setting forth this paragraph, each share of the Company's Common Stock, par value \$.10 per share, issued and outstanding immediately prior to such time shall, without any action on the part of the holder thereof, automatically be reclassified into two thousand five hundred (2,500) shares of Common Stock, par value \$.10 per share, of the Company's and each stock certificate that, immediately prior to the time of such filing, represented one share of the Company's Common Stock, par value \$.10 per share, shall, from and after such time and without the necessity of presenting the same for exchange, represent two thousand five hundred (2,500) shares of Common Stock, par value \$.10 per share, until such stock certificates are transferred or exchanged.

FIFTH: The private property of the stockholders shall not be subject to the payment of corporate debts to any extent whatever.

SIXTH: The Corporation shall have perpetual existence.

SEVENTH: The following provisions are inserted for the management of the business and for the conduct of the affairs of the Corporation, and it is expressly provided that the same are intended to be in furtherance and not in limitation or exclusion of the powers conferred by statute:

(1) The number of directors of the Corporation (exclusive of directors (the "Preferred Stock Directors") who may be elected by the holders of any one or more series of Preferred Stock which may at any time be outstanding, voting separately as a class or classes) shall not be less than three nor more than twelve, the exact number within said limits to be fixed from time to time solely by resolution of the Board of Directors, acting by not less than a majority of the directors then in office.

(2) The Board of Directors (exclusive of Preferred Stock Directors) shall be divided into three classes, Class I, Class II and Class III. The number of directors in each class shall be as nearly equal as possible. The term of office of directors in Class I shall expire at the annual meting of stockholders in 1993; the term of office of directors in Class II shall expire at the annual meeting of stockholders in 1994; and the term of office of directors in Class III shall expire at the annual meeting of stockholders in 1995. Commencing with the annual meeting of stockholders in 1993, directors of each class the term of which shall then expire shall be elected to hold office for a three-year term and until the election and qualification of their respective successors in office. Election of directors need not be by ballot unless the By-laws so provide.

 $\$ (3) Subject to the rights of the holders of any one or more series of Preferred

Stock then outstanding, newly created directorships resulting from any increase in the authorized number of directors or any vacancies in the Board of Directors resulting from death, resignation, retirement, disqualification, removal from office or other cause shall be filled solely by the Board of Directors, acting by not less than a majority of the directors then in office. Any director so chosen shall hold office until the next election of the class for which such director shall have been chosen and until his successor shall be elected and qualified. No decrease in the number of directors shall shorten the term of any incumbent director.

(4) Subject to the rights of the holders of any one or more series of Preferred Stock then outstanding, any director, or the entire Board of Directors, may be removed from office at any time, but only for cause and only by the affirmative vote of at least 80% of the voting power of all of the outstanding shares of capital stock of the Corporation as are entitled to vote generally in the election of directors ("Voting Stock"), voting together as a single class.

(5) The By-laws may prescribe the number of directors necessary to constitute a quorum and such number may be less than a majority of the total number of directors, but shall not be less than one-third of the total number of directors.

(6) Both stockholders and directors shall have power, if the By-laws of the Corporation so provide, to hold their meetings either within or without the State of Delaware, to have one or more offices in addition to the principal office in the State of Delaware, and to keep the books of the Corporation (subject to the provisions of the statutes) outside of the State of Delaware at such places as may from time to time be designated by them.

(7) The Board of Directors shall have power to determine from time to time whether and if allowed under what conditions and regulations the accounts, and except as otherwise provided by statute or by this Certificate of Incorporation, the books of the Corporation shall be open to the inspection of the stockholders, and the stockholders' rights in this respect are and shall be restricted or limited accordingly, and no stockholder shall have any right to inspect any account or book or document of the Corporation except as conferred by statute or by this Certificate of Incorporation, or authorized by the Board of Directors or by a resolution of the stockholders.

(8) The Board of Directors shall have the power to adopt, amend or repeal the By-laws of the Corporation.

(9) The Board of Directors acting by a majority of the whole board shall have $% \left[\left({{{\mathbf{x}}_{i}}} \right) \right]$

power to appoint three or more of their number to constitute an Executive Committee, which Committee shall, when the Board of Directors is not in session and subject to the By-laws, have and exercise any or all of the powers of the Board of Directors in the management of the business and affairs of the Corporation and shall have power to authorize the seal of the Corporation to be affixed to all papers which may require it. The Board of Directors acting by a majority of the whole board shall also have power to appoint any other committee or committees, such committees to have and exercise such powers as shall be conferred by the Board of Directors or be authorized by the By-laws.

(10) Except as may be otherwise provided by statute or in this Certificate of Incorporation, the business and affairs of this Corporation shall be managed under the direction of the Board of Directors.

(11) Directors, for their services as such, may be paid such compensation as may be fixed from time to time by the Board of

Directors.

(12) The Board of Directors shall have power from time to time to fix and determine and vary the amount of the working capital of the Corporation and, subject to any restrictions contained in the Certificate of Incorporation, to direct and determine the use and disposition of any surplus over and above the capital stock paid in, and in its discretion to use and apply any such surplus in purchasing or acquiring property, bonds or other obligations of the Corporation or shares of its own capital stock, to such extent and in such manner and upon such terms as the Board of Directors shall deem expedient, but any shares of such capital stock so purchased or acquired may be resold unless such shares shall have been retired in the manner provided by law for the purpose of decreasing the Corporation's capital stock.

(13) The liability of the Corporation's Directors to the Corporation or its stockholders shall be eliminated to the fullest extent permitted by the Delaware General Corporation Law as amended from time to time. No amendment to or repeal of this paragraph (13) of Article SEVENTH shall apply to or have any effect on the liability or alleged liability of any director of the Corporation for or with respect to any acts or omissions of such director occurring prior to such amendment or repeal.

(14) Notwithstanding any other provision of law which might otherwise permit a lesser vote or no vote, but in addition to any affirmative vote of the holders of any particular class of Voting Stock required by law or this Certificate of Incorporation, the affirmative vote of the holders of at least 80% of all of the then outstanding shares of Voting Stock, voting together as a single class, shall be required to alter, amend or repeal paragraphs (1), (2), (3), (4), (5), (8), (10), (13) or this paragraph (14) of this Article SEVENTH.

(15) Any action required or permitted to be taken by the stockholders of the Corporation must be effected solely at a duly called annual or special meeting of such holders and may not be effected by any consent in writing by such holders.

IN WITNESS WHEREOF, said Minerals Technologies Inc. has caused this certificate to be signed by Jean-Paul Valles, the Chairman of its Board of Directors, and attested by S. Garrett Gray, its Secretary, this 29th day of September, 1992.

MINERALS TECHNOLOGIES INC.

By /s/J. P. Valles

Chairman of the Board of Directors

Attest:

By: /s/S. Garrett Gray

S. Garrett Gray Secretary CERTIFICATE OF DESIGNATIONS OF SERIES A JUNIOR PREFERRED STOCK OF MINERALS TECHNOLOGIES INC.

Pursuant to Section 151 of the Delaware General Corporation Law

I, John R. Stack, Vice President - Finance of Minerals Technologies Inc., a corporation organized and existing under the Delaware General Corporation Law (the "Company"), in accordance with the provisions of Section 151 of such law, DO HEREBY CERTIFY that pursuant to the authority conferred upon the Board of Directors by the Amended and Restated Certificate of Incorporation of the Company, the Board of Directors on October 26, 1992 adopted the following resolution which creates a series of 280,000 shares of Preferred Stock designated as Series A Junior Preferred Stock, as follows:

RESOLVED, that pursuant to Section 151(g) of the Delaware General Corporation Law and the authority vested in the Board of Directors of the Company in accordance with the provisions of ARTICLE FOURTH, Section B of the Amended and Restated Certificate of Incorporation of the Company, a series of Preferred Stock of the Company be, and hereby is, created, and the powers, designations, preferences and relative, participating, optional or other special rights of the shares of such series, and the qualifications, limitations or restrictions thereof, be, and hereby are, as follows:

Section 1. Designation and Amount. The shares of such series shall be designated as "Series A Junior Preferred Stock" (the "Series A Preferred Stock") and the number of shares constituting such series shall be 280,000.

Section 2. Dividends and Distributions.

(A) Subject to the provisions for adjustment hereinafter set forth, the holders of shares of Series A Preferred Stock shall be entitled to receive, when, as and if declared by the Board of Directors out of funds legally available for the purpose, (I) cash dividends in an amount per share (rounded to the nearest cent) equal to 100 times the aggregate per share amount of all cash dividends declared or paid on the Common Stock, \$0.10 par value per share, of the Company (the "Common Stock") and (ii) preferential cash dividend (the "Preferential Dividends"), if ny, in preference to the holders of any class of Common Stock, on the first day of February, May, August and November of each year (each a "Quarterly Dividend Payment Date"), commencing on the first Quarterly Dividend Payment Date after the first issuance of a share or fraction of a share of Series A Preferred Stock, payable in an amount (except in the case of the first Quarterly Dividend Payment if the date of the first issuance of Series A Preferred Stock is a date other than a Quarterly Dividend Payment date, in which case such payment shall be a prorated amount of such amount) equal to \$1.00 per share of

Series A Preferred Stock less the per share amount of all cash dividends declared on the Series A Preferred Stock pursuant to clause (I) of this sentence since the immediately preceding Quarterly Dividend Payment Date or, with respect to the first Quarterly Dividend Payment Date, since the first issuance

of any share or fraction of a share of Series A Preferred Stock. In the event the Company shall, at any time after the issuance of any share or fraction of a share of Series A Preferred Stock, make any distribution on the shares of Common Stock of the Company, whether by way of a dividend or a reclassification of stock, a recapitalization, reorganization or partial liquidation of the Company or otherwise, which is payable in cash or any debt security, debt instrument, real or personal property or any other property (other than cash dividends subject to the immediately preceding sentence, a distribution of shares of Common Stock or other capital stock of the Company or a distribution of rights or warrants to acquire any such share, including any debt security convertible into or exchangeable for any such share, at a price less than the Fair Market Value (as hereinafter defined) of such share), then, and in each such event, the Company shall simultaneously pay on each then outstanding share of Series A Preferred Stock of the Company a distribution, in like kind, of 100 times such distribution paid on a share of Common Stock (subject to the provisions for adjustment hereinafter set forth). The dividends and distributions on the Series A Preferred Stock to which holders thereof are entitled pursuant to clause (I) of the first sentence of this paragraph and pursuant to the second sentence of this paragraph are hereinafter referred to as "Dividends" and the multiple of such cash and non-cash dividends on the Common Stock applicable to the determination of the Dividends, which shall be 100 initially buy shall be adjusted from time to time as hereinafter provided, is hereinafter referred to as the "Dividend Multiple". In the event the Company shall at any time after November 6, 1992 declare or pay any dividend or make any distribution on Common Stock payable in shares of Common Stock, or effect a subdivision or split or a combination, consolidation or reverse split of the outstanding shares of Common Stock into a greater or lesser number of shares of Common Stock, then in each such case the Dividend Multiple thereafter applicable to the determination of the amount of Dividends which holders of shares of Series A Preferred Stock shall be entitled to receive shall be the Dividend Multiple applicable immediately prior to such event multiplied by a fraction the numerator of which is the number of shares of Common Stock outstanding immediately after such event and the denominator of which is the number of shares of Common Stock that were outstanding immediately prior to such event.

(B) The Company shall declare each Dividend at the same time it declares any cash or non-cash dividend or distribution on the Common Stock in respect of which a Dividend is required to be paid. No cash or non-cash dividend or distribution on the Common Stock in respect of which a Dividend is required to be paid shall be paid or set aside for payment on the Common Stock unless a

2

Dividend in respect of such dividend or distribution on the Common Stock shall be simultaneously paid, or set aside for payment, on the Series A Preferred Stock.

(C) Preferential Dividends shall begin to accrue on outstanding shares of Series A Preferred Stock from the Quarterly Dividend Payment Date next preceding the date of issuance of any shares of Series A Preferred Stock. Accrued but unpaid Preferential Dividends shall cumulate but shall not bear interest. Preferential Dividends paid on the shares of Series A Preferred Stock in an amount less than the total amount of such dividends at the time accrued and payable on such shares shall be allocated pro rata on a share-by-share basis among all such shares at the time outstanding. Section 3. Voting Rights. The holders of shares of Series A Preferred Stock shall have the following voting rights:

(A) Subject to the provisions for adjustment hereinafter set forth, each share of Series A Preferred Stock shall entitle the holder thereof to 100 votes on all matters submitted to a vote of the stockholders of the Company. The number of votes which a holder of Series A Preferred Stock is entitled to cast, as the same may be adjusted from time to time as hereinafter provided, is hereinafter referred to as the "Vote Multiple". In the event the Company shall at any time after November 6, 1992 declare or pay any dividend on Common Stock payable in shares of Common Stock, or effect a subdivision or split or a combination, consolidation or reverse split of the outstanding shares of Common Stock into a greater or lesser number of shares of Common Stock, then in each such case the Vote Multiple thereafter applicable to the determination of the number of votes per share to which holders of shares of Series A Preferred Stock shall be entitled after such event shall be the Vote Multiple immediately prior to such event multiplied by a fraction the numerator of which is the number of shares of Common Stock outstanding immediately after such event and the denominator of which is the number of shares of Common Stock that were outstanding immediately prior to such event.

(B) Except as otherwise provided herein, in the Amended and Restated Certificate of Incorporation or By-laws, the holders of shares of Series A Preferred Stock and the holders of shares of Common Stock shall vote together as one class on all matters submitted to a vote of stockholders of the Company.

(C) In the event that the Preferential Dividends accrued on the Series A Preferred Stock for four or more quarterly dividend periods, whether consecutive or not, shall not have been declared and paid or irrevocably set aside for payment, the holders of record of Preferred Stock of the Company of all series (including the Series A Preferred Stock), other than any series in respect of which such right is expressly withheld by the Amended and Restated Certificate of Incorporation or the authorizing resolutions included in any Certificate of Designations therefor, shall have the right, at the next meeting of stockholders called for the election of directors, to elect two members to the Board of Directors, which directors shall be in addition to the number

3

required by the By-laws prior to such event, to serve until the next Annual Meeting and until their successors are elected and qualified or their earlier resignation, removal or incapacity or until such earlier time as all accrued and unpaid Preferential Dividends upon the outstanding shares of Series A Preferred Stock shall have been paid (or irrevocably set aside for payment) in full. The holders of shares of Series A Preferred Stock shall continue to have the right to elect directors as provided by the immediately preceding sentence until all accrued and unpaid Preferential Dividends upon the outstanding shares of Series A Preferred Stock shall have been paid (or set aside for payment) in full. Such directors may be removed and replaced by such stockholders, and vacancies in such directorships may be filled only by such stockholders (or by the remaining director elected by such stockholders, if there be one) in the manner permitted by law; provided, however, that any such action by stockholders shall be taken at a meeting of stockholders and shall not be taken by written consent thereto.

(D) Except as otherwise required by the Amended and Restated Certificate of Incorporation or By-laws or set forth herein, holders of

Series A Preferred Stock shall have no other special voting rights and their consent shall not be required (except to the extent they are entitled to vote with holders of Common Stock as set forth herein) for the taking of any corporate action.

Section 4. Certain Restrictions.

(A) Whenever Preferential Dividends or Dividends are in arrears or the Company shall be in default of payment thereof, thereafter and until all accrued and unpaid Preferential Dividends and Dividends, whether or not declared, on shares of Series A Preferred Stock outstanding shall have been paid or set irrevocably aside for payment in full, and in addition to any and all other rights which any holder of shares of Series A Preferred Stock may have in such circumstances, the Company shall not

(I) declare or pay dividends on, make any other distributions on, or redeem or purchase or otherwise acquire for consideration, any shares of stock ranking junior (either as to dividends or upon liquidation, dissolution or winding up) to the Series A Preferred Stock;

(ii) declare or pay dividends on or make any other distributions on any shares of stock ranking on a parity as to dividends with the Series A Preferred Stock, unless dividends are paid ratably on the Series A Preferred Stock and all such parity stock on which dividends are payable or in arrears in proportion to the total amounts to which the holders of all such shares are then entitled if the full dividends accrued thereon were to be paid;

(iii) except as permitted by subparagraph (iv) of this paragraph 4(A), redeem or purchase or otherwise acquire for consideration shares of any stock ranking on a parity (either as to dividends or upon liquidation, dissolution or winding up) with the Series A Preferred Stock, provided that the Company may at any time redeem, purchase or otherwise acquire shares of any such parity stock in exchange for shares of any stock of the Company ranking junior (both as to dividends and upon liquidation,

dissolution or winding up) to the Series A Preferred Stock; or

(iv) purchase or otherwise acquire for consideration any shares of Series A Preferred Stock, or any shares of stock ranking on a parity with the Series A Preferred Stock (either as to dividends or upon liquidation, dissolution or winding up), except in accordance with a purchase offer made to all holders of such shares upon such terms as the Board of Directors, after consideration of the respective annual dividend rates and other relative rights and preferences of the respective series and classes, shall determine in good faith will result in fair and equitable treatment among the respective series or classes.

(B) The Company shall not permit any Subsidiary (as hereinafter defined) of the Company to purchase or otherwise acquire for consideration any shares of stock of the Company unless the Company could, under paragraph (A) of this Section 4, purchase or otherwise acquire such shares at such time and in such manner. A "Subsidiary" of the Company shall mean any corporation or other entity of which securities or other ownership interests having ordinary voting power sufficient to elect a majority of the board of directors of such corporation or other entity or other persons performing similar functions are beneficially owned, directly or indirectly, by the Company or by any corporation or other entity that is otherwise controlled by the Company. (C) The Company shall not issue any shares of Series A Preferred Stock except upon exercise of Rights issued pursuant to that certain Rights Agreement dated as of October 26, 1992 between the Company and Chemical Bank, a copy of which is on file with the Secretary of the Company at its principal executive office and shall be made available to stockholders of record without charge upon written request therefor addressed to said Secretary. Notwithstanding the foregoing sentence, nothing contained in the provisions hereof shall prohibit or restrict the Company from issuing for any purpose any series of Preferred Stock with rights and privileges similar to, different from, or greater than, those of the Series A Preferred Stock.

Section 5. Reacquired Shares. Any shares of Series A Preferred Stock purchased or otherwise acquired by the Company in any manner whatsoever shall be retired and canceled promptly after the acquisition thereof. All such shares upon their retirement and cancellation shall become authorized but unissued shares of Preferred Stock, without designation as to series, and such shares may be reissued as part of a new series of Preferred Stock to be created by resolution or resolutions of the Board of Directors.

6. Liquidation, Dissolution or Winding Up. Upon any voluntary or involuntary liquidation, dissolution or winding up of the Company, no distribution shall be made (I) to the holders of shares of stock ranking junior (either as to dividends or upon liquidation, dissolution or winding up) to the Series A Preferred Stock unless the holders of shares of Series A Preferred Stock shall have received, subject to adjustment as hereinafter provided, (A) \$100.00 per share plus an amount equal to accrued

and unpaid dividends and distributions thereon, whether or not declared, to the date of such payment or, (B) if greater than the amount specified in clause (I) (A) of this sentence, an amount equal to 100 times the aggregate amount to be distributed per share to holders of Common Stock, as the same may be adjusted as hereinafter provided and (ii) to the holders of stock ranking on a parity upon liquidation, dissolution or winding up with the Series A Preferred Stock, unless simultaneously therewith distributions are made ratably on the Series A Preferred Stock and all other shares of such parity stock in proportion to the total amounts to which the holders of shares of Series A Preferred Stock are entitled under clause (I) (A) of this sentence and to which the holders of such parity shares are entitled, in each case upon such liquidation, dissolution or winding up. The amount to which holders of Series A Preferred Stock may be entitled upon liquidation, dissolution or winding up of the Company pursuant to clause (I) (B) of the foregoing sentence is hereinafter referred to as the "Participating Liquidation Amount" and the multiple of the amount to be distributed to holders of shares of Common Stock upon the liquidation, dissolution or winding up of the Company applicable pursuant to said clause to the determination of the Participating Liquidation Amount, as said multiple may be adjusted from time to time as hereinafter provided, is hereinafter referred to as the "Liquidation Multiple". In the event the Company shall at any time after November 6, 1992 declare or pay any dividend on Common Stock payable in shares of Common Stock, or effect a subdivision or split or a combination, consolidation or reverse split of the outstanding shares of Common Stock into a greater or lesser number of shares of Common Stock, then, in each such case, the Liquidation Multiple thereafter applicable to the determination of the Participating Liquidation Amount to which holders of

Series A Preferred Stock shall be entitled after such event shall be the Liquidation Multiple applicable immediately prior to such event multiplied by a fraction the numerator of which is the number of shares of Common Stock outstanding immediately after such event and the denominator of which is the number of shares of Common Stock that were outstanding immediately prior to such event.

Section 7. Certain Reclassifications and Other Events. (A) In the event that holders of shares of Common Stock of the Company receive after November 6, 1992 in respect of their shares of Common Stock any share of capital stock of the Company (other than any share of Common Stock of the Company), whether by way of reclassification, recapitalization, reorganization, dividend or other distribution or otherwise (a "Transaction"), then, and in each such event, the dividend rights, voting rights and rights upon the liquidation, dissolution or winding up of the Company of the shares of Series A Preferred Stock shall be adjusted so that after such event the holders of Series A Preferred Stock shall be entitled, in respect of each share of Series A Preferred Stock held, in addition to such rights in respect thereof to which such holder was entitled immediately

prior to such adjustment, to (I) such additional dividends as equal the Dividend Multiple in effect immediately prior to such Transaction multiplied by the additional dividends which the holder of a share of Common Stock shall be entitled to receive by virtue of the receipt in the Transaction of such capital stock, (ii) such additional voting rights as equal the Vote Multiple in effect immediately prior to such Transaction multiplied by the additional voting rights which the holder of a share of Common Stock shall be entitled to received by virtue of the receipt in the Transaction of such capital stock and (iii) such additional distributions upon liquidation, dissolution or winding up of the Company as equal the Liquidation Multiple in effect immediately prior to such Transaction multiplied by the additional amount which the holder of a share of Common Stock shall be entitled to receive upon liquidation, dissolution or winding up of the Company by virtue of the receipt in the Transaction of such capital stock, as the case may be, all as provided by the terms of such capital stock.

(B) In the event that holders of shares of Common Stock of the Company receive after November 6, 1992 in respect of their shares of Common Stock any right or warrant to purchase Common Stock (including as such a right, for all purposes of this paragraph, any security convertible into or exchangeable for Common Stock) at a purchase price per share less than the Fair Market Value of a share of Common Stock on the date of issuance of such right or warrant, then and in each such event the dividend rights, voting rights and rights upon the liquidation, dissolution or winding up of the Company of the shares of Series A Preferred Stock shall each be adjusted so that after such event the Dividend Multiple, the Vote Multiple and the Liquidation Multiple shall each be the product of the Dividend Multiple, the Vote Multiple and the Liquidation Multiple, as the case may be, in effect immediately prior to such event multiplied by a fraction the numerator of which shall be the number of shares of Common Stock outstanding immediately before such issuance of rights or warrants plus the maximum number of shares of Common Stock which could be acquired upon exercise in full of all such rights or warrants and the denominator of which shall be the number of shares of Common Stock outstanding immediately before such issuance of rights or warrants plus the number of shares of Common Stock which could be purchased, at the Fair Market Value of the Common Stock at the time of such issuance, by the maximum

aggregate consideration payable upon exercise in full of all such rights or warrants.

(C) In the event that holders of shares of Common Stock of the Company receive after November 6, 1992 in respect of their shares of Common Stock any right or warrant to purchase capital stock of the Company (other than shares of Common Stock), including as such a right, for all purposes of this paragraph, any security convertible into or exchangeable for capital stock of the Company (other than Common Stock), at a purchase price per share less than the Fair Market Value of such shares of capital stock on the date of issuance of such right or warrant, then and in each such event the dividend rights, voting rights and rights

upon liquidation, dissolution or winding up of the Company of the shares of Series A Preferred Stock shall each be adjusted so that after such event each holder of a share of Series A Preferred Stock shall be entitled, in respect of each share of Series A Preferred Stock held, in addition to such rights in respect thereof to which such holder was entitled immediately prior to such event, to receive (I) such additional dividends as equal the Dividend Multiple in effect immediately prior to such event multiplied, first, by the additional dividends to which the holder of a share of Common Stock shall be entitled upon exercise of such right or warrant by virtue of the capital stock which could be acquired upon such exercise and multiplied again by the Discount Fraction (as hereinafter defined) and (ii) such additional voting rights as equal the Vote Multiple in effect immediately prior to such event multiplied, first, by the additional voting rights to which the holder of a share of Common Stock shall be entitled upon exercise of such right or warrant by virtue of the capital stock which could be acquired upon such exercise and multiplied again by the Discount Fraction and (iii) such additional distributions upon liquidation, dissolution or winding up of the Company as equal the Liquidation Multiple in effect immediately prior to such event multiplied, first, by the additional amount which theholder of a share of Common Stock shall be entitled to receive upon liquidation, dissolution or winding up of the Company upon exercise of such right or warrant by virtue of the capital stock which could be acquired upon such exercise and multiplied again by the Discount Fraction. For purposes of this paragraph, the "Discount Fraction" shall be a fraction the numerator of which shall be the difference between the Fair Market Value of a share of the capital stock subject to a right or warrant distributed to holders of shares of Common Stock of the Company as contemplated by this paragraph immediately after the distribution thereof and the purchase price per share for such share of capital stock pursuant to such right or warrant and the denominator of which shall be the Fair Market Value of a share of such capital stock immediately after the distribution of such right or warrant.

(D) For purposes of this Certificate of Designations, the "Fair Market Value" of a share of capital stock of the Company (including a share of Common Stock) on any date shall be deemed to be the average of the daily closing price per share thereof over the 30 consecutive Trading Days (as such term is hereinafter defined) immediately prior to such date; provided, however, that, in the event that such Fair Market Value of any such share of capital stock is determined during a period which includes any date that is within 30 Trading Days after (i) the ex-dividend date for a dividend or distribution on stock payable in shares of such stock or securities convertible into shares of such stock, or (ii) the effective date of any subdivision, split, combination, consolidation, reverse stock split or reclassification of such stock, then, and in each such case, the Fair Market Value shall be appropriately adjusted by the Board of Directors of the Company to take into account ex-dividend or

post-effective date trading. The closing price for any day shall be the last sale price, regular way, or, in case no such sale takes place on such day, the average of the closing bid and asked prices, regular way (in either case, as reported in the applicable transaction reporting system with respect to securities listed or admitted to trading on the New York Stock Exchange), or, if the shares are not listed or admitted to trading on the New York Stock Exchange, as reported in the applicable transaction reporting system with respect to securities listed on the principal national securities exchange on which the shares are listed or admitted to trading or, if the shares are not listed or admitted to trading on any national securities exchange, the last quoted price or, if not so quoted, the average of the high bid and low asked prices in the over-the-counter market, as reported by the National Association of Securities Sealers, Inc. Automated Quotation System ("NASDAQ") or such other system then in use, or if on any such date the shares are not quoted by any such organization, the average of the closing bid and asked prices as furnished by a professional market maker making a market in the shares selected by the Board of Directors of the Company. The term "Trading Day" shall mean a day on which the principal national securities exchange on which the shares are listed or admitted to trading is open for the transaction of business or, if the shares are not listed or admitted to trading on any national securities exchange, on which the New York Stock Exchange or such other national securities exchange as may be selected by the Board of Directors of the Company is open. If the shares are not publicly held or not so listed or traded on any day within the period of 30 Trading Days applicable to the determination of Fair Market Value thereof as aforesaid, "Fair Market Value" shall mean the fair market value thereof per share as determined in good faith by the Board of Directors of the Company. In either case referred to in the foregoing sentence, the determination of Fair Market Value shall be described in a statement filed with the Secretary of the Company.

Section 8. Consolidation, Merger, etc. In case the Company shall enter into any consolidation, merger, combination or other transaction in which the shares of Common Stock are exchanged for or changed into other stock or securities, cash and/or any other property, then in any such case each outstanding share of Series A Preferred Stock shall at the same time be similarly exchanged for or changed into the aggregate amount of stock, securities, cash and/or other property (payable in like kind), as the case may be, for which or into which each share of Common Stock is changed or exchanged multiplied by the highest of the Vote Multiple, the Dividend Multiple or the Liquidation Multiple in effect immediately prior to such event.

Section 9. Effective Time of Adjustments.

(A) Adjustments to the Series A Preferred Stock required by the provisions hereof shall be effective as of the time at which the event requiring such adjustments occurs.

(B) The Company shall give prompt written notice to each

any adjustment to the voting rights, dividend rights or rights upon liquidation, dissolution or winding up of the Company of such shares required by the provisions hereof. Notwithstanding the foregoing sentence, the failure of the Company to give such notice shall not affect the validity of or the force or effect of or the requirement for such adjustment.

Section 10. No Redemption. The shares of Series A Preferred Stock shall not be redeemable at the option of the Company or any holder thereof. Notwithstanding the foregoing sentence of this Section, the Company may acquire shares of Series A Preferred Stock in any other manner permitted by law, the provisions hereof and the Restated Certificate of Incorporation of the Company.

Section 11. Ranking. Unless otherwise provided in the Amended and Restated Certificate of Incorporation of the Company or a Certificate of Designations relating to a subsequent series of preferred stock of the Company, the Series A Preferred Stock shall rank junior to all other series of the Company's preferred stock as to the payment of dividends and the distribution of assets on liquidation, dissolution or winding up and senior to the Common Stock.

Section 12. Amendment. The provisions hereof and the Amended and Restated Certificate of Incorporation of the Company shall not be amended in any manner which would adversely affect the rights, privileges or powers of the Series A Preferred Stock without, in addition to any other vote of stockholders required by law, the affirmative vote of the holders of two-thirds or more of the outstanding shares of Series A Preferred Stock, voting together as a single class.

IN WITNESS WHEREOF, I have executed and subscribed this Certificate of Designations and do affirm the foregoing as true under the penalties of perjury this 4th day of November, 1992.

/s/

Name: John R. Stack Title: Vice President - Finance

ATTEST:

/s/ Secretary

COMMON STOCK PAR VALUE \$0.10 THIS CERTIFICATE IS TRANSFERABLE IN BOSTON, MASSACHUSETTS COMMON STOCK PAR VALUE \$0.10

SHARES

CUSIP 603158 10 6 See reverse for certain definitions

MINERALS TECHNOLOGIES INC.

INCORPORATED UNDER THE LAWS OF THE STATE OF DELAWARE

This certifies that

is the owner of

FULLY-PAID AND NON-ASSESSABLE SHARES OF THE COMMON STOCK OF Minerals Technologies Inc., transferable on the books of the Corporation by the holder hereof in person or by duly authorized Attorney upon surrender of this Certificate properly endorsed. This Certificate is not valid unless countersigned and registered by the Transfer Agent and Registrar. Witness the facsimile seal of the Corporation and the facsimile signatures of its duly authorized officers.

DATED:

Countersigned and Registered: STATE STREET BANK AND TRUST COMPANY /s/ Chairman (BOSTON, MASSACHUSETTS) Transfer Agent and Registrar /s/ Secretary

Ву

Authorized Signature

This certificate also evidences and entitles the holder hereof to the same number of Rights (subject to adjustment) as the number of shares of Common Stock represented by this certificate, such Rights being on the terms provided under the Rights Agreement between Minerals Technologies Inc. and Chemical Bank (the "Rights Agent"), dated as of October 26, 1992, as it may be amended from time to time (The "Rights Agreement"), the terms of which are incorporated herein by reference and a copy of which is on file at the principal executive offices of Minerals Technologies Inc. Under certain circumstances, as set forth in the Rights Agreement, such Rights shall be evidenced by separate certificates and shall no longer be evidenced by this certificate. Minerals Technologies Inc. shall mail to the registered holder of this certificate a copy of the Rights Agreement without charge within five days after receipt of a written request therefor. Under certain circumstances as provided in Section 7(e) of the Rights Agreement, Rights issued to or Beneficially Owned by Acquiring Persons or their Affiliates or Associates (as such terms are defined in the Rights Agreement) or any subsequent holder of such Rights shall be null and void and may not be transferred to any Person.

BASE SALARY

The Company has entered into Employment Agreements, in the form filed herewith, with certain individuals, as follows: In October 1995, the Company entered into employment agreements with the following individuals for terms of three years: Howard R. Crabtree, S. Garrett Gray, Paul R. Saueracker, and John R. Stack. In January 1996, the Company entered into an employment agreement with Anton Dulski for a term expiring October 22, 1998. In October 1997, the Company entered into an employment agreement with Jean-Paul Valles for a term expiring October 17, 2001. Employment Agreements have been executed by the Company and the indicated employees, each substantially identical in all material respects to such form of Employment Agreement except as noted below. Each Employment Agreement was executed by Dr. Valles, except the agreement with Dr. Valles, which was executed by Mr. Gray.

EMPLOYEE AND POSITION

Howard R. Crabtree Vice President Organization and Human Resources	\$176 , 543
Anton Dulski Vice President and President and Chief Executive Officer of Minteq International Inc.	\$180,000
S. Garrett Gray Vice President, General Counsel and Secretary	\$182,814
<pre>Paul R. Saueracker Vice President and President and Chief Executive Officer of Specialty Minerals Inc.</pre>	\$204,225
John R. Stack Vice presidentFinance and Chief Financial Officer	\$190 , 650

Jean-Paul Valles \$738,972 - -- Chairman and Chief Executive Officer

EMPLOYMENT AGREEMENT

This Employment Agreement ("Agreement"), made as of the __ day of _____ 199__, by and between Minerals Technologies Inc., 405 Lexington Avenue, New York, New York

Technologies Inc., 405 Lexington Avenue, New York, New York 10174-1901, a Delaware Corporation (hereinafter referred to as "Employer"), and (hereinafter referred to as "Executive").

WHEREAS, in furtherance of Employer's commitment to the continued success of the specialty minerals business, and in recognition of the valuable contributions to be made by Executive because of his experience in the specialty minerals business, Employer has agreed to employ Executive for a period of three years, commencing on the _____ day of _____ 199__, ("Commencement Date"), subject to certain terms and conditions as hereinafter set forth, and Executive has indicated

his willingness to accept such employment;

NOW, THEREFORE, in consideration of the mutual promises and covenants hereinafter set forth, the parties agree as follows:

1. The employment of Executive by Employer will commence on the Commencement Date and, unless terminated on an earlier date in the manner hereinafter provided, shall terminate on the third anniversary of the Commencement Date (the "Term"). During the term of the employment hereunder, Executive will be employed by Employer as a Vice President of employer and will paid an annual salary of not less than \$_____ _____("Base , 199 , and Salary"). By thereafter, Employer will review Executive's salary on an annual basis in accordance with Employer's policies, to determine appropriate increases, if any. In addition to salary, Executive will receive bonus payments as determined from time to time by Employer's Board of Directors or the Compensation Committee thereof. Any such payment with respect to a calendar year will be made in the first quarter of the following year but shall be deemed earned and due and owing so long as Executive is employed on December 31st of the applicable calendar year regardless of his status as of the payment date.

2. It is contemplated that, in connection with his employment hereunder, Executive may be required to incur reasonable and necessary travel, business entertainment and other business expenses. Employer agrees to reimburse Executive for all reasonable and necessary travel, business entertainment and other business expenses incurred or expended by him incident to the performance of his duties hereunder, upon submission by Executive to Employer of vouchers or expense statements satisfactorily evidencing such expenses, and subject to review and approval by the Employer's Board of Directors.

3. Employer will provide retirement, employee benefits (pre- and post-retirement) and fringe benefit plans to Executive no less favorable than those made available to Employer's executive employees generally, to the extent that Executive qualifies under the eligibility provisions of such plans. Executive will be credited for his actual years of service with Pfizer Inc., the former owner of Employer's specialty minerals business, for purposes of eligibility and vesting under all such plans, and for purposes of calculating benefits under all such plans. Executive shall be entitled to five (5) weeks of paid vacation each year.

4. Executive agrees that he shall use his best efforts to promote and protect the interest of Employer, its subsidiaries and related corporations, and to devote his full working time, attention and energy to performing the duties of his position.

5. In the event of the Permanent Disability (as defined below) of Executive during the Term, Employer shall have the right, upon written notice to the Executive, to terminate his employment hereunder, effective upon the giving of such notice. Upon such termination, Employer shall be discharged and released from any further obligations under this Agreement, but Executive shall have the obligations provided for in Section 9 hereof. Disability benefits, if any, due under applicable plans and programs of the Employer shall be determined under the provisions of such plans and programs. For purposes of this Section 5, "Permanent Disability" means any physical or mental disability or incapacity which permanently renders Executive incapable of performing the services required of him by Employer. 6. In the event of the death of Executive during the Term, the salary to which Executive is entitled hereunder shall continue to be paid through the end of the month in which death occurs, to the last beneficiary designated by the Executive by written notice to Employer, or, failing such designation, to his estate. Executive's designated beneficiary or personal representative, as the case may be, shall accept the payments provided for in this Section 6 in full discharge and release of Employer of and from any further obligations under this Agreement. Any other benefits due under applicable plans and programs of Employer shall be determined under the provisions of such plans and programs.

7. (a) In the event during the Term Employer terminates the employment of Executive for reasons other than for Cause (as defined below) or Executive resigns for Good Reason (as defined below), Executive will be paid his Base Salary through the end of the Term, plus any bonuses deemed earned and due and owing as specified in Section 1 of this Agreement, less any severance payments paid Executive pursuant to Employer policies.

(b) Executive shall be required to mitigate the amount of any payment provided for pursuant to Section 7(a) by seeking other comparable employment within a reasonable commuting distance of his home, taking into account the provisions of Section 9 of this Agreement. Anything in this Agreement to the contrary notwithstanding, in the event that Executive provides services for pay to anyone other than Employer or any of its affiliates or subsidiaries from the date Executive's employment hereunder is terminated until the end of the Term, the amounts to be paid to Executive during such period pursuant to this Agreement shall be reduced by the amounts of salary, bonus or

other cash compensation earned by Executive during such period as a result of Executive's performing such services.

- (c) For purposes of this Agreement:
 - (i) "Cause" shall be limited to the following:

(A) Executive shall have failed to perform any of his material obligations as set forth herein, provided that Employer has advised Executive of such failure and given Executive a reasonable period of time to cure such failure and Executive has failed to do so;

(B) Executive shall commit acts constituting(i) a felony involving moral turpitude materiallyadversely reflecting on the Employer or (ii) fraud ortheft against Employer;

(ii) "Good Reason" shall mean termination at the election of Executive based on any of the following:

(A) The assignment to Executive of any duties substantially inconsistent with his status as Vice President of Employer or a substantial adverse alteration in the nature or status of his responsibilities pursuant to this Agreement, except in connection with the termination of his employment for Cause, or normal retirement, death, or by the Executive other than for Good Reason;

(B) A reduction on Executive's fringe or retirement benefits as in effect on the date hereof

that is not applied by Employer to executives generally or a reduction by Employer in Executive's Base Salary;

(C) The merger or consolidation of Employer into or with any other entity, or the sale of all or substantially all of the assets of Employer to an unaffiliated entity unless the entity which survives such merger or to whom such assets are transferred shall assume and agree to perform the obligations of Employer hereunder pursuant to an instrument reasonably acceptable to Executive; or

(D) Separation of Executive's office location from the principal corporate office of Employer or relocation outside the contiguous United States.

8. Employer shall have the right to terminate this Agreement immediately with no further liability under the terms of this Agreement should Executive terminate his employment without Good Reason, or if Executive is discharged by Employer for Cause, subject to payments that are due under this Agreement, through the date of termination.

9. (a) Executive agrees that during the term of his employment hereunder and, subject to the last sentence of this Section 9(a), during the further period of two (2) years after the termination of such employment, Executive shall not, without the prior written approval of Employer, directly or indirectly through any other person, firm or corporation, (i) engage or participate in or become employed by or render advisory or other services to or for any person, firm or corporation, or in connection with any business enterprise, which is, directly or indirectly, in competition with any of the business operations or activities of Employer, or (ii) solicit, raid, entice or induce any such person who on the date of termination of employment of Executive is, or within the last six (6) months of Executive's employment by Employer was, an employee of Employer, to become employed by any person, firm or corporation which is, directly or indirectly, in competition with any of the business operations or activities of Employer, and Executive shall not approach any such employee for such purpose or authorize or knowingly approve the taking of such actions by any other person; provided, however, that Executive shall not be bound by the restrictions contained in clause (i) of this Section 9(a) if Employer terminates his employment during the terms of this agreement other than for "Cause" (as defined in Section 7c) hereof). The foregoing restrictions shall apply to the geographical areas where Employer does business and/or did business during the term of Executive's employment and all places where, at the date of termination of employment of Executive, Employer had plans or reasonable expectations to do business; provided that if any Court construes any portion of this provision or clause of this Agreement, or any portion thereof, to be illegal, void or unenforceable because of the duration of such provision or the area or matter covered thereby, such Court shall reduce the duration, area, or matter of such provision and, in its reduced form, such provision shall then be enforceable and shall be enforced. Notwithstanding the provisions of this Section 9, Employer shall be entitled to enforce the provisions of Section 9(a)(i) following the end of Executive's term of employment hereunder only if Employer continues to pay Executive an amount equal to the Base Salary that Executive was receiving at the time of such termination.

(b) Recognizing that the knowledge, information and relationship with customers, suppliers, and agents, and the knowledge of Employer's and its subsidiary companies' business methods, systems, plans and policies which Executive shall hereafter establish, receive or obtain as an employee of Employer or its subsidiary companies, are valuable and unique assets of the respective businesses of Employer and its subsidiary companies, Executive agrees that, during and after the term of his employment hereunder, he shall not (otherwise than pursuant to his duties hereunder) disclose, without the prior written approval of Employer, any such knowledge or information pertaining to Employer or any of its subsidiary companies, their business, personnel or policies, to any person, firm, corporation or other entity, for any reason or purpose whatsoever. The provisions of this Section 9b) shall not apply to information which is or shall become generally known to the public or the trade (other than by reason of Executive's breach of his obligations hereunder), information which is or shall become available in trade or other publications, and information which Executive is required to disclose by law or an order of a court of competent jurisdiction. If Executive is required by law or a court order to disclose such information, he shall notify Employer of such requirement and provide Employer an opportunity (if Employer so elects) to contest such law or court order.

10. Executive agrees that Employer shall withhold from any and all payments required to be made to Executive pursuant to this Agreement, all federal, state, local and/or other taxes which Employer determines are required to be withheld in accordance with applicable statutes and/or regulations from time to time in effect.

11. This Agreement shall be construed under the laws of the State of New York.

12. This Agreement supersedes all prior negotiations and understandings of any kind with respect to the subject matter hereof and contains all of the terms and provision of agreement between the parties hereto with respect to the subject matter hereof. Any representation, promise or condition, whether written or oral, not specifically incorporated herein, shall be of no binding effect upon the parties.

13. (a) If any portion of this Agreement is held invalid or unenforceable by a court of competent jurisdiction, that portion only shall be deemed deleted as though it had never been included herein but the remainder of this Agreement shall remain in full force and effect.

(b) Executive acknowledges and agrees that Employer's remedies at law for a breach or threatened breach of any of the provisions of Section 9 would be inadequate and, in recognition of this fact, Executive agrees that, in the event of such a breach or threatened breach, in addition to any remedies at law, Employer, without posting any bond, shall be entitled to obtain equitable relief in the form of specific performance, temporary restraining order, temporary or permanent injunction or any other equitable remedy which may then be available.

(c) This Agreement shall not be assignable by Executive.

14. No modification, termination or waiver of any provision of this Agreement shall be valid unless it is in writing and signed by both parties hereto.

15. Employer represents that it has all requisite power and

authority to execute and deliver this Agreement and to perform its obligations under this Agreement, and that this Agreement is enforceable against it in accordance with its terms.

MINERALS TECHNOLOGIES INC.

By: Name: Jean-Paul Valles Title: Chairman and Chief Executive Officer

Agreed to by:

MINERALS TECHNOLOGIES INC.

and

CHEMICAL BANK

as Rights Agent

Rights Agreement

Dated as of October 26, 1992

TABLE OF CONTENTS

1.	Certain Definitions	2
2.	Appointment of Rights Agent	15
3.	Issuance of Right Certificates	15
4.	Form of Right Certificates	19
5.	Countersignature and Registration	20
6.	Transfer, Split Up, Combination and Exchange of Right Certificates; Mutilated, Destroyed, Lost or Stolen Right Certificates	22
7.	Exercise of Rights; Exercise Price; Expiration Date of Rights	24
8.	Cancellation and Destruction of Right Certificates	29
9.	Reservation and Availability of Shares of Preferred Stock	30
10.	Preferred Stock Record Date	33
11.	Adjustment of Exercise Price or Number of Shares	34
12.	Certification of Adjusted Exercise Price or Number of Shares	45
13.	Consolidation, Merger or Sale or Transfer of Assets or Earning Power	46
14.	Fractional Rights and Fractional Shares	54
15.	Rights of Action	56
16.	Agreement of Right Holders	57
17.	Right Certificate Holder Not Deemed a Stockholder	58

18.	Concerning the Rights Agent	59
19.	Merger or Consolidation of, or Change in Name of, the	
	Rights Agent	60

Section

20.	Duties of Rights Agent	62		
21.	Change of Rights Agent	65		
22.	Issuance of New Right Certificates	68		
23.	Redemption	68		
24.	Notice of Proposed Actions	71		
25.	Notices	73		
26.	Supplements and Amendments	74		
27.	Successors	76		
28.	Benefits of this Rights Agreement	76		
29.	Delaware Contract	77		
30.	Counterparts	77		
31.	Descriptive Headings	77		
32.	Severability	77		
Exhibit A Summary of Rights Exhibit B Form of Right Certificate				

Exhibit C -- Form of Certificate of Designations of Series A Junior Preferred Stock

ii

RIGHTS AGREEMENT

Agreement, dated as of October 26, 1992, by and between MINERALS TECHNOLOGIES INC., a Delaware corporation (the "Company"), and CHEMICAL BANK, a New York banking corporation (the "Rights Agent").

WITNESSETH:

WHEREAS, on October 26, 1992, the Board of Directors of the Company authorized the issuance of, and declared a dividend payable in, one right (a "Right") for each share of Common Stock, \$0.10 par value per share, of the Company outstanding as of the close of business on November 6, 1992 (the "Record Date"), each such Right representing the right to purchase one one-hundredth of a share of Series A Junior Preferred Stock of the Company ("Preferred Stock") having the rights and preferences set forth in the form of Certificate of Designations attached hereto as Exhibit C authorized by the Board of Directors on October 26, 1992, upon the terms and subject to the conditions hereinafter set forth; and

WHEREAS, the Board of Directors of the Company further authorized the issuance of one Right (subject to adjustment) with respect to each share of Common Stock which may be issued between the Record Date and the earlier to

occur of the Expiration Date or the Final Expiration Date (as such terms are hereinafter defined);

NOW, THEREFORE, in consideration of the premises and the mutual agreements herein set forth, the parties hereby agree as follows: Section 1. Certain Definitions. For purposes of this Agreement, the following terms shall have the meanings indicated:

(a) "Acquiring Person" shall mean any Person (as such term is hereinafter defined) who or which, together with all Affiliates (as such term is hereinafter defined) and Associates (as such term is hereinafter defined) of such Person, shall be the Beneficial Owner (as such term is hereinafter defined) of 15% or more of the shares of Voting Stock (as such term is hereinafter defined) of the Company then outstanding; provided that, an Acquiring Person shall not include an (i) Exempt Person (as such term is hereinafter defined), or (ii) any Person, together with all Affiliates and Associates of such Person, who or which would be an Acquiring Person solely by reason of (A) being the Beneficial Owner of shares of Voting Stock of the Company, the Beneficial

2

Ownership of which was acquired by such Person pursuant to any action or transaction or series of related actions or transactions approved by the Board of Directors before such Person otherwise became an Acquiring Person or (B) a reduction in the number of issued and outstanding shares of Voting Stock of the Company pursuant to a transaction or a series of related transactions approved by the Board of Directors of the Company; provided further, that in the event such Person described in this clause (ii) does not become an Acquiring Person by reason of subclause (A) or (B) of this clause (ii), such Person nonetheless shall become an Acquiring Person in the event such Person thereafter acquires Beneficial Ownership of an additional 1% of the Voting Stock of the Company, unless the acquisition of such additional Voting Stock would not result in such Person becoming an Acquiring Person by reason of subclause (A) or (B) of this clause (ii). Notwithstanding the foregoing, if the Board of Directors of the Company determines in good faith (but only if at the time of such determination by the Board of Directors there are then in office

3

not less than two Continuing Directors and such action is approved by a majority of the Continuing Directors then in office) that a Person who would otherwise be an "Acquiring Person" as defined pursuant to the foregoing provisions of this paragraph (a) has become such inadvertently, and such Person divests as promptly as practicable a sufficient number of shares of Common Stock so that such Person would no longer by an "Acquiring Person" as defined pursuant to the foregoing provisions of this paragraph (a), then such Person shall not be deemed an "Acquiring Person" for any purposes of this Rights Agreement.

(b) "Affiliate" shall have the meaning ascribed to such term in Rule 12b-2 of the General Rules and Regulations under the Securities Exchange Act of 1934, as amended ("Exchange Act"), as in effect on the date of this Rights Agreement.

(c) "Associate" of a Person shall mean (i) with respect to a corporation, any officer or director thereof or of any Subsidiary (as such term is hereinafter defined) thereof, or any Beneficial Owner (as such term is hereinafter defined) of 10% or more of any class of equity

security thereof, (ii) with respect to an association, any officer or director thereof or of a Subsidiary thereof, (iii) with respect to a partnership, any general partner thereof or any limited partner thereof who is, directly or indirectly, the Beneficial Owner of a 10% ownership interest therein, (iv) with respect to a business trust, any officer or trustee thereof or of any Subsidiary thereof, (v) with respect to any other trust or an estate, any trustee, executor or similar fiduciary or any Person who has a 15% or greater interest as a beneficiary in the income from or principal of such trust or estate, (vi) with respect to a natural person, any relative or spouse of such person, or any relative of such spouse, who has the same home as such person, and (vii) any Affiliate of such Person.

(d) A person shall be deemed the "Beneficial Owner" of, or to "Beneficially Own", any securities (and correlative terms shall have correlative meanings):

(i) which such Person or any of such Person's Affiliates or Associates beneficially owns,

5

directly or indirectly, for purposes of Section 13(d) of the Exchange Act and Regulations 13D or 13G thereunder (or any comparable or successor law or regulation), in each case as in effect on the date hereof; or

(ii) which such Person or any of such Person's Affiliates or Associates has (A) the right to acquire (whether such right is exercisable immediately or only after the passage of time or the fulfillment of a condition or both) pursuant to any agreement, arrangement or understanding, or upon the exercise of conversion rights, exchange rights, other rights (other than these Rights), warrants or options, or otherwise; provided, however, that a Person shall not be deemed the "Beneficial Owner" of, or to "Beneficially Own", securities tendered pursuant to a tender or exchange offer made by such Person or any of such Person's Affiliates or Associates until such tendered securities are accepted for purchase or exchange or (B) the right to vote, alone or in concert with others, pursuant to any

6

agreement, arrangement or understanding (whether or not in writing); provided, however, that a Person shall not be deemed the "Beneficial Owner" of, or to "Beneficially Own", any securities if the agreement, arrangement or understanding to vote such security (1) arises solely from a revocable proxy or consent given in response to a proxy or consent solicitation made pursuant to, and in accordance with, the applicable rules and regulations under the Exchange Act and (2) is not at the time reportable by such Person on a Schedule 13D report under the Exchange Act (or any comparable or successor report), other than by reference to a proxy or consent solicitation being conducted by such Person; or

(iii) which are beneficially owned, directly or indirectly, by any other Person with which such Person or any of such Person's Affiliates or Associates has any agreement, arrangement or understanding (whether or not in writing) for the purpose

7

of acquiring, holding, voting (except as described in clause (B) of subparagraph (ii) of this paragraph (d)) or disposing of any securities of the Company; provided, however, that for purposes of determining Beneficial ownership of securities under this Rights Agreement, officers and directors of the Company solely by reason of their status as such shall not

4

constitute a group (notwithstanding that they may be Associates of one another or may be deemed to constitute a group for purposes of Section 13(d) the Exchange Act) and shall not be deemed to own shares owned by another officer or director of the Company.

Notwithstanding anything in this paragraph (d) to the contrary, a Person shall not be deemed the "Beneficial Owner" of, or to "Beneficially Own," any security beneficially owned by another Person solely by reason of an agreement, arrangement or understanding with such other Person for the purposes of: (x) soliciting the Company's stockholders for the election of director nominees or any other stockholder

8

resolution, the formation of and membership on any committee for the purpose of promoting or opposing any stockholder resolution or for electing a slate of nominees to the Company's Board of Directors, service on such a slate of nominees, or agreement to a slate of director nominees, provided that such other Person retains the right at any time to withdraw as a nominee or member of any such committee, and to withhold or revoke any vote or proxy for or against any such stockholder resolution or for such slate of nominees; (y) entering into revocable voting agreements or the granting or solicitation of revocable proxies with respect to any of the matters described in the foregoing clause (x); or (z) the sharing of expenses and the indemnification against expenses and liabilities by any such other Person with respect to expenses incurred or conduct occurring during the time such other Person is a nominee or a member of any such committee described in the foregoing clause (x). Further, notwithstanding anything in this paragraph (d) to the contrary, a Person engaged in the business of underwriting securities shall not be deemed the "Beneficial

9

Owner" of, or to "Beneficially Own," any securities acquired in good faith in a firm commitment underwriting until the expiration of forty days after the date of such acquisition.

(e) "Business Day" shall mean any day other than a Saturday, Sunday, or a day on which banking institutions in the State of New York are authorized or obligated by law or executive order to close.

(f) "Close of Business" on any given date shall mean 5:00 P.M., New York time, on such date; provided, however, that if such date is not a Business Day it shall mean 5:00 P.M., New York time, on the next succeeding Business Day.

(g) "Common Stock" when used with reference to the Company shall mean the Common Stock (presently \$0.10 par value) of the Company. "Common Stock" when used with reference to any Person other than the Company which shall be organized in corporate form shall mean the capital stock or other equity security with the greatest per share voting power of such Person. "Common Stock" when used with reference to any Person other than the Company which shall not be

10

organized in corporate form shall mean units of beneficial interest which shall represent the right to participate in profits, losses, deductions and credits of such Person and which shall be entitled to exercise the greatest voting power per unit of such Person. (h) "Continuing Director" shall mean any member of the Board of Directors, while such person is a member of the Board of Directors, who is not an Acquiring Person, or an Affiliate or Associate of any Acquiring Person, or a representative or nominee of an Acquiring Person or of any such Affiliate or Associate, and who either (i) was a member of the Board of Directors prior to the time that any Person became an Acquiring Person (other than pursuant to a Qualifying Tender Offer) or (ii) subsequently became a member of the Board of Directors, and whose nomination for election or election to the Board of Directors was recommended or approved by a majority of the Continuing Directors then on the Board of Directors.

(i) "Distribution Date" shall have the meaning set forth in Section 3(b) hereof.

11

(j) "Exchange Act" shall have the meaning set forth in Section 1(b) hereof.

(k) "Exempt Person" shall mean (i) Pfizer Inc., for so long as such corporation beneficially owns 15% or more of the shares of Voting Stock of the Company, (ii) the Company, (iii) any Subsidiary of the Company or (iv) any employee benefit plan or employee stock plan of the Company or any Subsidiary of the Company, or any trust or other entity organized, appointed, established or holding Common Stock for or pursuant to the terms of any such plan.

(1) "Exercise Price" shall have the meaning set forth in Sections 4 and 7(b) hereof.

(m) "Expiration Date" shall have the meaning set forth in Section 7(a) hereof.

(n) "Fair Market Value" of any property shall mean the fair market value of such property as determined in accordance with Section 11(b) hereof.

(o) "Final Expiration Date" shall have the meaning set forth in Section 7(a) hereof.

(p) "Person" shall mean any individual, firm, corporation or other entity.

12

(q) "Principal Party" shall have the meaning set forth in Section 13(b) hereof.

(r) "Qualifying Tender Offer" shall mean a tender or exchange offer for all outstanding shares of Common Stock of the Company approved by a majority of the Board of Directors (provided that at the time of such approval of the Board of Directors there are then in office not less than two Continuing Directors and such offer is approved by a majority of the Continuing Directors then in office), after taking into account the potential long-term value of the Company and all other factors that they consider relevant.

(s) "Redemption Price" shall have the meaning set forth in Section 23(a) hereof.

(t) "Right Certificate" shall have the meaning set forth in Section 3(d) hereof.

(u) "Stock Acquisition Date" shall mean the first date on which there shall be a public announcement by the Company or an Acquiring Person that an Acquiring Person has become such (which, for purposes of this definition, shall include, without limitation, a report filed pursuant to Section 13(d) of the Exchange Act) or such earlier

13

date as a majority of the Continuing Directors shall become aware of the existence of an Acquiring Person.

(v) "Subsidiary" of a Person shall mean any corporation or other

entity of which securities or other ownership interests having voting power sufficient to elect a majority of the board of directors or other persons performing similar functions are beneficially owned, directly or indirectly, by such Person or by any corporation or other entity that is otherwise controlled by such Person.

(w) "Summary of Rights" shall have the meaning set forth in Section 3(a) hereof.

(x) "Trading Day" shall have the meaning set forth in Section 11(b) hereof.

(y) "Transfer Tax" shall mean any tax or charge, including any documentary stamp tax, imposed or collected by any governmental or regulatory authority in respect of any transfer of any security, instrument or right, including Rights, shares of Common Stock and shares of Preferred Stock.

14

(z) "Voting Stock" shall mean (i) the Common Stock of the Company and (ii) any other shares of capital stock of the Company entitled to vote generally in the election of directors or entitled to vote together with the Common Stock in respect of any merger, consolidation, sale of all or substantially all of the Company's assets, liquidation, dissolution or winding up.

Any determination required to be made by the Board of Directors of the Company for purposes of applying the definitions contained in this Section 1 shall be made by the Board of Directors in its good faith judgment, which determination shall be binding on the Rights Agent and the holders of the Rights.

Section 2. Appointment of Rights Agent. The Company hereby appoints the Rights Agent to act as agent for the Company in accordance with the terms and conditions hereof, and the Rights Agent hereby accepts such appointment. The Company may from time to time appoint such Co-Rights Agents as it may deem necessary or desirable.

Section 3. Issuance of Right Certificates.

(a) On the Record Date (or as soon as practicable thereafter), the Company or the Rights Agent shall send a copy of a Summary of Rights, in substantially the form

15

attached hereto as Exhibit A (the "Summary of Rights"), by first class mail, postage prepaid, to each record holder of the Common Stock as of the close of business on the Record Date, at the address of such holder shown on the records of the Company.

(b) Until the close of business on the day which is the earlier of (i) the tenth day after the Stock Acquisition Date or (ii) the tenth business day (or such later date as may be determined by action of the Board of Directors (but only if at the time of such determination there are then in office not less than two Continuing Directors and such action is approved by a majority of the Continuing Directors then in office) prior to such time as any Person becomes an Acquiring Person) after the date of the commencement by any Person (other than an Exempt Person) of, or the first public announcement of the intent of any Person (other than an Exempt Person) to commence, a tender or exchange offer upon the successful consummation of which such Person, together with its Affiliates and Associates, would be the Beneficial Owner of 30% or more of the then outstanding shares of Voting Stock of the Company (irrespective of whether any shares are actually purchased pursuant to any such offer) (the earlier of such dates being herein referred to as the "Distribution Date"), (x) the Rights shall be evidenced by the certificates for Common Stock registered in the name of the holders of Common Stock (together with, in the case of certificates for Common Stock outstanding as of the Record Date, the Summary of Rights) and not by separate Right certificates and the record holders of such certificates for Common Stock shall be the record holders of the Rights represented thereby and (y) each Right shall be transferable only simultaneously and together with the transfer of a share of Common Stock (subject to adjustment as hereinafter provided). Until the Distribution Date (or, if earlier, the Expiration Date or Final Expiration Date), the surrender for transfer of any certificate for Common Stock shall constitute the surrender for transfer of the Right or Rights associated with the Common Stock evidenced thereby, whether or not accompanied by a copy of the Summary of Rights.

(c) Rights shall be issued in respect of all shares of Common Stock that become outstanding after the Record Date but prior to the earlier of the Distribution Date, the Expiration Date or the Final Expiration Date and, in certain circumstances provided in Section 22 hereof, may be issued in respect of shares of Common Stock that become outstanding after the Distribution Date. Certificates for Common Stock issued (including, without limitation,

17

certificates issued upon original issuance, disposition from the Company's treasury or transfer or exchange of Common Stock) after the Record Date but prior to the earliest of the Distribution Date, the Expiration Date, or the Final Expiration Date (or, in certain circumstances as provided in Section 22 hereof, after the Distribution Date) shall have impressed, printed, written or stamped thereon or otherwise affixed thereto the following legend:

This certificate also evidences and entitles the holder hereof to the same number of Rights (subject to adjustment) as the number of shares of Common Stock represented by this certificate, such Rights being on the terms provided under the Rights Agreement between Minerals Technologies Inc. and Chemical Bank (the "Rights Agent"), dated as of October 26, 1992, as it may be amended from time to time (the Rights Agreement"), the terms of which are incorporated herein by reference and a copy of which is on file at the principal executive offices of Minerals Technologies Inc. Under certain circumstances, as set forth in the Rights Agreement, such Rights shall be evidenced by separate certificates and shall no longer be evidenced by this certificate. Minerals Technologies Inc. shall mail to the registered holder of this certificate a copy of the Rights Agreement without charge within five days after receipt of a written request therefor. Under certain circumstances as provided in Section 7(e) of the Rights Agreement, Rights issued to or Beneficially owned by Acquiring Persons or their Affiliates or Associates (as such terms are defined in the Rights Agreement or any subsequent holder of

18

such Rights shall be null and void and may not be transferred to any Person.

(d) As soon as practicable after the Distribution Date, the Company will prepare and execute, the Rights Agent will countersign, and the Company will send or cause to be sent (and the Rights Agent will, if requested, send), by first class mail, postage prepaid, to each record holder of the Common Stock as of the close of business on the Distribution Date, as shown by the records of the Company, at the address of such holder

16

shown on such records, a certificate in the for provided by Section 4 hereof (a "Right Certificate"), evidencing one Right (subject to adjustment as provided herein) for each share of Common Stock so held. As of and after the Distribution Date, the Rights shall be evidenced solely by Right Certificates and may be transferred by the transfer of the Right Certificate as permitted hereby, separately and apart from any transfer of one or more shares of Common Stock.

Section 4. Form of Right Certificates.

The Right Certificates (and the forms of election to purchase shares, certificate and assignment to be printed on the reverse thereof), when, as and if issued, shall be substantially in the form set forth in Exhibit B hereto and may have such marks of identification or designation and such legends, summaries or endorsements printed thereon as

19

may be required to comply with any law or with any rule or regulation made pursuant thereto or with any rule or regulation of any stock exchange on which the Common Stock or the Rights may from time to time be listed or as the Company may deem appropriate to conform to usage or otherwise and as are not inconsistent with the provisions of this Rights Agreement. Subject to the provisions of Section 22 hereof, Right Certificates evidencing Rights whenever issued, (i) shall be dated as of the date of issuance of the Rights they represent and (ii) subject to adjustment from time to time as provided herein, on their face shall entitle the holders thereof to purchase such number of shares (including fractional shares which are integral multiples of one-hundredth of a share) of Preferred Stock as shall be set forth therein at the price payable upon exercise of a Right provided by Section 7(b) hereof as the same may from time to time be adjusted as provided herein (the "Exercise Price").

Section 5. Countersignature and Registration.

(a) Each Right Certificate shall be executed on behalf of the Company by its Chairman of the Board, President or any Vice President, either manually or by facsimile signature, and have affixed thereto the Company's seal or a facsimile thereof which shall be attested by the Secretary or an Assistant Secretary of the Company, either

20

manually or by facsimile signature. Each Right Certificate shall be countersigned by the Rights Agent either manually or by facsimile signature and shall not be valid for any purpose unless so countersigned. In case any officer of the Company who shall have signed any Right Certificate shall cease to be such officer of the Company before countersignature by the Rights Agent and issuance and delivery of the certificate by the Company, such Right Certificate, nevertheless, may be countersigned by the Rights Agent and issued and delivered with the same force and effect as though the person who signed such Right Certificate may be signed on behalf of the Company by any person who, on the date of the execution of such Right Certificate, although at the date of the execution of this Rights Agreement any such person was not such an officer.

(b) Following the Distribution Date, the Rights Agent will keep or cause to be kept, at its principal office or one or more offices designated as the appropriate place for surrender of Right Certificates upon exercise or transfer, and in such other locations as may be required by law, books for registration and transfer of the Right Certificates issued hereunder. Such books shall show the names and addresses of the respective holders of the Right Certificates, the number of Rights evidenced on its face by each of the Right Certificates and the date of each of the Right Certificates.

Section 6. Transfer, Split Up, Combination and Exchange of Right Certificates; Mutilated, Destroyed, Lost or Stole Right Certificates.

(a) Subject to the provisions of Section 7(e), 7(f) and 14 hereof, at any time after the Close of Business on the Distribution Date, and at or prior to the Close of Business on the earlier of the Expiration Date or the Final Expiration Date, any Right Certificate, may be (i) transferred or (ii) split up, combined or exchanged for one or more other right Certificates, entitling the registered holder to purchase a like number of shares of Preferred Stock as the Right Certificate or Rights Certificates surrendered then entitled such holder to purchase. Any registered holder desiring to transfer any Right Certificate shall surrender the Right Certificate at the office of the Rights Agent designated for the surrender of Right Certificates with the form of certificate and assignment on the reverse side thereof duly endorsed (or enclosed with such Right Certificate a written instrument of transfer in

22

form satisfactory to the Company and the Rights Agent), duly executed by the registered holder thereof or his attorney duly authorized in writing, and with such signature duly guaranteed. Any registered holder desiring to split up, combine or exchange any Right Certificate shall make such request in writing delivered to the Rights Agent, and shall surrender the Right Certificate to be split up, combined or exchanged at the office of the Rights Agent designated therefor. Thereupon, the Rights Agent shall countersign and deliver to the person entitled thereto a Right Certificate or Right Certificates, as the case may be, as so requested. The Company may require payment of a sum sufficient to cover any Transfer Tax that may be imposed in connection with any transfer, split up, combination or exchange of any Right Certificates.

(b) Subject to the provisions of Section 7(e), 7(f) and 14 hereof, upon receipt by the Company and the Rights Agent of evidence reasonably satisfactory to them of the loss, theft, destruction or mutilation of a Right Certificate, and, in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to them and, if requested by the Company, reimbursement to the Company and the Rights Agent of all reasonable expenses incidental thereto, or upon surrender to the Rights Agent

23

and cancellation of the Right Certificate if mutilated, the Company shall issue and deliver a new Right Certificate of like tenor to the Rights Agent for delivery to the registered owner in lieu of the Right Certificate so lost, stolen, destroyed or mutilated.

Section 7. Exercise of Rights; exercise Price; Expiration Date of Rights.

(a) The Rights shall not be exercisable until, and shall become exercisable on, the Distribution Date (unless otherwise provided herein, including, without limitation, the restrictions on exercisability set forth in Section 7(e) and 23(a) hereof). Except as otherwise provided herein, the Rights may be exercised, in whole or in part, at any time commencing with the Distribution Date upon surrender of the Right Certificate, with the form of election to purchase and certificate on the reverse side thereof duly executed (with signatures duly guaranteed), to the Rights Agent at the principal office of the Rights Agent in New York, New York, together with payment of the Exercise Price for each Right exercised, subject to adjustment as hereinafter provided, at or prior to the Close of Business on the earlier of (i) October 26, 2002 (the "Final Expiration Date") or (ii) the date on which the Rights are

24

redeemed as provided in Section 23 hereof (such earlier date being herein referred to as the "Expiration Date").

(b) The Exercise Price shall initially be \$65.00 for each one onehundredth (1/100) of a share of Preferred Stock issued pursuant to the exercise of a Right. The Exercise Price and the number of shares of Preferred Stock or other securities to be acquired upon exercise of a Right shall be subject to adjustment from time to time as provided in Sections 11 and 13 hereof. The Exercise Price shall be payable in lawful money of the United States of America, in accordance with paragraph (c) below.

(c) Except as otherwise provided herein, upon receipt of a Right Certificate representing exercisable Rights with the form of election to purchase duly executed, accompanied by payment by certified check, cashier's check, bank draft or money order payable to the Company or the Rights Agent of the Exercise Price for the shares to be purchased and an amount equal to any applicable Transfer Tax required to be paid by the holder of the Right Certificate in accordance with Section 9(e) hereof, the Rights Agent shall thereupon promptly (i) requisition from any transfer agent of the Preferred Stock of the Company one or more certificates representing the number of shares of Preferred Stock to be so purchased, and the Company hereby authorizes

25

and directs such transfer agent to comply with all such requests, (ii) as provided in Section 14(b), at the election of the Company, cause depositary receipts to be issued in lieu of fractional shares of Preferred Stock, (iii) if the election provided for in the immediately preceding clause (ii) has not been made, requisition from the Company the amount of cash to be paid in lieu of the issuance of fractional shares in accordance with Section 14(b) hereof, (iv) after receipt of such Preferred Stock certificates and, if applicable, depositary receipts, cause the same to be delivered to or upon the order of the registered holder of such Right Certificate, registered in such name or names as may be designated by such holder and (v) when appropriate, after receipt, promptly deliver such cash to or upon the order of the registered holder of such Right Certificate; provided, however, that in the case of a purchase of securities, other than Preferred Stock, pursuant to Section 13 hereof, the Rights Agent shall promptly take the appropriate actions corresponding in such case to that referred to in the foregoing clauses (i) through (v) of this Section 7(c). Notwithstanding the foregoing provisions of this Section 7(c), the Company may suspend the issuance of shares of Preferred Stock upon exercise of a Right for a reasonable period, not in excess of 90 days, during which

26

the Company seeks to register under the Securities Act of 1933, as amended (the "Act"), and any applicable securities law of any other jurisdiction, the shares of Preferred Stock to be issued pursuant to the Rights; provided, however, that nothing contained in this Section 7(c) shall relieve the Company of its obligations under Section 9(c) hereof.

(d) In case the registered holder of any Right Certificate shall exercise less than all the Rights evidenced thereby, a new Right Certificate evidencing Rights equivalent to the Rights remaining unexercised shall be issued by the Rights Agent to the registered holder of such Right Certificate or his assign, subject to the provisions of Section 14(b) hereof.

(e) Notwithstanding any provision of this Rights Agreement to the contrary, from and after the time (the "invalidation time") when any Person first becomes an Acquiring Person, other than pursuant to a Qualifying Tender Offer, any Rights that are beneficially owned by (x) such Acquiring Person (or any Associate or Affiliate of such Acquiring Person), (y) a transferee of such Acquiring Person (or any such Associate or Affiliate) who becomes a transferee after the invalidation time or (z) a transferee of such Acquiring Person (or any such Associate or Affiliate) who becomes a transferee after the invalidation time or (z) a transferee after the affiliate or Affiliate) who becomes a transferee prior to or concurrently

27

with the invalidation time pursuant to either (I) a transfer from the Acquiring Person to holders of its equity securities or to any Person with whom it has any continuing agreement, arrangement or understanding regarding the transferred Rights or (II) a transfer which the Board of Directors has determined is part of a plan, arrangement or understanding which has the purpose or effect of avoiding the provisions of this Section 7(e), and subsequent transferees of such Persons referred to in clause (y) and (z) above, shall be void without any further action and any holder of such Rights shall thereafter have no rights whatsoever with respect to such Rights under any provision of this Rights Agreement. The company shall use all reasonable efforts to ensure that the provisions of this Section 7(e) are complied with, but shall have no liability to any holder of Right Certificates or any other Person as a result of its failure to make any determination with respect to an Acquiring Person or its Affiliates, Associates or transferees hereunder. No Right Certificate shall be issued pursuant to Section 3 hereof that represents Rights beneficially owned by an Acquiring Person whose Rights would be void pursuant to the provisions of this Section 7(e) or any Associate or Affiliate thereof; no Right Certificate shall be issued at any time upon the transfer of any Rights

28

to an Acquiring Person whose Rights would be void pursuant to the provisions of this Section 7(e) or any Associate or Affiliate thereof or to any nominee of such Acquiring Person, Associate or Affiliate; and any Right Certificate delivered to the Rights Agent for transfer to an Acquiring Person whose Rights would be void pursuant to the provisions of this Section 7(e) shall be cancelled.

(f) Notwithstanding anything in this Agreement to the contrary, neither the Rights Agent nor the Company shall be obligated to undertake any action with respect to a registered holder upon the occurrence of any purported exercise as set forth in this Section 7 unless such registered holder shall have (i) completed and signed the certificate following the form of election to purchase set forth on the reverse side of the Right Certificate surrendered for such exercise and (ii) provided such additional evidence of the identity of the Beneficial Owner (or former Beneficial Owner) or Affiliates or Associates thereof as the Company shall reasonably request.

Section 8. Cancellation and Destruction of Right Certificates. All Right Certificates surrendered for the purpose of exercise, transfer, split up, combination or exchange shall, if surrendered to the Company or 29

for cancellation or in cancelled form, or, if surrendered to the Rights Agent, shall be canceled by it, and no Right Certificates shall be issued in lieu thereof except as expressly permitted by any of the provisions of this Rights Agreement. The Company shall deliver to the Rights Agent for cancellation and retirement, and the Rights Agent shall cancel and retire, any Right Certificate purchased or acquired by the Company otherwise than upon the exercise thereof. The Rights Agent shall deliver all cancelled Right Certificates to the Company, or shall, at the written request of the Company, destroy such cancelled Right Certificates, and in such case shall deliver a certificate of destruction thereof to the Company.

Section 9. Reservation and Availability of Shares of Preferred Stock. (a) The Company covenants and agrees that it will cause to be reserved and kept available out of its authorized and unissued shares of Preferred Stock or out of authorized and issued shares of Preferred Stock held in its treasury, such number of shares of Preferred Stock as will from time to time be sufficient to permit the exercise in full of all outstanding Rights.

(b) The Company shall use its best efforts to cause, from and after such time as the Rights become $% \left({{{\left({{{\left({{{}_{{\rm{s}}}} \right)}} \right)}_{\rm{s}}}} \right)$

30

exercisable, all shares of Preferred Stock issued or reserved for issuance in accordance with this Rights Agreement to be listed, upon official notice of issuance, upon the principal national securities exchange, if any, upon which the Common Stock is listed or, if the principal market for the common Stock is not on any national securities exchange, to be eligible for quotation in the national Association of Securities Dealers' Automated Quotation system or any successor thereto or other comparable quotation system.

(c) The Company covenants and agrees that it will take all such action as may be necessary to insure that all shares of Preferred Stock delivered upon exercise of Rights shall, at the time of delivery of the certificates for such shares (subject to payment of the Exercise Price in respect thereof), be duly and validly authorized and issued and fully paid and nonassessable shares.

(d) The Company shall use its best efforts to (i) file, as soon as practicable following the occurrence of the event described in Section 11(a)(ii), or as soon as is required by law following the Distribution Date, as the case may be, a registration statement under the Act, with respect to the shares of Preferred Stock purchasable upon exercise of the Rights on an appropriate form, (ii) cause such

31

registration statement to become effective as soon as practicable after such filing, and (iii) cause such registration statement to remain effective (with a prospectus at all times meeting the requirements of the Act) until the earlier of (A) the date as of which the Rights are no longer exercisable for Preferred Stock, and (b) the date of the expiration of the Rights. the company may temporarily suspend, for a period of time not to exceed ninety days, the issuance of shares of Preferred Stock upon exercise of a Right in order to prepare and file a registration statement under the Act and permit it to become effective. The Company will also take such action as may be appropriate under, or to ensure compliance with, the securities or "blue sky" laws of the various states in connection with the exercisability of the Rights. Notwithstanding any provision of this Agreement to the contrary, the Rights shall not be exercisable in any jurisdiction unless the requisite qualification in such jurisdiction shall have been obtained and until a registration statement under the Act (if required) shall have been declared effective.

(e) The Company covenants and agrees that it will pay when due and payable any and all federal and state Transfer Taxes which may be payable in respect of

32

the issuance or delivery of the Right Certificates or of any shares of Preferred Stock issued or delivered upon the exercise of Rights. The Company shall not, however, be required to pay any Transfer Tax which may be payable in respect of any transfer or delivery of a Right Certificate to a Person other than, or the issuance or delivery of certificates for Preferred Stock upon exercise of Rights in a name other than that of, the required holder of the Right Certificate, and the Company shall not be required to issue or deliver a Right Certificate or certificate for Preferred Stock to a Person other than such registered holder until any such Transfer Tax shall have been paid (any such Transfer Tax being payable by the holder of such Right Certificate at the time of surrender) or until it has been established to the Company's satisfaction that no such Transfer Tax is due.

Section 10. Preferred Stock Record Date. Each person in whose name any certificate for shares of Preferred Stock is issued upon the exercise of Rights shall for all purposes be deemed to have become the holder of record of the Preferred Stock represented thereby on, and such certificate shall be dated as of, the date upon which the Right Certificate evidencing such Rights was duly surrendered and payment of the Exercise Price (and any

33

applicable Transfer Taxes) was made; provided, however, that, if the date of such surrender and payment is a date upon which the Preferred Stock transfer books of the Company are closed, such Person shall be deemed to have become the record holder of such shares on, and such certificate shall be dated as of, the next succeeding business Day on which the Preferred Stock transfer books of the Company are open. Prior to the exercise of the Rights evidenced thereby, the holder of a Right Certificate, as such, shall not be entitled to any rights of a stockholder of the Company with respect to shares for which the Rights shall be exercisable, including, without limitation, the right to vote, to receive dividends or other distributions or to exercise any preemptive rights, and shall not be entitled to receive any notice of any proceedings of the Company, except as provided herein.

Section 11. Adjustment of exercise Price or Number of Shares. The Exercise Price and the number of shares of Preferred Stock which may be purchased upon exercise of a Right are subject to adjustment from time to time as provided in this Section 11.

(a) (i) In the event the Company shall at any time after the date of this Rights Agreement (A) declare or pay any dividend on Common Stock

payable in shares of Common Stock, (B) subdivide or split the outstanding shares of Common Stock into a greater number of shares or (C) combine or consolidate the outstanding shares of Common Stock into a smaller number of shares or effect a reverse split of the outstanding shares of Common Stock, then and in each such event the number of shares of Preferred Stock issuable upon the exercise of a Right after the record date for such event (if one shall have been established or, if not, after the date of such event) shall be the number of shares of Preferred Stock issuable immediately prior to such event multiplied by a fraction the numerator of which is the number of Rights outstanding immediately prior to such event and the denominator of which is the number of Rights outstanding immediately after such event and the Exercise Price after such event shall be the Exercise Price in effect immediately prior to such event multiplied by such fraction. If an event occurs which would require an adjustment under both this Section 11(a)(i) and Section 11(a)(ii) hereof, the adjustment provided for in this Section 11(a)(i) shall be in addition to, and

35

shall be made prior to, any adjustment required pursuant to Section 11(a)(ii).

(ii) In the event that any Person (other than an Exempt Person), alone or together with its Affiliates and Associates, shall become an Acquiring Person, except pursuant to a Qualifying Tender Offer, then, subject to the last sentence of Section 23(a) and except as otherwise provided in this Section 11, each holder of a Right, except as provided in Section 7(e) hereof, shall thereafter have the right to receive upon exercise of such Right in accordance with the terms of this Rights Agreement and payment of the Exercise Price, the greater of (1) the number of one one-hundredths of a share of Preferred Stock for which such Right was exercisable immediately prior to the first occurrence of the event described in this Section 11(a)(ii) or (2) such number of one one-hundredths of a share of Preferred Stock (determined pursuant to Section 11(b) hereof) on the date of such first occurrence, having a value equal to twice the Exercise Price; provided, however, that if the

36

transaction that would otherwise give rise to the foregoing adjustment is also subject to the provisions of Section 13 hereof, then only the provisions of Section 13 hereof shall apply and no adjustment shall be made pursuant to this Section 11(a)(ii).

(iii) In the event that the Company does not have available sufficient authorized but unissued Preferred Stock to permit the adjustments required pursuant to the foregoing subparagraph (i) or the exercise in full of the Rights in accordance with the foregoing subparagraph (ii), the Company shall take all such action as may be necessary to authorize and reserve for issuance such number of additional shares of Preferred Stock as may from time to time be required to be issued upon the exercise in full of all Rights from time to time outstanding and, if necessary, shall use its best efforts to obtain stockholder approval thereof. In lieu of issuing shares of Preferred Stock in accordance with the foregoing subparagraphs (i) and (ii), the Company may, if the Board of Directors determines (but only if at the time of such determination by the Board of Directors there

are then in office not less than two Continuing Directors and such action is approved by a majority of the Continuing Directors then in office) that such action is necessary or appropriate and not contrary to the interests of holders of Rights, elect to issue or pay, upon the exercise of the Rights, cash, property, shares of Preferred or Common Stock, or any combination thereof, having an aggregate Fair Market Value equal to the Fair Market Value of the shares of Preferred Stock which otherwise would have been issuable pursuant to Section 11(a)(ii), which Fair Market Value shall be determined by an investment banking firm selected by the Board of Directors (but only if at the time of such selection there are then in office not less than two Continuing Directors and such selection is approved by a majority of the Continuing Directors then in office). For purposes of the preceding sentence, the Fair Market Value of the Preferred Stock shall be as determined pursuant to Section 11(b). Subject to Section 23 hereof, any such election by the Board of Directors of the Company must be made and publicly announced within thirty (30) days

38

after the date on which the event described in Section 11(a)(ii) occurs.

(b) For the purpose of this Rights Agreement, the "Fair Market Value" of any share of Preferred Stock, Common Stock or any other stock or any Right or other security or any other property on any date shall be determined as provided in this Section 11(b). In the case of a publiclytraded stock or other security, the Fair Market Value on any date shall be deemed to be the average of the daily closing prices per share of such stock or per unit of such other security for the 30 consecutive Trading Days (as such term is hereinafter defined) immediately prior to such date; provided, however, that in the event that the Fair Market Value per share of any share of Common Stock is determined during a period which includes any date that is within 30 Trading Days after (i) the ex-dividend date for a dividend or distribution on such stock payable in shares of Common Stock or securities convertible into shares of Common Stock, or (ii) the effective date of any subdivision, split, combination, consolidation, reverse stock split or reclassification of such stock, then, and in each such case, the Fair Market Value shall be appropriately adjusted by the Board of Directors of the Company to take into account ex-dividend or post-effective date trading. The closing price for any day shall be the last sale price, regular way, or, in case no such sale takes place on such

39

day, the average of the closing bid and asked prices, regular way (in either case, as reported in the applicable transaction reporting system with respect to securities listed or admitted to trading on the New York Stock Exchange), or, if the securities are not listed or admitted to trading on the New York Stock Exchange, as reported in the applicable transaction reporting system with respect to securities listed on the principal national securities exchange on which such security is listed or admitted to trading; or, if not listed or admitted to trading on any national securities exchange, the last quoted price (or, if not so quoted, the average of the high bid and low asked prices) in the over-the-counter market, as reported by the National Association of Securities Dealers, Inc. Automated Quotation System ("NASDAQ") or such other system then in use; or, if no bids for such security are quoted by any such organization, the average of the closing bid and asked prices as furnished by a professional market maker making a market in such security selected by the Board of Directors of the Company. The term "Trading Day" shall mean a day on which the principal national securities exchange on which such security is listed 40

business or, if such security is not listed or admitted to trading on any national securities exchange, a Business Day. If a security is not publicly held or not so listed or traded, "Fair Market Value" shall mean the fair value per share of stock or per other unit of such other security, as determined by an independent investment banking firm experienced in the valuation of securities selected in good faith by the Board of Directors of the Company, or, if no such investment banking firm is, in the good faith judgment of the Board of Directors, available to make such determination, in good faith by the Board of Directors of the Company; provided, however, that for purposes of making the adjustment provided for by Section 11(a)(ii) hereof, the Fair Market Value of a share of Preferred Stock shall not be less than 100% of the product of the Fair Market Value of a share of Common Stock multiplied by the higher of the then Dividend Multiple or Vote Multiple applicable to the Preferred Stock (as defined in the Certificate of Designations relating to the Preferred Stock) and shall not exceed 105% of the product of the then Fair Market Value of a share of Common Stock multiplied by the higher of the then Dividend Multiple or Vote Multiple applicable to the Preferred Stock. In the case of property other than securities, the "Fair Market Value" thereof shall be

41

determined in good faith by the Board of Directors of the Company based upon such appraisals or valuation reports of such independent experts as the Board of Directors of the Company shall in good faith determine to be appropriate in accordance with good business practices and the interests of the holders of Rights. Any such determination of Fair Market Value shall be described in a statement filed with the Rights Agent and shall be binding upon the Rights Agent.

(c) All calculations under this Section 11 shall be made to the nearest cent or to the nearest one one-hundredth of a share, as the case may be.

(d) Irrespective of any adjustment or change in the Exercise Price or the number of shares of Preferred Stock issuable upon the exercise of the Rights, the Right Certificates theretofore and thereafter issued may continue to express the Exercise Price and the number of shares to be issued upon exercise of the Rights as in the initial Right Certificates issued hereunder but, nevertheless, shall represent the Rights as so adjusted.

(e) Before taking any action that would cause an adjustment reducing the purchase price per whole share of Preferred Stock upon exercise of the Rights below the then par value, if any, of the shares of Preferred Stock, the Company shall use its best efforts to take any corporate

42

action which may, in the opinion of its counsel, be necessary in order that the Company may validly and legally issue fully paid and non-assessable shares of such Preferred Stock at such adjusted purchase price per share.

(f) Anything in this Section 11 to the contrary notwithstanding, in the event of any reclassification of stock of the Company or any recapitalization, reorganization or partial liquidation of the Company or similar transaction, the Company shall be entitled to make such further adjustments in the number of shares of Preferred Stock which may be acquired upon exercise of the Rights, and such adjustments in the Exercise Price therefor, in addition to those adjustments expressly required by the other paragraphs of this Section 11, as the Board of Directors of the Company shall determine to be necessary or appropriate in order for the holders of the Rights in such event to be treated equitably and in accordance with the purpose and intent of this Rights Agreement or in order that any such event shall not, but for such adjustment, in the opinion of counsel to the Company, result in the stockholders of the Company being subject to any United States federal income tax liability by reason thereof.

(g) In the event the Company shall at any time after the Record Date make any distribution on the shares of

43

Common Stock of the Company whether by way of a dividend or a reclassification of stock, a recapitalization, reorganization or partial liquidation of the Company or otherwise, in cash or any debt security, debt instrument, real or personal property or any other property (other than any shares of Common Stock or other capital stock of the Company and other than any right or warrant to acquire any such shares, including any debt security convertible into or exchangeable for any such share, at less than the Fair Market Value of such shares) and the amount of such cash dividend or the Fair Market Value of such debt security, debt instrument or property exceeds 150% of the aggregate amount of the cash dividends declared or paid on the Common Stock of the Company in the 15-month period immediately preceding such distribution, then and in each such event, unless such distribution is part of or is made in connection with a transaction to which Section 11(a)(ii) or Section 13 hereof applies, the Exercise Price shall be reduced by an amount equal to the cash or the Fair Market Value of such distribution, as the case may be, per share of Common Stock of the Company. For purposes hereof, the Fair Market Value of any property distributed to the holders of shares of Common Stock of the Company shall be the Fair Market Value of such property as determined by an independent investment

44

banking firm experienced in the valuation of securities or the other property so distributed, as the case may be, selected in good faith by the Board of Directors of the Company, or, if no such investment banking firm is in the good faith judgment of the Board of Directors available to make such determination, in good faith by the Board of Directors of the Company, whose determination shall be final and binding on the Company, the Rights Agent and the holders of Rights.

Section 12. Certification of Adjusted Exercise Price or Number of Shares. Whenever an adjustment is made as provided in Section 11, 13 or 23(c), the Company shall (a) promptly prepare a certificate setting forth such adjustment, and a brief statement of the facts giving rise to such adjustment, (b) promptly file with the Rights Agent and with each transfer agent for the Preferred Stock a copy of such certificate and (c) mail a brief summary thereof to each holder of a Right Certificate in accordance with Section 25. Notwithstanding the foregoing sentence, the failure of the Company to make such certification or give such notice shall not affect the validity of or the force or effect of the requirement for such adjustment. Any adjustment to be made pursuant to Section 11, 13 or 23(c) of this Rights Agreement shall be effective as of the date of

45

the event giving rise to such adjustment. The Rights Agent shall be fully protected in relying on any such certificate and on any adjustment therein contained and shall not be deemed to have knowledge of any adjustment unless and until it shall have received such certificate.

or Earning Power.

(a) Except for any transaction approved by the Board of Directors (but only if at the time of such approval by the Board of Directors there are then in office not less than two Continuing Directors and such action is approved by a majority of the Continuing Directors then in office), in the event that, at any time on or after the Distribution Date, (x) the Company shall, directly or indirectly, consolidate with, or merge with and into, any other Person or Persons (other than an Exempt Person) and the Company shall not be the surviving or continuing corporation of such consolidation or merger, or (y) any Person or Persons (other than an Exempt Person) shall, directly or indirectly, consolidate with, or merge with and into, the Company, and the Company shall be the continuing or surviving corporation of such consolidation or merger and, in connection with such consolidation or merger, all or part of the outstanding shares of Common Stock shall be changed into or exchanged

46

for stock or other securities of any other Person (other than an Exempt Person) or of the Company or cash or any other property, or (z) the Company or one or more of its subsidiaries shall, directly or indirectly, sell or otherwise transfer to any other Person or Affiliate or Associate of such Person, in one or more transactions, or the Company or one or more of its Subsidiaries shall sell or otherwise transfer to any Persons in one or a series of related transactions, assets or earning power aggregating more than 50% of the assets or earning power of the Company and its Subsidiaries (taken as a whole), then, on the first occurrence of any such event, proper provision shall be made so that (i) each holder of record of a Right, except as provided in Section 7(e) hereof, shall thereafter have the right to receive, upon the exercise thereof and payment of the Exercise Price in accordance with the terms of this Rights Agreement, such number of shares of validly issued, fully paid, non-assessable and freely tradeable Common Stock of the Principal Party (as defined herein), not subject to any liens, encumbrances, rights of first refusal or other adverse claims, as shall, based on the Fair Market Value of the Common Stock of the Principal Party on the date of the consummation of such consolidation, merger, sale or transfer, equal twice the Exercise Price; (ii) such

47

Principal Party shall thereafter be liable for, and shall assume, by virtue of such consolidation, merger, sale or transfer, all the obligations and duties of the Company pursuant to this Rights Agreement; (iii) the term "Company" for all purposes of this Rights Agreement shall thereafter be deemed to refer to such Principal Party; (iv) such Principal Party shall take such steps (including, but not limited to, the reservation of a sufficient number of shares of its Common Stock in accordance with the provisions of Section 9 hereof applicable to the reservation of Preferred Stock) in connection with such consummation as may be necessary to assure that the provisions hereof shall thereafter be applicable, as nearly as reasonably may be, in relation to its shares of Common Stock thereafter deliverable upon the exercise of the Rights; provided, however, that, upon the subsequent occurrence of any merger, consolidation, sale of all or substantially all of the assets, recapitalization, reclassification of shares, reorganization or other extraordinary transaction in respect of such Principal party, each holder of a Right shall thereupon be entitled to receive, upon exercise of a Right and payment of the Exercise Price, such cash, shares, rights, warrants and other property which such holder would have been entitled to receive had it, at the time of such

transaction, owned the shares of Common Stock of the Principal Party purchasable upon the exercise of a Right, and such Principal Party shall take such steps (including, but not limited to, reservation of shares of stock) as may be necessary to permit the subsequent exercise of the Rights in accordance with the terms hereof for such cash, shares, rights, warrants and other property and (v) the provisions of section 11(a)(ii) hereof shall be of no effect following the occurrence of any event described in clause (x), (y) or (z) above of this Section 13(a).

(b) "Principal Party" shall mean

(i) in the case of any transaction described in (x) or (y) of the first sentence of Section 13(a) hereof: (A) the Person that is the issuer of the securities into which shares of Common Stock of the Company are changed or otherwise exchanged or converted in such merger or consolidation, or, if there is more than one such issuer, the issuer of the Common Stock of which has the greatest market value or (B) if no securities are so issued, (x) the Person that is the other party to the merger or consolidation and that survives such merger or consolidation, or, if there is more than one such Person, the Person the Common Stock of which has the greatest market value or (y) if the Person that is the other party to the

49

merger or consolidation does not survive the merger or consolidation, the Person that does survive the merger or consolidation (including the Company if it survives); and

(ii) in the case of any transaction described in (z) of the first sentence in Section 13(a), the Person that is the party receiving the greatest portion of the assets or earning power transferred pursuant to such transaction or transactions, or, if each Person that is a party to such transaction or transactions receives the same portion of the assets or earning power so transferred or if the Person receiving the greatest portion of the assets or earning power cannot be determined, whichever of such Persons as is the issuer of Common Stock having the greatest market value of shares outstanding; provided, however, that in any such case, if the Common Stock of such Person is not at such time and has not been continuously over the preceding 12-month period registered under Section 12 of the Exchange Act, and such Person is a direct or indirect Subsidiary of another Person the Common Stock of which is and has been so registered, the term "Principal Party" shall refer to such other Person, or if such Person is a Subsidiary, directly or indirectly, of more than one Person, the Common Stocks of all of which are and have been so registered, the term "Principal Party" shall refer

50

to whichever of such Persons is the issuer of the Common Stock having the greatest market value of shares outstanding.

(c) The Company shall not consummate any consolidation, merger or sale or transfer of assets or earning power referred to in Section 13(a) unless the Principal Party shall have a sufficient number of authorized shares of its Common Stock that have not been issued or reserved for issuance to permit exercise in full of all Rights in accordance with this Section 13 and unless prior thereto the Company and the Principal Party involved therein shall have executed and delivered to the Rights Agent an agreement confirming that the Principal Party shall, upon consummation of such consolidation, merger or sale or transfer of assets or earning power, assume this Rights Agreement in accordance with Section 13(a) hereof and that all rights of first refusal or preemptive rights in respect of the issuance of shares of Common Stock of the Principal Party upon exercise of outstanding Rights have been waived and that such transaction shall not result in a default by the Principal Party under this Rights Agreement, and further providing that, as soon as practicable after the date of any consolidation, merger or sale or transfer of assets or

51

earning power referred to in Section 13(a) hereof, the Principal Party will:

(i) prepare and file a registration statement under the Act with respect to the Rights and the securities purchasable upon exercise of the Rights on an appropriate form, use its best efforts to cause such registration statement to become effective as soon as practicable after such filing and use its best efforts to cause such registration statement to remain effective (with a prospectus at all times meeting the requirements of the Act) until the date of expiration of the Rights, and similarly comply with applicable state securities laws;

(ii) use its best efforts to list (or continue the listing of) the Rights and the securities purchasable upon exercise of the Rights on a national securities exchange or to meet the eligibility requirements for quotation on NASDAQ; and

(iii) deliver to holders of the Rights historical financial statements for the Principal Party which comply in all respects with the requirements for registration on Form 10 (or any

52

successor form) under the Exchange Act. In the event that any of the transactions described in Section 13(a) hereof shall occur at any time after the occurrence of a transaction described in Section 11(a)(ii) hereof, the Rights which have not theretofore been exercised shall, subject to the provisions of Section 7(e) hereof, thereafter be exercisable in the manner described in Section 13(a) shall, subject to the provisions of Section 7(e) hereafter be exercisable in the manner described in Section 13(a).

(d) In case the Principal Party which is to be a party to a transaction referred to in this Section 13 has provision in any of its authorized securities or in its Certificate of Incorporation or By-laws or other instrument governing its corporate affairs, which provision would have the effect of (i) causing such Principal Party to issue, in connection with, or as a consequence of, the consummation of a transaction referred to in this Section 13, shares of Common Stock of such Principal Party at less than the then Fair Market Value per share (determined pursuant to Section 11(b) hereof) or securities exercisable for, or convertible into, Common Stock of such Principal Party at less than such then Fair Market Value (other than to holders of Rights

53

pursuant to this Section 13 or (ii) providing for any special tax or similar payment in connection with the issuance to any holder of a Right of Common Stock of such Principal Party pursuant to the provisions of this Section 13, then, in such event, the Company shall not consummate any such transaction unless prior thereto the Company and such Principal Party shall have executed and delivered to the Rights Agent a supplemental agreement providing that the provision in question of such Principal Party shall have been canceled, waived or amended, or that the authorized securities shall be redeemed, so that the applicable provision will have no effect in connection with, or as a consequence of, the consummation of the proposed

transaction.

Section 14. Fractional Rights and Fractional Shares. (a) The Company shall not be required to issue fractions of Rights or to distribute Right Certificates which evidence fractional Rights (i.e., Rights to acquire less than one one-hundredth of a share of Preferred Stock), unless such fractional Rights result from a transaction referred to in Section 11(a)(i) hereof. If the Company shall determine not to issue such fractional Rights, then, in lieu of such fractional Rights, there shall be paid to

54

the holders of record of the Right Certificates with regard to which such fractional Rights would otherwise be issuable, an amount in cash equal to the same fraction of the Fair Market Value of a whole Right.

(b) The Company shall not be required to issue fractions of shares of Preferred Stock (other than fractions which are integral multiples of one-hundredth of a share) upon exercise of the Rights or to distribute certificates which evidence fractional shares (other than fractions which are integral multiples of one-hundredth of a share). In lieu of issuing fractions of shares of Preferred Stock, the Company may, at its election, issue depositary receipts evidencing fractions of shares pursuant to an appropriate agreement between the Company and a depositary selected by it, provided that such agreement shall provide that the holders of such depositary receipts shall have all of the rights, privileges and preferences to which they would be entitled as owners of the Preferred Stock. With respect to fractional shares that are not integral multiples of one-hundredth of a share, if the Company does not issue such fractional shares or depositary receipts in lieu thereof, there shall be paid to the holders of record of Right Certificates at the time such Right Certificates are exercised as herein provided an amount in cash equal to the

55

same fraction of the Fair Market Value of a share of Preferred Stock.

(c) The holder of a Right by the acceptance of a Right expressly waives his right to receive any fractional Right or any fractional shares of Preferred Stock (other than fractions which are integral multiples of one one-hundredth of a share) upon exercise of a Right.

Section 15. Rights of Action. All rights of action in respect of this Rights Agreement, except the rights of action given to the Rights Agent in Section 18 hereof, are vested in the respective registered holders of the Right Certificates (and, prior to the Distribution Date, the holders of record of the Common Stock); and any holder of record of any Right Certificate (or, prior to the Distribution Date, of the Common Stock), without the consent of the Rights Agent or of the holder of any other Right Certificate (or, prior to the Distribution Date, of the Common Stock), may, in his own behalf and for his own benefit, enforce, and may institute and maintain any suit, action or proceeding against the Company to enforce, or otherwise act in respect of, his right to exercise the Rights evidenced by such Right Certificate in the manner provided in such Right Certificate and in this Rights Agreement. Without limiting the foregoing or any remedies

56

available to the holders of Rights, it is specifically acknowledged that the holders of Rights would not have an adequate remedy at law for any breach of this Rights Agreement and will be entitled to specific performance of the obligations under, and injunctive relief against actual or threatened violations of, the obligations of any Person subject to this Rights Agreement. Section 16. Agreement of Right Holders. Each holder of a Right, by accepting the same, consents and agrees with the Company and the Rights Agent and with every other holder of a Right that:

(a) prior to the Distribution Date, the Rights shall be evidenced by the certificates for Common Stock registered in the name of the holders of Common Stock (together, as applicable, with the Summary of Rights), which certificates for Common Stock shall also constitute certificates for Rights, and not by separate Right Certificates, and each Right shall be transferable only simultaneously and together with the transfer of shares of Common Stock;

(b) after the Distribution Date, the Right Certificates are transferable only on the registry books of the Rights Agent if surrendered at the office of the Rights Agent designated for such purpose, duly

57

endorsed or accompanied by a proper instrument of transfer; and

(c) the Company and the Rights Agent may deem and treat the person in whose name the Right Certificate (or, prior to the Distribution Date, the associated Common Stock certificate) is registered as the absolute owner thereof and of the Rights evidenced thereby (notwithstanding any notations of ownership or writing on the Right Certificates or the associated Common Stock certificate made by anyone other than the Company or the Rights Agent) for all purposes whatsoever, and neither the Company nor the Rights Agent shall be affected by any notice to the contrary.

Section 17. Right Certificate Holder Not Deemed a Stockholder. No holder, as such, of any Right Certificate shall be entitled to vote, receive dividends or be deemed for any purpose the holder of Preferred Stock or any other securities which may at any time be issuable on the exercise of the Rights represented thereby, nor shall anything contained herein or in any Right Certificate be construed to confer upon the holder of any Right Certificate, as such, any of the rights of a stockholder of the Company or any right to vote for the election of directors or upon any matter submitted to stockholders at any meeting thereof

58

(except as provided in Section 7(f) hereof), or to give or withhold consent to any corporate action (except as provided in Section 7(f) hereof), or to receive notice of meetings or other actions affecting stockholders (except as provided in Section 24 hereof), or to receive dividends or subscription rights, or otherwise, until the Right or Rights evidenced by such Right Certificate shall have been exercised in accordance with the provisions hereof.

Section 18. Concerning the Rights Agent.

(a) The Company agrees to pay to the Rights Agent reasonable compensation for all services rendered by it hereunder and, from time to time, on demand of the rights Agent, its reasonable expenses and counsel fees and other disbursements incurred in the administration and execution of this Rights Agreement and the exercise and performance of its duties hereunder. The Company also agrees to indemnify the Rights Agent for, and to hold it harmless against, any loss, liability, or expense, incurred without gross negligence, bad faith or willful misconduct on the part of the Rights Agent, for anything done or omitted to be done by the Rights Agent in connection with the acceptance and administration of this Rights Agreement, including the cost and expenses of defending against any claim of liability relating to the Rights or this Rights Agreement. (b) The Rights Agent shall be protected against, and shall incur no liability for or in respect of, any action taken, suffered or omitted by it in connection with its administration of this Rights Agreement in reliance upon any Right Certificate or certificate for Preferred Stock or for other securities of the Company, instrument of assignment or transfer, power of attorney, endorsement, affidavit, letter, notice, direction, consent, certificate, statement or other paper or document believed by it to be genuine and to be signed, executed and, where necessary, verified or acknowledged, by the proper person or persons.

Section 19. Merger or Consolidation of, or Change in Name of, the Rights Agent.

(a) Any corporation into which the Rights Agent or any successor Rights Agent may be merged or with which it may be consolidated, or any corporation resulting from any merger or consolidation to which the Rights Agent or any successor Rights Agent shall be a party, or any corporation succeeding to the corporate trust or stock transfer business of the Rights Agent or any successor Rights Agent, shall be the successor to the Rights Agent under this Rights Agreement without the execution or filing of any paper or any further act on the part of any of the parties hereto, provided

60

that such corporation would be eligible for appointment as a successor Rights Agent under the provisions of Section 21 hereof. In case at the time such successor Rights Agent shall succeed to the agency created by this Rights Agreement any of the Rights Certificates shall have been countersigned but not delivered, any such successor Rights Agent may adopt the countersignature of the predecessor Rights Agent and deliver such Right Certificates so countersigned; and in case at that time any of the Right Certificates shall not have been countersigned, any successor Rights Agent may countersign such Right Certificates either in the name of the predecessor Rights Agent or in the name of the successor Rights Agent; and in all such cases such Right Certificates and in this Rights Agreement.

(b) In case at any time the name of the Rights Agent shall be changed and at such time any of the Right Certificates shall have been countersigned but not delivered, the Rights Agent may adopt the countersignature under its prior name and deliver Right Certificates so countersigned; in case at that time any of the Right Certificates shall not have been countersigned, the Rights Agent may countersign such Right Certificates either in its prior name or in its changed name; in all such cases such

61

Right Certificates shall have the full force provided in the Right Certificates and in this Rights Agreement.

Section 20. Duties of Rights Agent. The Rights Agent undertakes the duties and obligations imposed by this Rights Agreement upon the following terms and conditions, by all of which the Company and the holders of Right Certificates by their acceptance thereof shall be bound:

(a) The Rights Agent may consult with legal counsel (who may be legal counsel for the Company), and the opinion of such counsel shall be full and complete authorization and protection to the Rights Agent as to any action taken or omitted by it in good faith and in accordance with such opinion.

59

(b) Whenever in the performance of its duties under this Rights Agreement the Rights Agent shall deem it necessary or desirable that any fact or matter be proved or established by the Company prior to taking or suffering any action hereunder, such fact or matter (unless other evidence in respect thereof be herein specifically prescribed) may be deemed to be conclusively proved and established by a certificate signed by the Chairman of the Board, the President or any Vice President and by the Treasurer or the Secretary of the Company and delivered to the Rights Agent. Any such certificate shall be full authorization to the

62

Rights Agent for any action taken or suffered in good faith by it under the provisions of this Rights Agreement in reliance upon such certificate.

(c) The Rights Agent shall be liable hereunder only for its own gross negligence, bad faith or willful misconduct.

(d) The Rights Agent shall not be liable for or by reason of any of the statements of fact or recitals contained in this Rights Agreement or in the Right Certificates (except its countersignature thereof) or be required to verify the same, but all such statements and recitals are and shall be deemed to have been made by the Company only.

(e) The Rights Agent shall not be under any responsibility in respect of the validity of this Rights Agreement or the execution and delivery hereof (except the due execution hereof by the Rights Agent) or in respect of the validity or execution of any Right Certificate (except its countersignature thereof); nor shall it be responsible for any breach by the Company of any covenant or condition contained in this Rights Agreement or in any Right Certificate; nor shall it be responsible for any adjustment required under the provisions of Section 11 or 13 hereof or responsible for the manner, method or amount of any such

63

adjustment or the ascertaining of the existence of facts that would require any such adjustment (except with respect to the exercise of Rights evidenced by Right Certificates after receipt of a certificate describing any such adjustment); nor shall it by any act hereunder be deemed to make any representation or warranty as to the authorization or reservation of any shares of Preferred Stock to be issued pursuant to this Rights Agreement or any Right Certificate or as to whether any shares of Preferred Stock will, when issued, be validly authorized and issued, fully paid and nonassessable.

(f) The Company agrees that it will perform, execute, acknowledge and deliver or cause to be performed, executed, acknowledged and delivered all such further and other acts, instruments and assurances as may reasonably be required by the Rights Agent for the carrying out or performing by the Rights Agent of the provisions of the Rights Agreement.

(g) The Rights Agent is hereby authorized and directed to accept instructions with respect to the performance of its duties hereunder from the Chairman of the Board, the President or any Vice President or the Secretary or the Treasurer of the Company, and to apply to such officers for advice or instructions in connection with its

64

duties, and it shall not be liable for any action taken or suffered to be taken by it in good faith in accordance with instructions of any such officer.

(h) The Rights Agent and any shareholder, director, officer or employee of the Rights Agent may buy, sell or deal in any of the Rights or other securities of the Company or become pecuniarily interested in any transaction in which the Company may be interested, or contract with or lend money to the Company or otherwise act as fully and freely as though it were not the Rights Agent under this Rights Agreement. Nothing herein shall preclude the Rights Agent from acting in any other capacity for the Company or for any other legal entity.

(i) The Rights Agent may execute and exercise any of the rights or powers hereby vested in it or perform any duty hereunder either itself or by or through its attorneys or agents, and the Rights Agent shall not be answerable or accountable for any act, default, neglect or misconduct of any such attorneys or agents or for any loss to the Company resulting from any such act, default, neglect or misconduct, provided reasonable care was exercised in the selection and continued employment thereof.

Section 21. Change of Rights Agent. The Rights Agent or any successor Rights Agent may resign and be

65

discharged from its duties under this Rights Agreement upon 30 days' notice in writing mailed to the Company and to each transfer agent of the Common Stock and the Preferred Stock by registered or certified mail. The Company may remove the Rights Agent or any successor Rights Agent (with or without cause) upon 30 days' notice in writing, mailed to the Rights Agent or successor Rights Agent, as the case may be, and to each transfer agent of the Common Stock and the Preferred Stock by registered or certified mail. If the Rights Agent shall resign or be removed or shall otherwise become incapable of acting, the Company shall appoint a successor to the Rights Agent. Notwithstanding the foregoing provisions of this Section 21, in no event shall the resignation or removal of a Rights Agent be effective until a successor Rights Agent shall have been appointed and have accepted such appointment. If the Company shall fail to make such appointment within a period of 30 days after such removal or after it has been notified in writing of such resignation or incapacity by the resigning or incapacitated Rights Agent or by the holder of a Right Certificate (who shall, with such notice, submit his Right Certificate for inspection by the Company), then the incumbent Rights Agent or the holder of record of any Right Certificate may apply to any court of competent jurisdiction for the appointment of

66

a new Rights Agent. Any successor Rights Agent, whether appointed by the Company or by such a court, shall be (a) a corporation organized and doing business under the laws of the United States or of any state thereof, in good standing, which is authorized under such laws to exercise corporate trust or stock transfer powers and is subject to supervision or examination in the conduct of its corporate trust or stock transfer business by federal or state authorities and which has at the time of its appointment as Rights Agent a combined capital and surplus of at least \$5,000,000 or (b) an Affiliate controlled by a corporation described in clause (a) of this sentence. After appointment, the successor Rights Agent shall be vested with the same powers, rights, duties and responsibilities as if it had been originally named as Rights Agent without further act or deed, but the predecessor Rights Agent shall deliver and transfer to the successor Rights Agent any property at the time held by it hereunder, and execute and deliver any further assurance, conveyance, act or deed necessary for the purpose. Not later than the effective date of any such appointment, the Company shall file notice thereof in writing with the predecessor Rights Agent and each transfer agent of the Common Stock and Preferred Stock, and mail a notice thereof in writing to the registered holders of the Right

67

Certificates. Failure to give any notice provided for in this Section 21, however, or any defect therein, shall not affect the legality or validity

of the resignation or removal of the Rights Agent or the appointment of the successor Rights Agent, as the case may be. Notwithstanding the foregoing provisions, in the event of resignation, removal or incapacity of the Rights Agent, the Company shall have the authority to act as the Rights Agent until a successor Rights Agent shall have assumed the duties of the Rights Agent hereunder.

Section 22. Issuance of New Right Certificates. Notwithstanding any of the provisions of this Rights Agreement or of the Rights to the contrary, the Company may, at its option, issue new Right Certificates evidencing Rights in such form as may be approved by its Board of Directors to reflect any adjustment or change in the Exercise Price per share and the number or kind or class of shares of stock or other securities or property purchasable under the Right Certificates made in accordance with the provisions of this Rights Agreement.

Section 23. Redemption.

(a) The Company may, at its option, but only by the vote of a majority of the Board of Directors, redeem all but not less than all of the then outstanding Rights, at any time prior to the Close of Business on the earlier of (i) the tenth day following the Stock Acquisition Date (subject to extension by the Company as provided in Section 26 hereof) or (ii) the

68

Final Expiration Date, at a redemption price of \$.01 per Right, subject to adjustments as provided in subsection (c) below (the "Redemption Price"); provided, however, that from and after the time that any person shall become an Acquiring Person (other than pursuant to a Qualifying Tender Offer), the Company may redeem the Rights only if at the time of the action of the Board of Directors there are then in office not less than two Continuing Directors and such redemption is approved by a majority of the Continuing Directors then in office. Notwithstanding anything contained in this Agreement to the contrary, the Rights shall not be exercisable pursuant to Section 11(a)(ii) prior to the expiration of the Company's right of redemption hereunder.

(b) Without any further action and without any notice, the right to exercise the Rights will terminate at the effective time of the action of the Board of Directors ordering the redemption of the Rights and the only right thereafter of the holders of Rights shall be to receive the Redemption Price. Within 10 days after the effective time of the action of the Board of Directors ordering the

69

redemption of the Rights, the Company shall give notice of such redemption to the holders of the then outstanding Rights by mailing such notice to all such holders at their last addresses as they appear upon the registry books of the Rights Agent or, prior to the Distribution Date, on the registry books of the transfer agent for the Common Stock. Any notice which is mailed in the manner herein provided shall be deemed given, whether or not the holder receives the notice. Each notice of redemption will state the method by which the payment of the Redemption Price will be made. At the option of the Board of Directors, the Redemption Price may be paid in cash to each Rights holder or by the issuance of shares (and, at the Company's election pursuant to Section 14(b) hereof, cash or depositary receipts in lieu of fractions of shares other than fractions which are integral multiples of one one-hundredth (1/100) of a share) of Preferred Stock having a Fair Market Value equal to such cash payment.

(c) In the event the Company shall at any time after the date of this Rights Agreement (A) pay any dividend on Common Stock in shares of Common Stock, (B) subdivide or split the outstanding shares of Common Stock into a greater number of shares or (C) combine or consolidate the 70

shares or effect a reverse split of the outstanding shares of Common Stock, then, and in each such event, the Redemption Price shall be adjusted so that the Redemption Price after such event shall equal the Redemption Price immediately prior to such event multiplied by a fraction the numerator of which is the number of shares of Common Stock outstanding immediately after such event and the denominator of which is the number of shares of Common Stock outstanding immediately prior to such event; provided, however, that in each case such adjustment to the Redemption Price shall be made only if the amount of the Redemption Price shall be reduced or increased by \$.01 per Right.

Section 24. Notice of Proposed Actions. (a) In case the company, after the Distribution Date, shall propose (i) to effect any of the transactions referred to in Section 11(a)(i) or 11(g) or (ii) to offer to the holders of record of its Common Stock options, warrants, or other rights to subscribe for or to purchase shares of Common Stock (including any security convertible into or exchangeable for Common Stock) or shares of stock of any class or any other securities, options, warrants, convertible or exchangeable securities or other rights, or (iii) to effect any reclassification of its Preferred Stock or Common Stock or any recapitalization or reorganization of

71

the Company, or (iv) to effect any consolidation or merger with or into, or to effect any sale or other transfer (or to permit one or more of its Subsidiaries to effect any sale or other transfer), in one or more transactions, of more than 50% of the assets or earning power of the Company and its Subsidiaries (taken as a whole) to, any other Person or Persons, or (v) to effect the liquidation, dissolution or winding up of the Company, then, in each such case, the Company shall give to each holder of record of a Right Certificate, in accordance with Section 25, notice of such proposed action, which shall specify the record date for the purposes of such transaction referred to in Section 11(a)(i) or such dividend or distribution, or the date on which such reclassification, recapitalization, reorganization, consolidation, merger, sale or transfer of assets, liquidation, dissolution, or winding up is to take place and the record date for determining participation therein by the holders of record of Common Stock or Preferred Stock, if any such date is to be fixed, and such notice shall be so given in the case of any action covered by clause (i) or (ii) above at least 10 days prior to the record date for determining holders of record of the Preferred Stock for purposes of such action, and in the case of any such other action, at least 10 days prior to the date of the taking of

72

such proposed action or the date of participation therein by the holders of record of Common Stock or Preferred Stock, whichever shall be the earlier. The failure to give notice required by this Section 24 or any defect therein shall not affect the legality or validity of the action taken by the Company or the vote upon any such action.

(b) In case any of the transactions referred to in Section 11(a)(i), 11(g) or 13 of this Rights Agreement are proposed, then, in any such case, the Company shall give to each holder of Rights, in accordance with Section 25 hereof, notice of the proposal of such transaction at least 10 days prior to consummating such transaction, which notice shall specify the proposed event and the consequences of the event to holders of Rights under Section 11(a)(i), 11(g) or 13 hereof, as the case may be, and, upon consummating such transaction, shall similarly give notice thereof to each holder of rights.

Section 25. Notices. Notices or demand authorized by this Rights Agreement to be given or made by the Rights Agent or by the holder of record of any Right Certificate or Right to or on the Company shall be sufficiently given or made if sent by first-class mail, postage prepaid, addressed (until another address is filed in writing with the Rights Agent) as follows;

73

Minerals Technologies Inc. 235 East 42nd Street New York, New York 10017 Attention: Corporate Secretary

Subject to the provisions of Section 21, any notice or demand authorized by this Rights Agreement to be given or made by the Company or by the holder of record of any Right Certificate or Right to or on the Rights Agent shall be sufficiently given or made if sent by first-class mail, postage prepaid, addressed (until another address is filed in writing with the Company) as follows:

> Chemical Bank 450 West 33rd Street 15th Floor New York, New York 10001 Attention: Equity Administration

Notices or demands authorized by this Rights Agreement to be given or made by the Company or the Rights Agent to the holder of record of any Right Certificate or Right shall be sufficiently given or made if sent by first-class mail, postage prepaid, addressed to such holder at the address of such holder as shown on the registry books of the Company.

Section 26. Supplements and Amendments. For as long as the Rights are then redeemable and except as provided in the last sentence of this Section 26, the Company may in its sole and absolute discretion, and the Rights Agent shall if the Company so directs, supplement or amend any provision of this Agreement without the approval

74

of any holders of the Rights. At any time when the Rights are not then redeemable and except as provided in the last sentence of this Section 26, the Company may, and the Rights Agent shall if the Company so directs, supplement or amend this Rights Agreement without the approval of any holders of Rights Certificates (i) to cure any ambiguity, (ii) to correct or supplement any provision contained herein which may be defective or inconsistent with any other provisions herein or (iii) to change or supplement the provisions hereunder in any manner which the company may deem necessary or desirable, provided that no such supplement or amendment pursuant to this clause (iii) shall materially adversely affect the interest of the holders of Right Certificates. Upon the delivery of a certificate from an appropriate officer of the Company which states that the proposed supplement or amendment is in compliance with the terms of this Section 26, the Rights Agent shall execute such supplement or amendment. This Agreement may be amended or supplemented at any time with the approval of a majority of the registered holders of the Right Certificates (and, prior to the Distribution Date, the Common Stock). Notwithstanding anything contained in this Rights Agreement to the contrary, no supplement or amendment shall be made which changes the Redemption Price or the Final Expiration

Date and supplements or amendments may be made after the time that any

Person becomes an Acquiring Person (other than pursuant to a Qualifying Tender Offer) only if at the time of the action of the Board of Directors approving such supplement or amendment thee are then in office not less than two Continuing Directors and such supplement or amendment is approved by a majority of the Continuing Directors then in office.

Section 27. Successors. All of the covenants and provisions of this Rights Agreement by or for the benefit of the Company or the Rights Agent shall bind and inure to the benefit of their respective successors and assigns hereunder.

Section 28. Benefits of this Rights Agreement. Nothing in this Rights Agreement shall be construed to give to any person or corporation other than the Company, the Rights Agent and the registered holders of the Right Certificates (and, prior to the Distribution Date, the holders of Common Stock in their capacity as holders of the Rights) any legal or equitable right, remedy or claim under this Rights Agreement; but this Rights Agreement shall be for the sole and exclusive benefit of the Company, the Rights Agent and the holders of record of the Right Certificates (and, prior to the Distribution Date, the holders of Common Stock in their capacity as holders of the Rights).

76

Section 29. Delaware Contract. This Rights Agreement and each Right Certificate issued hereunder shall be deemed to be a contract made under the laws of the State of Delaware and for all purposes shall be governed by and construed and enforced in accordance with the laws of such state applicable to contracts to be made and performed entirely within such state; provided, however, that Sections 18, 19, 20 and 21 of this Rights Agreement shall be deemed to be a contract made under the laws of the State of new York and for all purposes shall be governed by and construed in accordance with the laws of such State applicable to contracts made and to be performed entirely within such State.

Section 30. Counterparts. This Rights Agreement may be executed in any number of counterparts and each of such counterparts shall for all purposes be deemed to be an original, and all such counterparts shall together constitute but one and the same instrument.

Section 31. Descriptive Headings. Descriptive headings of the several Sections of this Rights Agreement are inserted for convenience only and shall not control or affect the meaning or construction of any of the provisions hereof.

Section 32. Severability. If any term, provision, covenant or restriction of this Rights Agreement is held by a court of competent jurisdiction or other

77

authority to be invalid, void or unenforceable, the remainder of the terms, provisions, covenants and restrictions of this Rights Agreement shall remain in full force and effect and shall in no way be affected, impaired or invalidated.

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

MINERALS TECHNOLOGIES INC.

Attest:_____(SEAL)

By:_

By:_____ Name: Title:

Attest:_____

(SEAL)

78

SUBSIDIARIES OF THE COMPANY

```
Place of
Name of the Company
                                                       Incorporation
- -----
                                                         _____
Barretts Minerals Inc.
                                                       Delaware
Comsource Trading Ltd.
                                                       Delaware
Hi-Tech Specialty Minerals Company Limited
                                                       Thailand
Huzhou Minteq Refractory Company Ltd.
                                                      China
Minerals Technologies Europe N.V.
                                                      Belaium
Minerals Technologies Holdings Ltd.
                                                      United Kingdom
Minerals Technologies South Africa
  (Proprietary) Ltd.
                                                      South Africa
Mintech Canada Inc.
                                                       Canada
Mintech Do Brasil Comercio Ltda.
                                                       Brazil
Mintech Japan K.K.
                                                       Japan
Minteq Australia Pty. Ltd.
                                                      Australia
Minteg Europe Limited
                                                      Ireland
Minteg International GmbH
                                                      Germanv
Minteg International Inc.
                                                      Delaware
Minteg Italiana S.p.A.
                                                       Italy
Minteq Korea Inc.
                                                      Korea
Minteg Magnesite Limited
                                                       Ireland
Minteq U.K. Ltd.
                                                       United Kingdom
MTX Finance Inc.
                                                       Delaware
MTX Finance Ireland
                                                       Ireland
PT Sinar Mas Specialty Minerals
                                                       Indonesia
Specialty Minerals Do Brasil - Comercio
 e Industria Ltda.
                                                      Brazil
Specialty Minerals FMT K.K.
                                                       Japan
Specialty Minerals France S.A.R.L.
                                                      France
Specialty Minerals Inc.
                                                      Delaware
Specialty Minerals Inc.
Specialty Minerals Inc. Poland Sp. Z o.o.
Specialty Minerals International Inc.
                                                      Poland
                                                      Delaware
                                                     Israel
Mauritius
Michigan
Specialty Minerals Israel Limited
Specialty Minerals (Mauritius) Private Ltd.
Specialty Minerals (Michigan) Inc.
Specialty Minerals Nordic Oy Ab
                                                      Finland
Specialty Minerals Philippines Inc.
                                                      Philippines
Specialty Minerals (Portugal) -
                                                      Portugal
 Especialidades Minerais, S.A.
Specialty Minerals, S.A. de C.V.MexicoSpecialty Minerals Slovakia, Spol. S R. O.SlovakiaSpecialty Minerals South Africa (Pty.) Ltd.South AfricaSpecialty Minerals (Thailand) Limited
Specialty Minerals South Africa (Pty.) Ltd.
Specialty Minerals (Thailand) Limited
specialty Minerals U.K. Ltd.United KingdomSpecialty Pigments (India) Private LimitedIndiaTecnologias Minerales De Mexico, S.A. de C.V.Mexico
```

EXHIBIT 23.1

REPORT AND CONSENT OF INDEPENDENT AUDITORS

The Board of Directors and Shareholders Minerals Technologies Inc.:

The audits referred to in our report dated January 22, 1998, included the related financial statement schedule for each of the years in the three-year period ended December 31, 1997, as listed in Item 14 of this Annual Report on Form 10-K. This financial statement schedule is the responsibility of the Company's management. Our responsibility is to express an opinion on this financial statement schedule based on our audits. In our opinion, such financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

We consent to the use of our reports included herein and incorporated by reference in the Registration Statements on Form S-8 (Nos. 33-59080, 33-65268 and 33-96558).

KPMG PEAT MARWICK LLP

New York, New York March 18, 1998

```
<ARTICLE> 5
<LEGEND>
This schedule contains summary financial information extracted from the
condensed consolidated financial statements of Minerals Technologies Inc., and
is qualified in its entirety by reference to such condensed consolidated
financial statements.
</LEGEND>
<MULTIPLIER> 1,000
```

<period-type></period-type>	12-MOS	
<pre><fiscal-year-end></fiscal-year-end></pre>	12-M05	DEC-31-1997
		DEC-31-1997 DEC-31-1997
<period-end></period-end>		
<cash></cash>		41,525
<securities></securities>		0
<receivables></receivables>		111,412
<allowances></allowances>		3,266
<inventory></inventory>		61,166
<current-assets></current-assets>		226,582
<pp&e></pp&e>		850,269
<depreciation></depreciation>		349,538
<total-assets></total-assets>		741,407
<current-liabilities></current-liabilities>		94,218
<bonds></bonds>		101,571
<preferred-mandatory></preferred-mandatory>		0
<pre><preferred></preferred></pre>		0
<common></common>		2,537
<other-se></other-se>		551 , 377
<total-liability-and-equity></total-liability-and-equity>		741,407
<sales></sales>		602,335
<total-revenues></total-revenues>		602 , 335
<cgs></cgs>		424,612
<total-costs></total-costs>		424,612
<other-expenses></other-expenses>		20,391
<loss-provision></loss-provision>		0
<interest-expense></interest-expense>		7,208
<income-pretax></income-pretax>		72,188
<income-tax></income-tax>		23,104
<income-continuing></income-continuing>		50,312
<pre><discontinued></discontinued></pre>		, 0
<extraordinary></extraordinary>		0
<changes></changes>		0
<net-income></net-income>		50,312
<eps-primary></eps-primary>		2.23
<eps-diluted></eps-diluted>		2.18
		2.10