SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D. C. 20549
/ X / ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 1993
OR
/ / TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934
For the transition period from to
Commission file number 0-7154
------
QUAKER CHEMICAL CORPORATION
(Exact name of Registrant as specified in its charter)

| A Pennsylvania Corporation | No. 23-0993790 |
| :--- | :--- |
| ------------------------------------------ | (State or other jurisdiction of |
| incorporation or organization) | (I.R.S.Employer |
| Identification No.) |  |

Elm and Lee Streets, Conshohocken, Pennsylvania 19428
(Address of principal executive offices) (Zip Code)
Registrant's telephone number, including area code 610-832-4000
Securities registered pursuant to Section $12(b)$ of the Act:

# NAME OF EACH EXCHANGE ON WHICH REGISTERED 

## TITLE OF EACH CLASS

None
Securities registered pursuant to Section 12(g) of the Act:

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                                    COMMON STOCK, $1.00 PAR VALUE
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Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months and (2) has been subject to such filing requirements for the past 90 days. Yes / X / No / /

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

State the aggregate market value of the voting stock held by non-affiliates of the Registrant. (The aggregate market value is computed by reference to the last reported sale price on the Nasdaq National Market on March 18, 1994): \$166,425, 298.

Indicate the number of shares outstanding of each of the Registrant's classes of common stock, as of the latest practicable date: 9,255,506 shares of Common Stock, \$1.00 Par Value, as of March 18, 1994.

## DOCUMENTS INCORPORATED BY REFERENCE

(1) Portions of the Registrant's Annual Report to Shareholders for the year ended December 31, 1993 are incorporated into Parts I and II.
(2) Portions of the Registrant's definitive Proxy Statement dated March 31, 1994, in connection with the Annual Meeting of Shareholders to be held on May 4, 1994, are incorporated into Part III.

The exhibit index is located on page 18.

As used in this Report, the term "Quaker," unless the context otherwise requires, means Quaker Chemical Corporation, its subsidiaries, and associated companies

ITEM 1. BUSINESS.

General Description

Quaker develops, produces, and markets a broad range of formulated chemical specialty products for various heavy industrial, institutional, and manufacturing applications. Quaker's principal products include: (i) rolling lubricants (used by manufacturers of steel in the hot and cold rolling of steel); (ii) corrosion preventives (used by steel and metalworking customers to protect metal during manufacture, storage, and shipment); (iii) metal finishing compounds (used to prepare metal surfaces for special treatments such as galvanizing and tin plating and to prepare metal for further processing); (iv) machining and grinding compounds (used by metalworking customers in cutting, shaping, and grinding metal parts which require special treatment to enable them to tolerate the manufacturing process); (v) forming compounds (used to facilitate the drawing and extrusion of metal products); (vi) paper production products (used as defoamers, release agents, softeners, debonders, and dispersants); (vii) hydraulic fluids (used by steel, metalworking, and other customers to operate hydraulically activated equipment); (viii) products for the removal of hydrogen sulfide in various industrial applications. During 1993, Quaker developed programs to provide recycling and chemical management services.

In 1994, Quaker entered into an agreement for the creation of a joint venture which is expected to enhance the Total Fluid Management (TFM) service capabilities of Quaker. An initial cash investment of approximately $\$ 3,000,000$ has been made with additional investments expected based on the growth of the venture.

Other specialty products and services are produced and marketed by Quaker's domestic subsidiaries. AC Products, Inc., Quaker Construction Products, Inc., QSC Products, Ltd., and Multi-Chemical Products, Inc. manufacture and/or sell sealants and coatings for aerospace, construction, and industrial use. Selby, Battersby \& Co. manufactures and sells trowel-applied flooring systems which derive their specialty characteristics from the different resins used and the methods of their application.

During the third quarter 1992, as part of a plan to exit from the petroleum production chemicals market, Quaker entered into an agreement to sell certain of its petroleum production chemical operations assets, the principal component of which is technology used in the removal of hydrogen sulfide and organic sulfides from liquid and gaseous streams, embodied in the SULFA-SCRUB(R) product series. This transaction was consummated in 1993. Quaker acquired in May 1993 a French producer of metalworking fluids at a price of approximately French Francs 53,000,000 (approximately US $\$ 10,700,000)$, to reinforce Quaker's existing metalworking operations in Europe.

Substantially all of Quaker's sales worldwide are made directly through its own sales forces. Quaker salesmen visit the plants of customers regularly and through training and experience identify production needs which can be resolved or alleviated either by adapting Quaker's existing products or by new formulations developed in Quaker's laboratories. Salesmen may call upon Quaker's regional managers, product managers, and members of its laboratory staff for assistance in obtaining and setting up product tests and evaluating the results of such tests. In 1993, certain products were also sold in Canada, Korea, India, and Argentina by exclusive licensees under long-term royalty agreements.

Generally, separate manufacturing facilities of a single customer are served by different salesmen.

Competition
----------

The chemical specialty industry is composed of a number of companies of similar size as well as companies larger and smaller than Quaker. Quaker cannot readily determine its precise position in the industry. Many competitors are in fewer and more specialized product classifications or provide different levels of technical services in terms of specific formulations for individual customers. Competition in the industry is based primarily on the ability to provide products which meet the needs of the customer and render technical services and laboratory assistance to customers and, to a lesser extent, on price.

Major Customers

During 1993, Quaker's five largest customers (each composed of multiple subsidiaries or divisions with semi-autonomous purchasing authority) accounted for approximately $16 \%$ of its consolidated net sales with the largest of these customers accounting for approximately $4 \%$ of consolidated net sales. No one subsidiary or division of these five customers accounted for more than $3 \%$ of consolidated net sales. During the same period, approximately $46 \%$ of consolidated net sales were made to customers engaged in the manufacture of cold-rolled steel.

Raw Materials

Quaker uses over 500 raw materials, including mineral oils, fats and fat derivatives, ethylene derivatives, solvents, surface active agents, chlorinated paraffinic compounds, and a wide variety of organic and inorganic compounds. In 1993, only one raw material accounted for as much as $11 \%$ of the total cost of Quaker's raw material purchases. Quaker has multiple sources of supply for most materials, and Management believes that the failure of any single supplier would not have a material adverse effect upon its business.

Quaker has a limited number of patents and patent applications, including patents issued, applied for, or acquired in the United States and in various foreign countries, some of which may prove to be material to its business. Principal reliance is placed upon Quaker's proprietary formulae and the application of its skills and experience to meet customer needs. Quaker's products are identified by trademarks which are registered throughout its marketing area. Quaker makes little use of advertising but relies heavily upon its reputation in the markets which it serves.

Research and Development -- Laboratories

Quaker's research and development laboratories support its sales organization. Accordingly, the activities of Quaker's laboratory staff are directed primarily toward applied research and development since the nature of Quaker's business requires continuing modification and improvement of formulations to provide chemical specialties to satisfy customer requirements.

Quaker maintains quality control laboratory facilities in each of its manufacturing locations. In addition, Quaker maintains in Conshohocken, Pennsylvania, laboratory facilities which are devoted primarily to applied research and development.

Most of Quaker's affiliates also have research and development facilities. Although not as complete as the Conshohocken laboratories, these facilities are generally sufficient for the requirements of the customers being served. If problems are encountered which cannot be resolved by local research and development facilities, such problems are referred to the Conshohocken laboratory staff.

Approximately 195 persons, of whom 98 have B.S. degrees and 44 have B.S. and advanced degrees, are employed in Quaker's laboratories.

## Number of Employees

- --------------------

On December 31, 1993, Quaker had 1,006 full-time employees, of whom 369 were employed by the parent company, 548 were employed by its international subsidiaries and associates, and 89 were employed by all domestic subsidiaries.

Product Classification

Incorporated by reference is the information concerning product classification by markets served appearing under the caption "Supplemental Financial Information" on page 27 of the Registrant's

1993 Annual Report to Shareholders, the incorporated portions of which are included as Exhibit 13 to this Report.

International Activities

Incorporated by reference is the information concerning international activities appearing in Note 9 to Notes to Consolidated Financial Statements and under the caption "General" of the Operations section of Management's Discussion and Analysis of Financial Condition and Results of Operations which appear on pages 30 and 31, respectively, of the Registrant's 1993 Annual Report to Shareholders, the incorporated portions of which are included as Exhibit 13 to this Report.

## ITEM 2. PROPERTIES.

Quaker's principal facilities in the United States are located in Conshohocken, Pennsylvania and Detroit, Michigan. Quaker also owns a non-operating facility in Pomona, California. Quaker's international subsidiaries own facilities in Woodchester, England; Uithoorn, The Netherlands; Verona, Italy; Villeneuve, France; Santa Perpetua de Mogoda, Spain; and Seven Hills, N.S.W., Australia. Quaker Construction Products, Inc. has a manufacturing facility in Sapulpa, Oklahoma that also serves QSC Products, Ltd. and Selby, Battersby \& Co. All of these facilities are owned mortgage free. Financing for the Corporate Technical Center in Conshohocken, Pennsylvania was arranged through the use of industrial revenue and development bonds with an outstanding balance at December 31, 1993 of \$5, 000, 000 .

Quaker's aforementioned facilities consist of various manufacturing, administrative, warehouse, and laboratory buildings. Substantially all of the buildings are of fire-resistant construction and are equipped with sprinkler systems. All facilities are primarily of masonry and/or steel construction and are adequate and suitable for Quaker's present operations. The Company has a program to identify needed capital improvements which will be implemented as Management considers necessary or desirable. Most locations have various numbers of raw material storage tanks ranging from six to 63 having a capacity from 500 to 80,000 gallons each and processing or manufacturing vessels ranging in capacity from 50 to 12,000 gallons each.

In order to facilitate compliance with applicable federal, state, and local statutes and regulations relating to occupational health and safety and protection of the environment, the Company has implemented a program of site assessment, currently directed primarily to facilities in the United States for the purpose of identifying capital expenditures or other actions that may be necessary to comply with such requirements. The program includes periodic inspections of each facility in the United States by Quaker and/or independent environmental experts, as well as ongoing inspections by on-site personnel. Such inspections are addressed
to operational matters, record keeping, reporting requirements, and capital improvements. In 1993, capital expenditures directed solely or primarily to regulatory compliance amounted to approximately \$1, 000, 000 .

Quaker's executive offices are located in a four-story building containing a total of approximately 47,000 square feet. A corporate technical center containing approximately 28,700 square feet houses the laboratory facility. Both of these facilities are adjacent to Quaker's manufacturing facility in Conshohocken.

Multi-Chemical Products, Inc. has a ten-year lease on its facility in Fontana, California which expires in 2001. AC Products, Inc. has a ten-year lease on its facility in Placentia, California that expires in 1997.

Quaker's Mexican associate (40\% owned) owns a plant in Monterrey, Mexico. ITEM 3. LEGAL PROCEEDINGS.

The Company is a party to proceedings, cases, and requests for information from, and negotiations with, various claimants and federal and state agencies relating to various matters including environmental matters, none of which are expected to result in monetary sanctions in any amount or in awards that would have a material adverse effect on the Company's financial condition. Reference is made to Note 11 to Notes to Consolidated Financial Statements which appears on page 26 in the Registrant's 1993 Annual Report to Shareholders, the incorporated portions of which are included as Exhibit 13 to this report, for information concerning pending asbestos-related cases against a subsidiary.

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

No matters were submitted to a vote of security holders during the last quarter of the period covered by this Report.

| NAME | OFFICE (SINCE) | AGE | YEAR FIRST <br> ELECTED AS <br> AN EXECUTIVE <br> OFFICER |
| :---: | :---: | :---: | :---: |
| Peter A. Benoliel | Chairman of the Board (1980) | 62 | 1963 |
| S. W. W. Lubsen | President (1988) and Chief Executive Officer (1993) | 50 | 1988 |
| John E. Burrows, Jr. | Vice President-North America (1992) | 47 | 1990 |
| Jose Luiz Bregolato | Vice President-South America (1993) | 48 | 1993 |
| Ira R. Dolich | Vice President-Quality and Training (1990) (Retired December 31, 1993) | 58 | 1981 |
| William G. Hamilton | Corporate Treasurer (1985) <br> (Retired December 31, 1993) | 57 | 1985 |
| Marcus C. J. Meijer | Vice President-Europe (1990) | 46 | 1990 |
| Clifford E. Montgomery | Vice President-Human Resources (1990) | 46 | 1990 |
| Karl H. Spaeth | Vice President (1981) and Corporate Secretary (1972) | 65 | 1972 |
| Joseph F. Spanier | Vice President (1990), Corporate Controller (1985), and Corporate Treasurer (1994) | 47 | 1985 |

All of the Executive Officers with the exception of Mr. Bregolato, Mr. Meijer, Mr. Burrows, and Mr. Montgomery have served as an officer of the Registrant for more than the past five years. Prior to being elected Chief Executive Officer of the Registrant, Mr. Lubsen served as Managing Director of Quaker Chemical B.V., a position to which he was appointed in 1984, and President and Chief Operating Officer to which he was elected in 1988. Prior to his election as an officer of the Registrant, Mr. Bregolato served as Financial Consultant and Administrative Director of Fabrica Carioca de Catalisadores, S.A. to which he was appointed in 1985. Prior to his election as an officer of the Registrant, Mr. Meijer served as Managing Director of Quaker Chemical B.V. to which he was appointed in 1988. Prior to that, he served as President of a Brazilian subsidiary and subsequently as Commercial Director, Chemical

Division of the Akzo N.V. group. Prior to his election as an officer of the Registrant, Mr. Burrows served as Division Manager, Marine Colloids Division of FMC Corporation, a position to which he was appointed in 1986. Prior to being elected Vice President-Human Resources, Mr. Montgomery served as Manager of Human Resources, General Electric's Worldwide Marketing and Product Management Organization, and, prior to that, he served as Director, Human Resources, GE Plastics Europe. Mr. Spanier was elected Treasurer effective January 1, 1994 on the retirement of Mr. Hamilton.

There is no family relationship between any of the Registrant's Executive Officers. Each Officer is elected for a term of one year.

PART II
ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS.

Incorporated by reference is the information appearing under the caption "Stock Market and Related Security Holder Matters" on page 28 of the Registrant's 1993 Annual Report to Shareholders, the incorporated portions of which are included as Exhibit 13 to this Report.

ITEM 6. SELECTED FINANCIAL DATA.

Incorporated by reference is the information appearing under the caption "Selected Financial Information" on page 29 of the Registrant's 1993 Annual Report to Shareholders, the incorporated portions of which are included as Exhibit 13 to this Report.

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

Incorporated by reference is the information appearing under the caption "Management's Discussion and Analysis of Financial Condition and Results of Operations" on pages 30 and 31 of the Registrant's 1993 Annual Report to Shareholders, the incorporated portions of which are included as Exhibit 13 to this Report.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.

Incorporated by reference is the information appearing on pages 14 through 27 of the Registrant's 1993 Annual Report to Shareholders, the incorporated portions of which are included as Exhibit 13 to 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.

Incorporated by reference is the information beginning immediately following the caption "Election of Directors" to, but not including, the caption "Executive Compensation" contained in the Registrant's definitive Proxy Statement to be filed no later than 120 days after the close of its fiscal year ended December 31, 1993 and the information appearing in Item 4(a) of this Report. Based on the Company's review of certain reports filed with the Securities and Exchange Commission pursuant to Section 16(a) of the Securities Exchange Act of 1934, as amended, and written representations of the Company's officers and directors, the Company believes that all of such reports were filed on a timely basis, except for one filing on Form 4 covering one transaction each for Mr. Benoliel and Mr. Delattre.

ITEM 11. EXECUTIVE COMPENSATION.

Incorporated by reference is the information beginning immediately following the caption "Executive Compensation" to, but not including, the caption "Compensation/Management Development Committee and Long-Term Performance Incentive Plan Committee Report on Executive Compensation" contained in the Registrant's definitive Proxy Statement to be filed no later than 120 days after the close of its fiscal year ended December 31, 1993.

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

Incorporated by reference is the information beginning immediately following the caption "Security Ownership of Certain Beneficial Owners and Management" to, but not including, the caption "Election of Directors" contained in the Registrant's definitive Proxy Statement to be filed no later than 120 days after the close of its fiscal year ended December 31, 1993.
13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS.

No information is required to be provided in response to this Item 13.
PART IV
ITEM 14. EXHIBITS, FINANCIAL STATEMENT SCHEDULES, AND REPORTS ON FORM 8-K.
(a) Exhibits and Financial Statement Schedules

1. FINANCIAL STATEMENTS

The following is a list of the Financial Statements which have been incorporated by reference from the Registrant's Annual Report to Shareholders for the fiscal year ended December 31, 1993, as set forth in Item 8:

Consolidated Statement of Operations
Consolidated Statement of Cash Flows

Consolidated Balance Sheet
Notes to Consolidated Financial Statements
Report of Independent Accountants
2. FINANCIAL STATEMENT SCHEDULES

The following is a list of the Financial Statement Schedules filed herewith, all of which should be read in conjunction with the financial statements listed in Item 14(a) 1, above:

Report of Independent Accountants on Financial Statement Schedules

Schedule V-Property, plant, and equipment
Schedule VI-Accumulated depreciation of property, plant, and equipment

Schedule VIII-Valuation and qualifying accounts
Schedule IX-Short-term borrowings
All other schedules are omitted because they are not applicable or the required information is shown in the financial statements or notes thereto.

Financial statements of $50 \%$ or less owned companies have been omitted because none of the companies meets the criteria requiring inclusion of such statements.
3. EXHIBITS (NUMBERED IN ACCORDANCE WITH ITEM 601 OF REGULATION S-K)

3(a)--Articles of Incorporation. Incorporated by reference to Exhibit 3(a) to Form 10-Q as filed by the Registrant for the Quarter ended March 31, 1987.

3(b)--By-Laws. Incorporated by reference to Exhibit 3(b) to Form $10-Q$ as filed by the Registrant for the Quarter ended March 31, 1987.
3(c)--Amendment to Section 3.13 of the By-Laws dated May 2, 1990 and Amendment to Section 8.1 of the By-Laws dated July 11, 1990. Incorporated by reference to Exhibit 3(c) as filed by Registrant with Form 10-K for the year 1990.
4 --Shareholder Rights Plan. Incorporated by reference to Form 8-K as filed by the Registrant, February 20, 1990.
10(a)--Long-Term Performance Incentive Plan as approved May 5, 1993.
10(b)--Employment agreement by and between the Registrant and Peter A. Benoliel, as amended July 1, 1989. Incorporated by reference to Exhibit 10(b) as filed by Registrant with Form 10-K for the year 1989.*

10(c)--Employment agreement by and between the Registrant and S. W. W. Lubsen. Incorporated by reference to Exhibit 10(c) as filed by Registrant with Form 10-K for the year 1989.*
10(d)--Restricted Stock and Cash Bonus Plan and Agreement by and between the Registrant and S. W. W. Lubsen. Incorporated by reference to Exhibit $10(d)$ as filed by Registrant with Form 10-K for the year 1989.*

10(e)--Employment agreement by and between Registrant and John E. Burrows, Jr. Incorporated by reference to Exhibit 10(h) as filed by Registrant with Form $10-\mathrm{K}$ for the year 1990.*
10(f)--Employment agreement by and between Registrant and Clifford E. Montgomery. Incorporated by reference to Exhibit 10(i) as filed by Registrant with Form 10-K for the year 1990.*
10(g)--Employment agreement by and between Registrant and Joseph F. Spanier. Incorporated by reference to Exhibit 10(g) as filed by Registrant with Form 10-K for the year 1992.*

10(h)--Documents constituting employment contract by and between Quaker Chemical Europe B.V. and M. C. J. Meijer.*
10(i)--Documents constituting retirement agreement by and between Registrant and Ira R. Dolich.*
13 --Portions of the 1993 Annual Report to Shareholders incorporated by reference.
21 --Subsidiaries and Affiliates of the Registrant.
23 --Consent of Independent Accountants.

* A management contract or compensatory plan or arrangement required to be filed as an exhibit to this report.
(b) Reports on Form 8-K.

No reports on Form 8-K were filed by the Registrant during the last quarter of the period covered by this Report.
(c) The exhibits required by Item 601 of Regulation S-K filed as part of this Report or incorporated herein by reference are listed in subparagraph (a)(3) of this Item 14.
(d) The financial statement schedules filed as part of this Report are listed in subparagraph (a)(2) of this Item 14.

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.

## QUAKER CHEMICAL CORPORATION

Registrant

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By: S. W. W. LUBSEN
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    S. W. W. Lubsen
    President and Chief Executive Officer
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PURSUANT TO THE REQUIREMENTS OF THE SECURITIES EXCHANGE ACT OF 1934, THIS REPORT HAS BEEN SIGNED BELOW BY THE FOLLOWING PERSONS ON BEHALF OF THE REGISTRANT AND IN THE CAPACITIES AND ON THE DATES INDICATED.

SIGNATURE

PETER A. BENOLIEL
Peter A. Benoliel,
Chairman of the Board

JOSEPH F. SPANIER

|  | Principal Financial | March 30, 1994 |
| :---: | :---: | :---: |
| Joseph F. Spanier, Vice | and Accounting Officer |  |
| President, Corporate |  |  |
| Controller, and Corporate |  |  |

SIGISMUNDUS W. W. LUBSEN
 President and Chief Executive Officer

## Joseph B. Anderson, Jr.

PATRICIA C. BARRON

Patricia C. Barron

WILLIAM L. BATCHELOR
William L. Batchelor

## Director

March 30, 1994

Lennox K. Black

EDWIN J. DELATTRE
Edwin J. Delattre

ROBERT P. HAUPTFUHRER
Robert P. Hauptfuhrer

FREDERICK HELDRING
Frederick Heldring

RONALD J. NAPLES
Ronald J. Naples

ALEX SATINSKY
Alex Satinsky
D. Robert Yarnall, Jr.

To the Shareholders and Board of Directors Quaker Chemical Corporation

Our audits of the consolidated financial statements referred to in our report dated February 18, 1994 appearing on page 26 of the 1993 Annual Report to Shareholders of Quaker Chemical Corporation (which report and financial statements are incorporated by reference in this Annual Report on Form 10-K) also included an examination of the Financial Statement Schedules listed in Item 14(a) of this Form 10-K. In our opinion, these Financial Statement Schedules present fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements.

PRICE WATERHOUSE

Thirty South Seventeenth Street Philadelphia, Pennsylvania 19103 February 18, 1994

## QUAKER CHEMICAL CORPORATION

SCHEDULE V -- PROPERTY, PLANT AND EQUIPMENT
YEARS ENDED DECEMBER 31, 1993, 1992 AND 1991

|  | BALANCE AT | ADDITIONS | RETIREMENTS | OTHER | BALANCE AT |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | BEGINNING | AT | OR | CHANGES, ADD | END OF |
| CLASSIFICATION | OF PERIOD | COST | SALES | (DEDUCT) (1) | PERIOD |

YEAR ENDED DECEMBER 31, 1993

| Land. | \$ 6,042,000 | \$ | 144,000 | \$ (61, 000) | \$ | 315, 000 | \$ | 6,440, 000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Buildings and improvements. | 32,873,000 |  | 2,234,000 | $(1,261,000)$ |  | 1,744,000 |  | 35,590,000 |
| Machinery and equipment... | 57,306,000 |  | 6,174,000 | $(1,295,000)$ |  | 881,000 |  | 63,066,000 |
| Construction in progress.. | 1,477,000 |  | 408, 000 |  |  | 95,000 |  | 1,980, 000 |
|  | \$97, 698, 000 | \$ | 8,960,000 | \$ $2,617,000$ ) | \$ | 3, 035, 000 |  | 07, 076, 000 |

YEAR ENDED DECEMBER 31, 1992

| Land | \$ 3,169,000 | \$ | 488, 000 |  |  |  | 2,385,000 | \$ | 6, 042,000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Buildings and |  |  |  |  |  |  |  |  |  |
| improvements. | 31,284, 000 |  | 355,000 | \$ | (6,000) |  | 1,240,000 |  | 32,873,000 |
| Machinery and equipment.. | 52,474, 000 |  | 6,257,000 |  | $(3,506,000)$ |  | 2,081,000 |  | 57,306,000 |
| Construction |  |  |  |  |  |  |  |  |  |
| in progress. | 2,077,000 |  | 126,000 |  |  |  | (726, 000 ) |  | 1,477,000 |
|  | \$89, 004, 000 | \$ | 7,226,000 |  | $(3,512,000)$ | \$ | 4,980,000 | \$ | 97,698,000 |

YEAR ENDED DECEMBER 31, 1991

| Land | \$ 3,152,000 |  |  | \$ | $(43,000)$ | \$ | 60,000 | \$ | 3,169,000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Buildings and |  |  |  |  |  |  |  |  |  |
| improvements. | 29,414,000 | \$ | 332,000 |  | $(659,000)$ |  | 2,197,000 |  | 31, 284, 000 |
| Machinery and |  |  |  |  |  |  |  |  |  |
| Construction |  |  |  |  |  |  |  |  |  |
| in progress. | 2,746,000 |  | 5,521,000 |  |  |  | $(6,190,000)$ |  | 2,077,000 |
|  | \$83, 697, 000 | \$ | 8,420,000 |  | 2,750,000) | \$ | $(363,000)$ | \$ | 89, 004, 000 |

(1) Represents primarily companies acquired and fluctuations resulting from the translation of foreign currencies in 1993 and 1992, and fluctuations resulting from the translation of foreign currencies in 1991.

QUAKER CHEMICAL CORPORATION
SCHEDULE VI -- ACCUMULATED DEPRECIATION
YEARS ENDED DECEMBER 31, 1993, 1992 AND 1991

| CLASSIFICATION | BALANCE AT BEGINNING OF PERIOD | $\begin{gathered} \text { ADDITIONS } \\ \text { AT } \\ \text { COST } \end{gathered}$ | RETIREMENTS OR SALES | OTHER <br> CHANGES, ADD (DEDUCT)(1) | BALANCE AT END OF PERIOD |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | YEAR ENDED DECEMBER 31, 1993 |  |  |  |  |
| Buildings and improvements. Machinery and equipment.... | $\$ 12,144,000$ | $\$ 1,203,000$ | $(560,000)$ | \$ (296, 000) | \$ 12,491,000 |
|  | 33,375, 000 | 5,342,000 | $(578,000)$ | $(105,000)$ |  |
|  | \$45, 519, 000 | \$ 6,545,000 | \$(1, 138, 000) | \$ (401, 000) | \$ 50, 525,000 |
|  | YEAR ENDED DECEMBER 31, 1992 |  |  |  |  |
| Buildings and improvements. Machinery and equipment. | \$11,105,000 | \$ 1,183,000 | \$ (6,000) | \$ $(138,000)$ | \$ 12,144,000 |
|  | 29,238,000 | 5,244,000 | $(1,864,000)$ | 757,000 | 33,375, 000 |
|  | \$40, 343, 000 | \$ 6,427,000 | \$(1, 870, 000) | \$ 619,000 | \$ 45,519, 000 |
|  | YEAR ENDED DECEMBER 31, 1991 |  |  |  |  |
| Buildings and improvements. Machinery and equipment.... | \$10,552,000 | \$ 1,012,000 | \$ (446, 000) | \$ (13,000) | \$ 11,105,000 |
|  | 26,829,000 | 4,176,000 | $(1,675,000)$ | $(92,000)$ | 29,238, 000 |
|  | \$37, 381, 000 | \$ 5,188, 000 | \$(2, 121, 000) | \$ (105, 000) | \$ 40, 343, 000 |

(1) Represents primarily companies acquired and fluctuations resulting from the translation of foreign currencies in 1993 and 1992, and fluctuations resulting from the translation of foreign currencies in 1991.

## QUAKER CHEMICAL CORPORATION AND SUBSIDIARIES

SCHEDULE VIII -- VALUATION AND QUALIFYING ACCOUNTS ALLOWANCE FOR DOUBTFUL ACCOUNTS

ADDITIONS

|  | BALANCE AT | CHARGED TO | CHARGED OR (CREDITED) |  | BALANCE AT |
| :---: | :---: | :---: | :---: | :---: | :---: |
| FOR THE YEAR | BEGINNING | T0 | TO OTHER |  | END OF |
| ENDED | OF PERIOD | INCOME | ACCOUNTS | DEDUCTIONS | PERIOD |
| 1993 | \$ 834,000 | \$693, 000 | $(\$ 68,000)(1)$ | \$215, 000 | \$1, 244, 000 |
| 1992 | 837,000 | 772,000 | 84,000 (2) | 859,000 | 834,000 |
| 1991 | 1,101,000 | 358, 000 | $(20,000)(1)$ | 602,000 | 837,000 |

(1) Represents primarily fluctuations resulting from the translation of foreign currencies.
(2) Represents primarily additions due to companies acquired and fluctuations resulting from the translation of foreign currencies.

QUAKER CHEMICAL CORPORATION AND SUBSIDIARIES
SCHEDULE IX -- SHORT-TERM BORROWINGS(1)
YEARS ENDED DECEMBER 31, 1993, 1992 AND 1991

|  |  |  | MAXIMUM | AVERAGE | WEIGHTED <br> AVERAGE |
| :---: | :---: | :---: | :---: | :---: | :---: |
| CATEGORY OF | BALANCE | WEIGHTED | AMOUNT OUT- | AMOUNT OUT- | INTEREST |
| AGGREGAGE | AT | AVERAGE | STANDING | STANDING | RATE |
| SHORT-TERM | END OF | INTEREST | DURING THE | DURING THE | DURING THE |
| BORROWINGS | PERIOD | RATE | PERIOD(2) | PERIOD(2) | PERIOD(3) |
| 1993 |  |  |  |  |  |
| Bank loans: |  |  |  |  |  |
| Parent and subsidiary companies.. | \$ 1,168, 000 | 10.0\% | \$ 3,168,000 | \$ 619,000 | 6.1\% |
| 1992 |  |  |  |  |  |
| Bank loans: |  |  |  |  |  |
| Parent and subsidiary companies.. | 971, 000 | 6.6\% | 21,264, 000 | 10, 042,000 | 6.0\% |
| 1991 |  |  |  |  |  |
| Bank loans: |  |  |  |  |  |
| Parent and subsidiary companies. | 14,500,000 | 7.0\% | 22,398, 000 | 17,607, 000 | 7.8\% |

(1) Short-term borrowings are principally short-term notes payable to banks and, in the case of certain subsidiary companies, various revolving lines of credit available to the subsidiary. Generally they may be renewed or extended beyond the maturity period as specified in the agreement.
(2) Based on amounts outstanding at the end of each monthly accounting period.
(3) The weighted average interest rate was calculated by dividing the interest expense for the period by the average amount outstanding during the period.

## EXHIBIT INDEX

| EXHIBIT NO. | DESCRIPTION |
| :--- | :--- |
| $10(\mathrm{a})$ | Long-Term Performance Incentive Plan <br> $10(\mathrm{~h})$ <br> Documents constituting employment contract <br> and M. C. J. Meijer. |
| $10(\mathrm{i})$ | Documents constituting retirement agreement <br> by and between Registrant and Ira R. <br> Dolich. |
| 21 | Portions of the 1993 Annual Report to Shareholders <br> Incorporated by Reference |
| 23 | Subsidiaries and Affiliates of the Registrant |
|  | Consent of Independent Accountants |

## 1. PURPOSE OF THE PLAN

This Long-Term Performance Incentive Plan (the "Plan") has been established to provide incentives and awards to those employees largely responsible for the long-term success of the Quaker Chemical Corporation (the "Company") and its subsidiaries. In addition, the Plan is intended to enable the Company to attract and retain executives in the future and to encourage key employees to acquire a proprietary interest in the performance of the Company by purchasing and owning shares of Common Stock of the Company.
2. GENERAL PROVISIONS

### 2.1 Definitions.

As used in the Plan:
(a) "Act" means the Securities Exchange Act of 1934, as amended.
(b) "Board of Directors" means the Board of Directors of the Company.
(c) "Code" means the Internal Revenue Code of 1986, as amended.
(d) "Committee" means the Long-Term Performance Incentive Committee of the Board of Directors.
(e) "Common Stock" means the Common Stock, par value $\$ 1.00$ per share, of the Company.
(f) "Fair Market Value" means, with respect to the date a given Stock Option or Stock Appreciation Right is granted or exercised, the last sale price (or, if no last sale price is reported, the average of the high bid and low asked price) for a share of Common Stock in the over-the-counter market, as reported on NASDAQ or, if not reported on NASDAQ, as quoted by the National Quotation Bureau Incorporated, or, if the Common Stock is listed on a national securities exchange, on the principal exchange on which the Common Stock is listed. If for any day the Fair Market Value of a share of Common Stock is not determinable by any
of the foregoing means, then the Fair Market Value for such day shall be determined in good faith by the Committee on the basis of such quotations and other considerations as the Committee deems appropriate.
(g) "Incentive Stock Option" means an option granted under the Plan, which is intended to qualify as an incentive stock option under Section 422 of the Code.
(h) "NASDAQ" means the National Association of Securities Dealers National Market.
(i) "Non-Qualified Stock Option" means an option granted under the Plan which is not an Incentive Stock Option.
(j) "Option Event" means the date on which beneficial ownership (determined in accordance with Rule 13d3 under the Act) of shares of the Company's Common Stock are acquired (other than directly from the Company in exchange for cash or property) by any Person (as used in Section 13 or 14 of the Act, as amended), other than a person who is an officer or director of the Company on December 23, 1992, who thereby becomes the beneficial owner (as defined in Rule 13d-3 under the Act) of more than $10 \%$ of the issued and outstanding shares of the Company's Common Stock.
(k) "Participant" means an employee of the Company or one or more of its Subsidiaries to whom a Stock Option, a Stock Appreciation Right and/or a Performance Incentive Unit has been granted under the Plan.
(1) "Performance Award Period" means a period of four (4) consecutive calendar years, the first of which shall commence on January 1, 1993 and the balance of which shall commence on January 1, of every second calendar year thereafter through 2001.
(m) "Performance Incentive Unit" means a unit granted in accordance with the provisions of Section 4.1 of the Plan.
(n) "Performance Program Target" means the performance program targets fixed by the Committee for a particular Performance Award Period.

Exhibit 10(a) Page
(o) "Rule 16b-3" means Rule 16b-3 promulgated under the Securities Exchange Act of 1934, as amended from time to time, or any successor Rule.
(p) "Stock Appreciation Right" means a right granted, pursuant to Section 3.7 of the Plan, to a holder of a Stock Option.
(q) "Stock Option" means an Incentive Stock Option or Non-Qualified Stock Option granted under the Plan.
(r) "Subsidiary" means any corporation whose outstanding voting securities having ordinary voting power to elect directors (other than securities having such power only by reason of the happening of a contingency) shall at the time be $50 \%$ or more owned, directly or indirectly, by the Company.
2.2 Administration of the Plan.
(a) The Plan shall be administered by the Committee which shall have the full power, subject to and within the limits of the Plan, to: (i) interpret and administer the Plan, and Stock Options, Performance Incentive Units and Stock Appreciation Rights granted under it; and (ii) make and interpret rules and regulations for the administration of the Plan and to make changes in and revoke such rules and regulations. The Committee, in the exercise of this powers, shall (i) generally determine all questions of policy and expediency that may arise and may correct any defect, omission, or inconsistency in the Plan or any agreement evidencing the grant of any Stock Option, Performance Incentive Unit or Stock Appreciation Right in a manner and to the extent it shall deem necessary to make the Plan fully effective; (ii) determine those eligible employees to whom Stock Options, Stock Appreciation Rights, and/or Performance Incentive Units shall be granted and the number of any thereof to be granted to any eligible employee, consistent with the provisions of the Plan; (iii) determine the terms of Stock Options, Stock Appreciation Rights, and Performance Incentive Units granted under the Plan, consistent with the provisions of the Plan; and (iv) generally, exercise such powers and perform such acts in connection with the Plan as are deemed necessary or expedient to promote the best interests of the Company.

Exhibit 10(a) Page
(b) The Committee shall consist of not less than two (2) members of the Board of Directors who are not, and who were not at any time within one year prior to their appointment to the Committee, either a Participant under the Plan or granted or awarded equity securities under any other plan of the Company or any affiliate of the Company which would disqualify them from being a "disinterested person" (as defined in Rule 16b-3) with respect to the Plan. The Board may also select one or more directors who satisfy the requirements in the preceding sentence as alternate members of the Committee who may take the place of any absent member or members of the Committee at any meeting of the Committee. The Committee may act only by a majority of its members then in office; the Committee may authorize any one or more of its members or any officer of the Company to execute and deliver documents on behalf of the Committee.

### 2.3 Effective Date.

This Plan shall be effective as of January 1, 1993, provided that the Plan is approved by the Company's shareholders on or before December 31, 1993. If the Plan is not approved by the Company's shareholders on or before December 31, 1993, this Plan and all awards previously granted thereunder become null and void.
2.4 Duration.

If approved by the shareholders of the Company, as provided in Section 2.3, unless sooner terminated by the Board of Directors, the Plan shall remain in effect until December 31, 2002.
2.5 Shares Subject to the Plan.

The maximum number of shares of Common Stock which may be subject to Stock Options granted under the Plan shall be 1,000,000, subject to adjustment in accordance with Section 5.1, which shares may be either authorized and unissued shares of Common Stock or authorized and issued shares of Common Stock purchased or acquired by the Company for any purpose. If a Stock Option or portion thereof shall expire or be terminated, cancelled or surrendered (other than in connection with the surrender of a Stock Option pursuant to Section 3.7(a)) for any reason without being exercised in full, the unpurchased shares of Common Stock which were subject to such Stock Option or portion thereof shall
be available for future grants of Stock Options under the Plan.

### 2.6 Amendments.

The Plan may be suspended, terminated or reinstated, in whole or in part, at any time by the Board of Directors. The Board of Directors may from time to time make such amendments to the Plan as it may deem advisable, including, with respect to Incentive Stock Options, amendments deemed necessary or desirable to comply with Section 422 of the Code and any regulations issued thereunder; provided, however, that, without the approval of the Company's shareholders no amendment shall be made which:
(a) Increases the maximum number of shares of Common Stock which may be subject to Stock Options granted under the Plan (other than as provided in Section 5.1); or
(b) Extends the term of the Plan; or
(c) Increases the period during which a Stock Option may be exercised beyond ten years from the date of grant; or
(d) Otherwise materially increases the benefits accruing to Participants under the Plan; or
(e) Materially modifies the requirements as to eligibility for participation in the Plan; or
(f) Will cause Stock Options, Stock Appreciation Rights or Performance Incentive Units issued or granted under the Plan to fail to meet the requirements of Rule 16b-3.

Termination or amendment of the Plan shall not, without the consent of the Participant, affect such Participant's rights under any Stock Option, Stock Appreciation Right or Performance Incentive Unit previously granted to such Participant.
2.7 Participants and Grants.

Stock Options, Stock Appreciation Rights and Performance Incentive Units may be granted by the Committee to those full-time salaried employees of the Company and its Subsidiaries who the Committee determines hold positions which enable them to have a
significant impact on the Company's long-term financial performance. The Committee may grant to eligible employees Incentive Stock Options and/or Non-Qualified Stock Options to purchase such number of shares of Common Stock (subject to the limitations of Section 2.5) and Stock Appreciation Rights and/or such number of Performance Incentive Units as the Committee may, in its sole discretion, determine. In determining the number of shares of Common Stock subject to a Stock Option and/or the number of Performance Incentive Units to be granted to an eligible employee, the Committee shall consider the employee's base salary, his expected contribution to the long-term performance of the Company, and such other relevant facts as the Committee shall deem appropriate. In granting Stock Options, Stock Appreciation Rights and Performance Incentive Units under the Plan, the Committee may vary the number of Incentive Stock Options, Non-Qualified Options, Stock Appreciation Rights and/or Performance Incentive Units to an eligible employee in such amounts as the Committee may determine in its discretion.

## 3. STOCK OPTIONS

### 3.1 General.

All Stock Options granted under the Plan shall be evidenced by written agreements executed by the Company and the employee to whom granted which agreement shall state the number of shares of Common Stock which may be purchased upon the exercise thereof and shall contain such investment representations and other terms and conditions as the Committee may from time to time determine, or, in the case of Incentive Stock Options, as may be required by Section 422 of the Code, or any other applicable law.

### 3.2 Price.

Subject to the provisions of Section 3.6(d) and Section 5.1, the purchase price per share of Common Stock subject to a Stock Option shall, in no case, be less than 100 percent (100\%) of the Fair Market Value of a share of Common Stock on the date the Stock Option is granted.

### 3.3 Period.

The duration or term of each Stock Option granted under the Plan shall be for such period as the committee

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Exhibit 10(a) Page
shall determine, but in no event more than ten (10) years from the date of grant thereof.

\subsection*{3.4 Exercise}

Subject to Section 5.1, no Stock Option shall be exercisable prior to the expiration of one (1) year from the date it is granted. Once exercisable, a Stock Option shall be exercisable, in whole or in part, by delivery of a written notice of exercise to the Secretary of the Company at the principal office of the Company specifying the number shares of Common Stock as to which the Stock Option is then being exercised together with payment of the full purchase price for the shares being purchased upon such exercise. Until the shares of Common Stock as to which a Stock Option is exercised are paid for in full and issued, the Participant shall have none of the rights of a shareholder of the Company.
3.5 Payment.

The purchase price for shares of Common Stock as to which a Stock Option has been exercised, may be paid:
(a) In United States dollars in cash, or by check, bank draft or money order payable in United States dollars to the order of the Company; or
(b) In the discretion of the Committee by note; or
(c) In the discretion of the Committee, by the delivery by the Participant to the Company of whole shares of Common Stock having an aggregate Fair Market Value on the date of payment equal to the aggregate of the purchase price of Common Stock as to which the Stock Option is then being exercised or by the withholding of whole shares of Common Stock having such Fair Market Value upon the exercise of such Stock Option; or
(d) In the discretion of the Committee, in United States dollars in cash, or by check, bank draft or money order payable in United States dollars to the order of the Company delivered to the Company by a broker in exchange for its receipt of stock certificates from the Company in accordance with instructions of the Participant to the broker pursuant to which the broker is required to deliver to the Company the amount of sale or loan proceeds required to pay the purchase price; or

Exhibit 10(a) Page
7
(e) In the discretion of the Committee, by a combination of any number of the foregoing.

The Committee may, in its discretion, impose limitations, conditions and prohibitions on the use by a Participant of shares of Common Stock to pay the purchase price payable by such Participant upon the exercise of a Stock Option.
3.6 Special rules for Incentive Stock Options.

Notwithstanding any other provision of the Plan, the following provisions shall apply to Incentive Stock Options granted under the Plan:
(a) Incentive Stock Options shall only be granted to Participants who are employees of the Company or its Subsidiaries.
(b) To the extent that the aggregate Fair Market Value of stock, with respect to which Incentive Stock Options are exercisable for the first time by a Participant during any calendar year under this Plan and any other Plan of the Company or a Subsidiary, exceeds \(\$ 100,000\), such Stock Options shall be treated as Non-Qualified Stock Options.
(c) Any Participant who disposes of shares of Common Stock acquired upon the exercise of an Incentive Stock Option by sale or exchange either within two (2) years after the date of the grant of the Incentive Stock Option under which the shares were acquired or within one (1) year of the acquisition of such shares, shall promptly notify the Secretary of the Company at the principal office of the Company of such disposition, the amount realized, the purchase price per share paid upon exercise and the date of disposition.
(d) No Incentive Stock Option shall be granted to a Participant who, at the time of the grant, owns stock representing more than ten percent (10\%) of the total combined voting power of all classes of stock either of the Company or any parent or Subsidiary of the Company, unless the purchase price of the shares of Common Stock purchasable upon exercise of such Incentive Stock Option is at least one hundred ten percent (110\%) of the Fair Market Value (at the time the Incentive Stock Option is granted) of the Common Stock and the

Incentive Stock Option is not exercisable more than five (5) years from the date it is granted.
3.7 Stock Appreciation Rights.
(a) Grant.

Stock Appreciation Rights may be granted under the Plan by the Committee, but only in connection with all or any part of a Stock Option granted under the Plan. Stock Appreciation Rights may be granted either concurrently with the grant of a Stock Option or at any time thereafter during the term of the Stock Option. A Stock Appreciation Right shall be exercisable only upon surrender of the related Stock Option or portion thereof and shall entitle the Participant to receive the excess of the Fair Market Value of the shares of Common Stock for which the Stock Appreciation Right is exercised on the date of such exercise over the purchase price per share of Common Stock under the related Stock Option. Such excess is hereafter call the "Spread."
(b) Exercise of Stock Appreciation Right.

Stock Appreciation Rights shall be exercisable at such time as and to the extent, but only to the extent, that the Stock Option to which they relate shall be exercisable and shall be subject to any other terms and conditions, not inconsistent with the Plan, as may be fixed by the Committee at the time the Stock Appreciation Right is granted. No Stock Appreciation Right shall be exercisable prior to the later of: (i) six (6) months and one (1) day following the date on which such Stock Appreciation Right was granted, or (ii) the date on which the related Stock Option or any portion thereof first becomes exercisable. Shares of Common Stock subject to a Stock Option surrendered by a Participant in connection with an exercise of Stock Appreciation Rights may not again be subjected to Stock Options under the Plan. Upon the exercise of Stock Appreciation Rights the Participant shall be entitled to receive from the Company in exchange for the surrendered Stock Option or portion thereof, an amount equal to the Spread either in cash, or in shares of Common Stock having a Fair Market Value equal to the Spread, or both, as the Committee may determine; provided, however, that the number of shares of

Exhibit 10(a) Page
9

Common Stock which a Participant may receive upon the exercise of Stock Appreciation Rights may not exceed the number of shares of Common Stock subject to the Stock Option or portion thereof surrendered upon exercise of such Stock Appreciation Rights. The shares of Common Stock issuable upon exercise of Stock Appreciation Rights may consist either in whole or in part of authorized and unissued shares of Common Stock or authorized and issued shares of Common Stock purchased or acquired by the Company for any purpose. If shares of Common Stock are to be issued to a Participant upon exercise by the Participant of Stock Appreciation Rights, such Participant shall have none of the rights of a shareholder of the Company until the shares of Common Stock are issued.
3.8 Termination of Employment.
(a) In the event a Participant's employment by the Company or its Subsidiaries shall be terminated for cause, as determined by the Committee, while the Participant holds Stock Options granted under the Plan, all Stock Options held by the Participant shall expire immediately.
(b) If a Participant, while holding Stock Options, (i) retires upon reaching his normal retirement date or having elected early retirement under a formal plan or policy of the Company, or (ii) dies, then each Stock Option held by the Participant shall be exercisable by the Participant (or, in the case of death, by the executor or administrator of the Participant's estate or by the person or persons to whom the deceased Participant's rights thereunder shall have passed by will or by the laws of descent or distribution) until the earlier of (A) its stated expiration date, or, (B) the date occurring three (3) years after the date of such retirement or death, as the case may be. If a Participant's employment by the Company or its Subsidiaries shall terminate as a result of the Participant's total disability, while such Participant is holding Stock Options, then each Stock Option held by the Participant shall be exercisable by the Participant until its stated expiration date. For purposes of the foregoing sentence, "total disability" shall mean a permanent mental or physical disability as determined by the Committee.
(c) If a Participant's employment by the Company or its Subsidiaries shall terminate for any reason not specified in Sections 3.8(a) or (b), the Participant shall, to the extent otherwise exercisable, have the right to exercise the Stock Options held by him or her at the date of termination for a period of three (3) months; provided, however, that in no event shall such Stock Options be exercisable after their stated expiration date.
(d) Stock Options held by a Participant at the time of the termination of his employment by the Company or its Subsidiaries which, by their terms are not then exercisable, shall, subject to, and except as otherwise provided by, the provisions of (i) this Section 3.8 regarding expiration or lapse, and (ii) Section 3.10 regarding acceleration and redemption become exercisable (if at all) at the times, and otherwise in the manner, set forth in connection with their original grant.

\subsection*{3.9 Effect of Leaves of Absence.}

It shall not be considered a termination of employment when a Participant is on military or sick leave or such other type of leave of absence which is considered as continuing intact the employment relationship of the Participant with the Company or its Subsidiaries. In case of such leave of absence, the employment relationship shall be continued until the later of the date when such leave equals ninety days or the date when the Participant's right to reemployment shall no longer be guaranteed either by statute or contract.
3.10 Acceleration and Redemption.

Upon the occurrence of an Option Event, (a) all Stock Options granted and outstanding under the Plan shall become immediately exercisable in full regardless of any terms of said Stock Option to the contrary; and (b) until the earlier to occur of the stated expiration date of the Stock Option and the expiration of the ninety (90) day period following written notice from the Company to all Participants of the occurrence of the Option Event, all Participants shall have the right to demand that the Company cancel and redeem any and all Stock Options held by the Participant by paying with respect to each such Stock Option a price equal to the difference between the purchase price per share of Common Stock subject to such Stock Option and the

Exhibit 10(a) Page
11
highest price that can be determined to have been paid by any Person (as that word is used in Section 2.1(j)) for any share or shares of the Company's Common Stock prior to the earlier to occur of the stated expiration date of the Stock Option and the expiration of the aforementioned ninety (90) day demand period.

\section*{4. PERFORMANCE INCENTIVE UNITS}
4.1 Grant.

From time to time during each Performance Award Period, the Committee may grant Performance Incentive Units to eligible employees in conjunction with or separately from a grant of Stock options; provided, however, that Performance Incentive Units shall not be granted to any one eligible employee more often than once with respect to a Performance Award Period.
4.2 Establishment of Stated Value and Performance Program Targets.

At the beginning of each Performance Award Period, the Committee shall establish the Performance Program Targets applicable to that Performance Award Period (which may be expressed as increases in the Company's earnings per share, return or average return on invested capital or in terms of any financial or other standard, or combinations thereof, as the Committee may determine in its discretion), the Stated Value (which shall be expressed in dollars) of Performance Incentive Units to be granted with respect to such Performance Award Period, and shall fix the percentage, if any, of the Stated Value to be earned upon the achievement of the Performance Program Targets established for the relevant performance Award Period; provided, however, that the percentage of Stated Value to be earned upon achievement of the maximum Performance Program Target established with respect to a Performance Award Period shall in no event exceed \(200 \%\) of Stated Value fixed for that Performance Award Period.

If the Committee determines that an unforeseen change during a Performance Award Period in the Company's business operations, corporate structure, capital structure or manner in which it conducts business is extraordinary and material and that the Performance Program Targets established for the Performance Award Period are no longer suitable, the Committee may, but only with the concurrence of the Board of Directors, modify the Performance Program Targets as it deems
appropriate and equitable; provided, however, that no such modification shall increase the Performance Program Targets in effect for any Performance Award Period (i.e., establish a target that is more difficult to achieve than the original Performance Program Target) .

\subsection*{4.3 Payment.}

As promptly as practicable after the end of each Performance Award Period, the Committee shall, pursuant to Section 4.2 of the Plan, determine the earned percentage of Stated Value of the Performance Incentive Units granted with respect to such completed Performance Award Period. The Company shall, as soon as practicable after such determination has been made, pay to each Participant holding Performance Incentive Units granted with respect to such completed Performance Award Period, for each such Performance Incentive Units held by him or her an amount equal to the product obtained by multiplying Stated Value by the earned percentage of Stated Value.
4.4 Termination of Employment.

If a Participant's employment by the Company and its Subsidiaries terminates for any reason, the Performance Incentive Units held by the Participant with respect to any Performance Award Period which has not ended at the date of such termination shall become null and void; provided, however, that the Committee, in its sole discretion, shall have the right to authorize proportionate payment in cases of death or retirement at the normal retirement date or under a formal early retirement plan or policy of the Company, if the Committee in its discretion determines a payment to be appropriate and equitable.

\section*{5. MISCELLANEOUS PROVISIONS}
5.1 Adjustments Upon Changes in Capitalization.

In the event of changes to the outstanding shares of Common Stock of the Company through reorganization, merger, consolidation, recapitalization, reclassification, stock split-up, stock dividend, stock consolidation or otherwise, or in the event of a sale of all or substantially all of the assets of the Company, an appropriate and proportionate adjustment shall be made in the number and kind of shares as to which Stock Options may be granted. A corresponding
adjustment changing the number or kind of shares and/or the purchase price per share of unexercised Stock Options or portions thereof which shall have been granted prior to any such change shall likewise be made. Notwithstanding the foregoing, in the case of a reorganization, merger or consolidation, or sale of all or substantially all of the assets of the Company, in lieu of adjustments as aforesaid, the Committee may in is discretion accelerate the date after which a Stock Option may or may not be exercised or the stated expiration date thereof and may accelerate the termination date of any Performance Award Period then in effect. Adjustments or changes under this Section shall be made by the Committee, whose determination as to what adjustments or changes shall be made, and the extent thereof, shall be final, binding and conclusive.

\subsection*{5.2 Non-Transferability.}

No Stock Option, Stock Appreciation Right or Performance Incentive Unit granted under the Plan shall be transferable by the Participant except by will or the laws of descent and distribution, nor shall any Stock Option be exercisable during the Participant's lifetime by any person other than the Participant or his guardian or legal representative.

\subsection*{5.3 Withholding.}

The Company's obligations in connection with this Plan shall be subject to applicable federal, state and local tax withholding requirements. Federal, state and local withholding tax due at the time of a grant or upon the exercise of any Stock Option may, in the discretion of the Committee, be paid in shares of Common Stock already owned by the Participant or through the withholding of shares otherwise issuable to such Participant, upon such terms and conditions as the Committee shall determine. If the Participant shall either fail to pay, or make arrangements satisfactory to the Committee for the payment, to the Company of all such federal, state and local taxes required to be withheld by the Company, then the Company shall, to the extent permitted by law, have the right to deduct from any payment of any kind otherwise due to such Participant an amount equal to any federal, state or local taxes of any kind required to be withheld by the Company.
5.4 Compliance with Law and Approval of Regulatory Bodies.

No Stock Option, Stock Appreciation Right or
Performance Incentive Unit shall be exercisable and no shares will be delivered under the Plan except in compliance with all applicable federal and state laws and regulations including, without limitation, compliance with all federal and state securities laws and withholding tax requirements and with the rules of NASDAQ and of all domestic stock exchanges on which the Common Stock may be listed. Any share certificate issued to evidence shares for which a Stock Option is exercised may bear legends and statements the Committee shall deem advisable to assure compliance with federal and state laws and regulations. No Stock Option, Stock Appreciation Right or Performance Incentive Unit shall be exercisable and no shares will be delivered under the Plan, until the Company has obtained consent or approval from regulatory bodies, federal or state, having jurisdiction over such matters as the Committee may deem advisable. In the case of the exercise of a Stock Option or Stock Appreciation Right by a person or estate acquiring the right to exercise the Stock Option or Stock Appreciation Right as a result of the death of the Participant, the Committee may require reasonable evidence as to the ownership of the Stock Option or Stock Appreciation Right and may require consents and releases of taxing authorities that it may deem advisable.
5.5 No Right to Employment.

Neither the adoption of the Plan nor its operation, nor any document describing or referring to the Plan, or any part thereof, nor the granting of any Stock Options, Stock Appreciation Rights or Performance Incentive Units hereunder, shall confer upon any Participant under the Plan any right to continue in the employ of the Company or any Subsidiary, or shall in any way affect the right and power of the Company or any Subsidiary to terminate the employment of any Participant at any time with or without assigning a reason therefor, to the same extent as might have been done if the Plan had not been adopted.
5.6 Exclusion from Pension Computations.

By acceptance of a grant of a Stock Option, Stock Appreciation Right or Performance Incentive Unit under the Plan, the recipient shall be deemed to agree that any income realized upon the receipt or exercise
thereof or upon the disposition of the shares received upon exercise will not be taken into account as "base remuneration", "wages", "salary" or "compensation" in determining the amount of any contribution to or payment or any other benefit under any pension, retirement, incentive, profit-sharing or deferred compensation plan of the Company or any Subsidiary.
5.7 Separability.

If any of the terms of provisions of the Plan conflict with the requirements of Rule 16b-3, then such terms or provisions shall be deemed inoperative to the extent they so conflict with the requirements of Rule 16b-3.
5.8 Interpretation of the Plan.

Headings are given to the Sections of the Plan solely as a convenience to facilitate reference, such headings, numbering and paragraphing shall not in any case be deemed in any way material or relevant to the construction of the Plan or any provision hereof. The use of the masculine gender shall also include within its meaning the feminine. The use of the singular shall also include within its meaning the plural and vice versa.
5.9 Use of Proceeds.

Funds received by the Company upon the exercise of Stock Options granted under the Plan shall be used for the general corporate purposes of the Company.
5.10 Construction of Plan.

The place of administration of the Plan shall be in the Commonwealth of Pennsylvania, and the validity, construction, interpretation, administration and effect of the Plan and of its rules and regulations, and rights relating to the Plan, shall be determined solely in accordance with the laws of the Commonwealth of Pennsylvania.

Mr. M. C. J. Meijer
Bruglaan 3
3743 JB BAARN

\author{
Uithoorn, April 10, 1990
}

Dear Marc,
With reference to your appointment in the position of Vice President in the to be established Quaker Chemical Europe B.V. organization, please find herewith:
- your letter of appointment;
- an overview of your main actual employment conditions and your employment conditions effective January 1, 1991;
- a summary of general terms of employment for members of the Quaker Europe Management Team;
- your position description;
- the Declaration of Secrecy and Non-competition.

You are kindly requested to return the enclosures, each single page signed for agreement to the Personnel Department.

As you know, the current status of Quaker Chemical Europe B.V. is that of a dormant company. As soon as the Quaker Chemical Europe B.V. has been established, you will have to sign the official contract plus enclosures.

Compared with your actual salary the incorporation of \(15 \%\) of the "old" bonus will be compensated to you in December 1990.

During 1990, the Employment Conditions for Quaker Chemical (Holland) B.V. will remain applicable to you.
```

Best regards,
QUAKER CHEMICAL (HOLLAND) B.V.
M. J. van der Burgt
Personnel Manager
Exhibit 10(h) Page

```

PAGE 1 - LETTER OF APPOINTMENT OF MR. M. C. J. MEIJER

Referring to earlier discussions with you, we are pleased to confirm that we have offered you the position of Vice President in our Quaker Europe organization effective January 1, 1991.

As per January 1, 1991, your actual position will no longer exist in Quaker Chemical (Holland) B.V.; consequently, your employment contract with Quaker Chemical (Holland) B.V. will be terminated per that date. Instead, your employment agreement as of January 1, 1991 shall be with Quaker Chemical Europe B.V.

As Addendum 1 to this letter of appointment, you will find an overview of employment conditions that formed the basis for our discussion with you on March 20, 1990 in which we reached formal agreement. In fact, Addendum 1 provides for a comparison between the main conditions agreed upon for your current employment agreement with Quaker Chemical (Holland) B.V. and the main conditions agreed upon for your future employment agreement with Quaker Chemical Europe B.V.

Addendum 2 to this letter of appointment contains the General Terms of Employment of the Quaker Chemical Europe B.V. Management Team. These General Terms form part of your employment agreement with Quaker Chemical Europe B.V.

The individual terms of your employment agreement with Quaker Chemical Europe B.V. read as follows:
and may be terminated at any time by either party upon the giving of notice of six months prior to the effective date of such termination.
1.b. If the Company acts to terminate the employment for reasons which are in the Company's opinion beyond the Vice President's fault, a settlement shall be paid at the expiration of the six months notice period. The amount of the settlement shall be two months income per full year of service at the termination date with a maximum of 24 months. For the purpose of this paragraph b, "income" shall mean base salary in addition to the vacation allowance ( \(8-1 / 2 \%\) of the base salary) and a bonus payment equal to \(1 / 12\) th of the base salary as referred to in Article 7 hereof.

In the event Quaker Chemical Corporation is acquired or otherwise falls under the majority control of a third party, a 24 month salary, bonus, and vacation allowance will be paid if the Vice President elects to resign his position within 12 months of such change in control.

\section*{Exhibit 10(h) Page \\ 2}
1.c. If the employment is terminated for reasons other than described in Article \(1 b\) above, no settlement will be due.
2. The applicable position description is attached hereto as Addendum 3 and forms part of the terms of your employment agreement.
3. Effective January 1, 1991, your monthly salary will amount to Dfl. 23.326,--, excluding a possible general salary increase or merit increase as per that date.

The position of Vice President Europe is included in position class 19 with a minimum salary of Dfl. 19.222,38, a job rate salary of Dfl. \(28.664,95\) and a maximum salary of \(D f 1\). 33.723,48 per month.

In your specific situation the maximum salary to be reached amounts to Dfl. \(36.414,48\) per month. Your relative salary position towards job rate is \(81 \%\) and towards "personal" maximum is 64\%.

See Article 1 of Addendum 2.
4. The character of the position of Vice President implies that you will obtain detailed knowledge of Quaker technology and know-how. In view hereof, the Declaration of Secrecy and Noncompetition, which is attached hereto as Addendum 4, forms part of the terms of your employment agreement.
5. You will be entitled to a vacation allowance of \(8.5 \%\) of your annual base salary ( \(12 \times\) monthly salary), which will be paid out to you in April of each year.
6. In view of the representative character of your job, you will be entitled to a representation allowance of Dfl. 600,-- per month net. This allowance should not be seen as salary, but is meant as compensation for expenses resulting from the entertainment of business relations at home, etc. In case there will be a change in the Dutch (tax) law, the new (tax) legislation will be applied.
7. You will receive a yearly bonus payment, which will be paid in December of each year. The bonus system is based on \(0,75 \%\) of the consolidated European Profit From Operations (P.F.O.) with a maximum of \(16.67 \%\) of \(12 \times\) monthly salary. For 1991, a guaranteed bonus of \(47.6 \%\) ( \(=16.67 \%\) : 35\%) of the subject B.V. percentage will be applied. Consequently, the best of the two will be applicable to you.

See Article 2 of Addendum 2.
8. You will be entitled to an annual performance incentive on which you will find full details in Article 3 of Addendum 2. The formula is based on the principle of the achievement of your financial goals and your personal goals.
9. You will be entitled to a company automobile for business and personal use with full maintenance and cost of fuel for both business and personal travel. In accordance with the subject Company Car Policy, for 1990, the car may cost a maximum of Dfl. 67.275,--, excluding VAT which amount will be reviewed on a yearly basis.

See Article 4 of Addendum 2.
10. You will be entitled to 100\% reimbursement of your telephone expenses upon receipt of the PTT-bill. If there should be a change in the Dutch (tax) law, the new (tax) legislation will be applied.
11. You will participate in the (premium free) Company Pension Scheme; all pension rights resulting from your employment contract with Quaker Chemical (Holland) B.V. will be taken over by Quaker Chemical Europe B.V. Your pension base consists of : 13 times the basic monthly salary plus the vacation allowance ( \(8.5 \%\) of \(12 \times\) monthly salary), less the franchise; with the exception of this pension base, all elements as stated in the Pension Regulations will be applicable to you.

For details, also on widow(er) pension, early retirement and extra payment on (early) retirement, see Article 5 of Addendum 2.
12. You will participate in the (premium free) Company Collective Health Insurance Scheme, the Business Travel Accident Insurance, the Travel Luggage Insurance, and the Supplementary Disability Insurance.

See Article 6 of Addendum 2.
13. You are entitled to the "spouse travel arrangement," which serves to compensate the family inconvenience by frequent travel; you are allowed to be accompanied by your wife once per year on one approved business trip with a maximum of seven days paid by Quaker; the place is determined by the business trip and the days are not in addition to the trip.
14. You will be entitled to a number of paid holidays in accordance with the Company Holiday Arrangement.

See Article 7 of Addendum 2.
15. You are entitled to join the Company Premium Savings Plan.

See Article 8 of Addendum 2.
16. With regard to Jubilee gifts, see Article 9 of Addendum 2 for details.
17. In case of relocation, you will be entitled to reimbursements in accordance with Article 10 of Addendum 2.
18. The above provisions reflect all employment conditions applicable to you as of January 1, 1991. Any other employment conditions which might have been agreed upon with you previously either verbally or in writing are no longer applicable as of January 1, 1991.

If you agree with the contents of this letter of appointment, we expect you to return a signed copy of this letter and of its Addenda, each single page signed by you.

We are convinced that you are able to contribute substantially to the long-term growth and diversification strategy of our company.

Sincerely yours,
Signed for agreement:
Quaker Chemical Europe B.V.
E. R. Aemisegger

Vice President-International Operations

\section*{ADDENDUM 2}

To Letter of Appointment dated April 10, 1990
SUMMARY OF GENERAL TERMS OF EMPLOYMENT

\section*{FOR MANAGEMENT OF}

\section*{QUAKER CHEMICAL EUROPE B.V.}
1. Salary

Salary ranges are laid down in a scale with minimums and maximums. Salaries are based on job classification and years of experience. Depending on the performance appraisal result, merit increases may be granted until the maximum of the range is reached.
2. Bonus

The bonus system is based on \(0.75 \%\) of the Profit From Operations (PFO) of the European consolidated result, with a maximum of \(16.67 \%\) of the basic annual salary (= \(12 \times\) monthly salary).
3. Incentive Plan

This plan applies to the Vice President and the members of the Quaker Chemical Europe Management Team. The exact formula will be communicated with participants during 1990.
4. Company Car

The members of the Quaker Europe Management Team are eligible for a company automobile for business and personal use, in accordance with the company car policy. The car for the Vice President Europe may cost f 67.275,--, excluding VAT (for 1990), to be reviewed on a yearly basis.

The car for the Quaker Europe Management Team members may cost f 46.893,--, excl. VAT (for 1990), to be reviewed on a yearly basis.
5. Old Age Pension

Employees of 25 years of age and older are building up an old age pension of \(1.75 \%\) per annum based on a final pay system. The premium is fully paid by Quaker. The old age pension is integrated and will be paid out together with the government old age pension.

Pensionable salary \(=13 x\) monthly salary + vacation allowance (8.5\% of \(12 \times\) monthly salary) -/- the franchise.
- Widow/Widower Pension Arrangement

In case of the death of an employee, the widow/widower receives a pension of \(70 \%\) of the employee's old age pension and \(14 \%\) for each child under 21 years of age.
- Early Retirement

Employees who have been in Quaker's employment for at least 10 consecutive years and wish to retire at the age of 62-1/2 years are paid \(90 \%\) of their annual income (base salary + holiday allowance) during the first year and \(80 \%\) during the following 1-1/2 year. The early retirement arrangement excludes specific situations of participation.
- Extra Payment on the Occasion of Retirement/Early Retirement. On the occasion of retirement at the age of 65 or entrance in the early retirement, the parting employee will receive an extra payment of one month gross salary; possible taxes will be deducted.
6. Insurance and Additional Arrangements

Collective Health Insurance
Quaker has affected a Collective Health Insurance with
"Nationale Nederlanden." In principle, there is 100\% coverage. The package also includes basic dentist insurance; the premium is fully paid by Quaker.
- Business Travel Accident Insurance

The Business Travel Accident Insurance provided by the parent company covers all employees in case of accident while travelling on company business. The principal sum of Accidental Death and Dismemberment Insurance is: \$100,000.
* Apart from this there is a "24 hour Collective Accident/Disability Insurance" that provides coverage for all employees equal to a maximum of three times the yearly income (basic salary plus holiday allowance and \(10 \%\) bonus).

Both policies contain certain exclusions.

> Exhibit 10(h) Page

7
- Travel (Luggage) Insurance

Luggage of employees travelling abroad (world coverage) is insured to a maximum of \(f 5.00,-\) per occasion split up in: Luggage: Dfl. 4000,-- with a maximum of \(25 \%=\) Dfl. 1000,-for high value items (camera, jewelry, etc.); cash: Dfl. 1000,--; each individual has an own risk of Dfl. 100,-- per occasion, the premium is paid by Quaker.
- Supplementary Disability Insurance

An additional disability insurance has been arranged since the Government Disability Insurance covers annual salaries up to a maximum of \(f 69.392,--\) only. The insurance covers a disability benefit of \(80 \%\) of \(12 \times\) the monthly salary + holiday allowance + a 13th month. The premium is fully paid by Quaker. The policy may exclude certain "high risk" factors depending on medical (non) acceptance.
- Income During Sickness and Permanent Disablement

Employees who comply with the regulation of the Sickness Benefits Act/Disablement Insurance Act will, in case of a total disablement to work because of sickness, receive an addition to \(100 \%\) net income (including bonus and holiday allowance) during and in total for a maximum period of 24 months.
- Natural Death

In case of natural death of an employee, heirs are paid an amount equal to 3 months' salary net.
- Medical Examination

Members of the European Management Team are entitled to a yearly medical examination to be arranged by the Personnel Department.
- Home Help Arrangement

In case of illness of the wife/life partner of an employee or in case of illness of a single employee with children, Quaker will contribute \(50 \%\) of the costs of a professional who will take over the normal care of the family under certain conditions.
7. Holidays
- Holiday Allowance

All QCE employees are paid a holiday allowance of \(8.5 \%\) of their annual salaries. The holiday allowance is paid out in April.
- The basic number of holidays is 26. This number is increased according to the age to be reached in the year concerned if over 35:
\(20-34\) years of age: 26 days
\(35-39\) years of age: 27 days
\(40-44\) years of age: 28 days
\(45-49\) years of age: 29 days
\(50-54\) years of age:
\(55-65\) days
55 years of age:
8. Savings
- Company Premium Savings Plan

All QCE employees can join the company premium savings plan after 6 months of service. Quaker gives a savings premium of \(50 \%\) with a maximum of \(f 750,-\) per year.
- Loan for Mortgages

Every employee is eligible for a loan when purchasing the first house for self-occupance. Repayment of the loan is at least \(10 \%\) per year. The maximum of the loan is \(50 \%\) of the employee's annual salary, with a maximum of f 25.000,--. The interest rate is prime rate ("promesse disconto") plus 1.5.
9. Jubilee Gift

Employees will receive a Jubilee gift:
- on the occasion of \(12-1 / 2\) years of service a net amount of f1. 250, - - ;
- on the occasion of 25 years of service a net amount of f 1.750,--;
- on the occasion of 40 years of service a net amount of f2.500,--.
10. Relocation
----------
- Relocation Expenses

If an employee moves to an area within 40 KM from the place where Quaker Chemical Europe is based, he/she will be reimbursed for the transportation of his/her household effects.
- Redecoration Allowance

If an employee moves to an area within 40 KM from the place where Quaker Chemical Europe is based, he/she will receive a redecoration allowance to the amount of \(1-1 / 2\) times the gross monthly salary net, up to a maximum amount of \(f 12.000,--n e t\).

Quaker Chemical Europe B.V. Signed for agreement

By:
Name:

Date: Date:

\section*{Exhibit 10(h) Page}

10
\begin{tabular}{lll} 
COMPANY & \(:\) & Quaker Chemical Europe B.V. \\
DEPARTMENT & \(:\) & Quaker Chemical Europe \\
POSITION & \(\vdots\) & Vice President \\
POSITION HOLDER & \(\vdots\) & M. C. J. Meijer \\
REPORTS TO (Title) & \(:\)\begin{tabular}{l} 
President, Quaker Chemical \\
Corporation
\end{tabular} \\
REPORTS TO (Name) & \(:\)\begin{tabular}{l} 
S.W. W. Lubsen
\end{tabular} \\
DATE & \(\vdots\) & April 1990 \\
APPROVED BY POSITION HOLDER & \(:\) & \\
APPROVED BY SUPERIOR & \(:\) &
\end{tabular}

\section*{FUNCTION}
- -------

The establishment and maintenance of an organization for the direction, control, and support of all European operations to achieve the Corporate objectives of profit, growth, and return on invested capital.

SCOPE
- ---

The European Vice President is responsible to the President, Quaker Chemical Corporation, for Quaker Chemical Europe (QCE) activities in all areas of Europe, Africa (excluding Southern Africa), and the Middle East including the Persian Gulf states.

PRINCIPAL DUTIES
1. Consolidated Affiliates

Structure, direct, and control the marketing, technical, manufacturing, financial, and administrative functions to best meet Corporate objectives.

Organize and direct the liaison between European affiliates and European Headquarters.

Organize and direct the liaison between European Headquarters and Conshohocken.

Establish and ensure maintenance of legal, accounting, and banking services in accordance with sound business procedures.

In review and consultation with the Managing Director of each affiliate, ensure effective management.

Provide short and longer term operating and capital budgets.
Review capital expenditure programs to ensure their adequacy in support of anticipated operations but in conformity to return on invested capital objectives.

Direct the organization and program for training employees with special attention to management development and succession.

Provide guidance in establishing and maintaining the best possible Corporate image in the European Arena and countries of residence.
2. License Agreements

Responsible for assisting in the negotiation of new and servicing of established licensing agreements.

Organize and direct the supply of technical and marketing assistance.

Assure timely remission of license fees and reimbursable expenses to Quaker Chemical Corporation.

Provide the organization and program for the indoctrination and training of employees of the licensee company.
3. General

Management development: Responsible for the development and maintenance of a climate --
- conducive to a free flow and exchange of ideas where job experience and training of individuals enable realization of optimal career potential.
- where managers can develop, and members of the top management group will have maximum opportunities to qualify for Vice Presidential, COO, and CEO positions.

Organizational Development: Ensures individually and collectively an organizational structure designed for effective implementation of internal development programs.

Corporate Planning: Responsible for individual affiliates and total European operations for the development and maintenance of programs to ensure growth and conformity to the Management Plan. While principal growth is envisioned to be generated through internal programs, external means are to be explored and possibly utilized

Constantly explore, determine, and review potential in new diversified areas of activity and submit to the President specific recommendations in regard to new development.

Represent the Corporation's interest in negotiations for new European associations.

Cooperate with Corporate operations to ensure a two-way flow of technical and market information.

Maintain regular written and personal contact with all European affiliated and licensee companies.

Act in an advisory capacity with other members of top management to ensure integration of activities of European operation with overall Corporate objectives and plans.

Development and maintenance of a strategic assessment of Quaker's investments in Europe.

Exhibit 10(h) Page
13

\section*{SECRECY}

The undersigned Employee shall not, whether during his employment agreement with Quaker Chemical Europe B.V. or at any time thereafter, reveal to third parties in any way, in whatever form, either directly or indirectly, any information regarding or relating to the business of Employer of which he reasonably may understand that this is not intended for knowledge of third parties, irrespective of the source of such information, on forfeiture of a penalty payable forthwith in favour of Employer of Dfl. 100.000,-- for each infringement, without prejudice, to the right of Employer to claim actual damages in addition to such penalty. The aforementioned information includes, for example, any specific Quaker formulation and any specific Quaker working method or process, but does not include any working methods in which Employee has gained experience during his employment relationship with Employer and which are in the public domain.

NON-COMPETITION
----------------
The undersigned Employee shall not, during a period of 12 months after the termination of his employment agreement with Quaker Chemical Europe and within Europe, without prior written approval of Employer establish, carry on, or cause to be carried on a business which is in any form competitive with the business of Employer or have interest in or be active in or on behalf of such business in whatever way.

The undersigned Employee forfeits in favour of Employer a penalty payable forthwith of Dfl. 100.00,-- for each day of infringement of the above-mentioned prohibition without prejudice to the right of Employer to claim actual damages in addition to such penalty.

Employer may at any time at his own initiative or at the request of the undersigned Employee, wholly or partly, waive the stipulation referred to in this article. As long as the undersigned Employee has not requested Employer to waive the stipulation as referred to in this article, this stipulation shall be deemed between the parties not to harm the Employee unreasonably nor to impede him in a significant way to be employed otherwise than by Employer.

QUAKER CHEMICAL EUROPE B.V. Signed for agreement

By: \(\qquad\)

Date: \(\qquad\)

Name:

Date: \(\qquad\)

Mr. Ira R. Dolich
108 S. Mansfield Boulevard
Cherry Hill, NJ 08034-3613
Dear Ira:
Confirming our discussion, as a result of our restructuring effort, one of the alternatives I am considering includes the reassignment of the tasks associated with the position of Vice President,
Quality and Information Services and, therefore, provide you with the option of taking the following early retirement package.

TERMINATION OF EMPLOYMENT

Under this agreement, your service would terminate December 31, 1993.

\section*{TOTAL RETIREMENT BENEFIT}

Your annual benefit payable monthly from January 1, 1994 through May 1, 1997 will be \(\$ 94,181\) and \(\$ 83,345\) thereafter for life. It is composed of the following:
\begin{tabular}{lccc}
\hline & & ANNUAL BENEFIT \\
SOURCE & \(1 / 94-5 / 95\) & \(6 / 95-5 / 97\)
\end{tabular} \begin{tabular}{c}
\(6 / 97\) \& LATER \\
Qualified Plan \\
SRIP
\end{tabular}

Exhibit 10(i) Page

Mr. Ira R. Dolich
December 1, 1993
Page Two

These benefits are explained below:
QUALIFIED PLAN

Your January 1, 1994 Quaker Chemical Pension Plan accrued benefit reduced for early retirement at 60 with monthly payments starting June 1, 1995 is \$36,920. You may, of course, choose to start payments on a later date.

SUPPLEMENTAL RETIREMENT INCOME PROGRAM (SRIP)

Your January 1, 1994 SRIP accrued annual benefit reduced for early retirement at 60 with monthly payments starting June 1, 1995 is \(\$ 27,197\). If you choose to start Qualified Plan payments on a later date, your SRIP benefit will start on that same later date.

\section*{SOCIAL SECURITY BRIDGE}

Additionally, we will provide you with an annual "Social Security Bridge" payment of \(\$ 10,836\) beginning January 1, 1994 until such a time as you turn 62 and are eligible to begin drawing Social Security. If either you or your spouse dies before May 1, 1997, the full unreduced amount will continue to be paid to the survivor until the earlier of the survivor's death and May 1, 1997. No
payments go to anyone upon the survivor's death.

\section*{ADDITIONAL BENEFIT PAYMENT}

Beginning January 1, 1994, you will receive an additional temporary annual benefit of \(\$ 83,345\) through May 1, 1995, reducing to \(\$ 19,228\) thereafter. These additional payments increase your total payout to an amount equal to your January 1, 1994 accrued benefit plus a temporary payment equal to your estimated age 62 Social Security benefit.

PAYMENT OPTIONS

Except for the Social Security Bridge, the retirement incomes stated in this letter are payable to you as a single life annuity with no further payments to anyone after your death. You may elect to receive your total benefit excluding the Social Security Bridge

\author{
Exhibit 10(i) Page
}

Mr. Ira R. Dolich
December 1, 1993
Page Three
as a reduced joint and survivor annuity based on actuarial reduction factors specified in the Qualified Plan.

Irrespective of the payment option you elect to apply to the early retirement benefits described herein, the Qualified Plan's Qualified Pre-Retirement Survivor Annuity and Qualified Joint and Survivor Annuity provisions continue to apply to your Qualified Plan benefits and are, of course, unaffected by the early retirement benefits described herein.

Finally, all of the payments you receive as described herein will be subject to all applicable federal, state, and local withholding and employment tax requirements.

\section*{EFFECT OF DEFERRED PAYMENT START DATE}

Quaker Chemical Corporation's benefit payment obligation outside the Qualified Plan and SRIP is only for the \$10,836 annual Social Security Bridge and the \(\$ 83,345\) Additional Payment reducing to \(\$ 19,228\) June 1, 1995. Thus, if you choose to defer receiving the Qualified Plan and SRIP benefits beyond June 1, 1995, as mentioned above, your total annual retirement benefit from Quaker and its benefit plans is \(\$ 10,836+\$ 19,228=\$ 30,064\) beginning June 1, 1995, reducing to \(\$ 19,228\) June \(1,1997\).

\section*{MEDICAL INSURANCE}

You and your family will continue to be covered under Quaker's Medical Insurance Plan -- including surgical, hospitalization, major medical, and dental coverage -- until such time when you turn 65 and are eligible to apply for Medicare benefits. At 65, you will receive medical benefits solely under the terms of the Quaker Retiree Medical Plan in effect December 31, 1993, based on (a) the assumption you are retiring at 65 and (b) the years of service you would have earned had your employment continued to age 65.

\section*{Long-TERM PERFORMANCE INCENTIVE PLAN}

You currently are the holder of stock options. Under the Long-Term Performance Incentive Plan approved in 1993, you are entitled to exercise such stock options for three (3) years after the effective date of your retirement (or your death if that should occur first). Stock options awarded under the Long-Term Performance Incentive Plan approved in 1983 shall be exercisable up to the expiration date set forth in the Stock Option Agreement. For Performance Units issued under the 1991 and 1993 programs, you will be eligible to receive a prorated portion of any payout generated by these

Mr. Ira R. Dolich
December 1, 1993
Page Four
plans. Except as described above, further participation in the Employee Stock Purchase Plan will end as of December 31, 1993.

\section*{OUTPLACEMENT ASSISTANCE}

Should you so choose, you will be provided executive outplacement assistance to include office space and all support required in your job search.

\section*{CONFIDENTIALITY}

As a condition of the offer contained in this letter, at all times hereafter, you will keep the terms, the amount, and the existence of this Letter Agreement completely confidential, and you will not hereafter disclose any information concerning this Letter Agreement to anyone except your immediate family, attorney, accountant, or tax advisor, or as otherwise required by law, provided that any such person agrees to keep said information confidential and not disclose it to others.

FULL AGREEMENT

This Letter Agreement sets forth the entire understanding between us and can be modified only in writing, signed by each of us. As used throughout, the term "Letter Agreement" refers to this entire document consisting of six (6) pages, including the release.

As consideration for our offer, you will be required to sign the following release which is in customary form.

Ira, please review the early retirement offer carefully. You may wish to consult independent advisors, including legal counsel, and we would encourage you to do so. Cliff or I would be pleased to discuss any questions you may have; however, should you elect not to assume the additional responsibilities we have discussed and, therefore, accept this package, I would need to have your signed agreement no later than twenty-one (21) days after the date of receipt of this letter.

Sincerely,
S. W. W. Lubsen

\section*{ACCEPTANCE:}

Ira R. Dolich
A. I, IRA R. DOLICH, in consideration of the promises in this letter of December 1, 1993, to which I am not otherwise entitled, do unconditionally release and forever discharge QUAKER CHEMICAL CORPORATION, its affiliated, subsidiary, and related companies, all of their past and present officers, directors, employees, partners, and agents and their respective heirs, executors, personal representatives, successors, and assigns (collectively hereafter "QUAKER"), from any and all causes of action, suits, damages, claims, judgments, debts, duties, accounts, bonds, warrants, contracts, agreements, interest, attorney fees, costs, and expenses whatsoever, in law or in equity, relating to or in connection with my employment or termination of employment by QUAKER, either directly or indirectly, whether known or unknown, for, upon, or by reason of any matter, cause or thing whatsoever, including, but not limited to, any wrongful termination claims, breach of contract claims, estoppel, claims, impairment of economic opportunity, interference with contractual relations, infliction of emotional harm, or any other tort claims, claims of discrimination, claims for benefits, claims for unfair labor practices, claims relating to my hire, employment, or termination of employment by QUAKER, as well as any claims which I may have arising under or in connection with any and all local, state, or federal ordinances, statutes, or common law. The only exclusion from this release provision is a claim that some term of this Letter Agreement has been violated.
B. Without limiting the scope of Paragraph A, above, of this release, I, IRA R. DOLICH, acknowledge that any right or claim for age discrimination which I may have arising under the Age Discrimination in Employment Act ("ADEA"), or any other law, whether known or unknown, arising out of my hire, employment, or termination of employment with QUAKER, up to and including the date of execution of this Letter Agreement, is hereby released and waived. I acknowledge that \(I\) am receiving consideration which is in addition to anything of value to which I otherwise would have been entitled.
C. I, IRA R. DOLICH, acknowledge that I was advised in writing to consult with an attorney before signing this Letter Agreement and that QUAKER advised me that I had twenty-one (21) calendar days within which to consider this Letter Agreement before signing it.
D. The waiver and release of my age discrimination claim does not become effective or enforceable until seven (7) days after this Letter Agreement is signed. I understand that I have seven (7) calendar days after executing this Letter Agreement within which to revoke this Letter Agreement. If the seventh day is a weekend or national holiday, I have until the next business day to revoke.
E. I, IRA R. DOLICH, ACKNOWLEDGE THAT I FULLY UNDERSTAND THE

TERMS OF THIS LETTER AGREEMENT INCLUDING THE RELEASE AND THAT I AM ENTERING INTO IT VOLUNTARILY WITHOUT ANY COERCION ON THE PART OF ANY PERSON AND THAT I WAS GIVEN ADEQUATE TIME TO CONSIDER ALL IMPLICATIONS AND TO FREELY AND FULLY CONSULT WITH AND SEEK THE ADVICE OF WHOMEVER I DEEMED APPROPRIATE.
F. I, IRA R. DOLICH, represent that I have filed no suits, charges, claims, or the like regarding my employment and/or its termination; and I agree that I will not do so at any time hereafter.

I HEREBY AGREE TO AND ACCEPT
THE EARLY RETIREMENT PACKAGE AND RELEASE:

Ira R. Dolich

Dated \(\qquad\)


\title{
Net income (loss) \$ \((1,758,000) \$ 12,098,000\) \$ 5,115,000
}
============ ============ ============

Per share data (Note 1):
Income (loss) per share before cumulative effect of change in accounting principle.
\(\$ 1.33\)
\$1. 20
Cumulative effect of change in accounting for postretirement benefits (Note 6)
(.19) 1.33

Dividends.............................. .60-1/2 . 57 . 53
(a) Restated for comparative purposes.

Year Ended December 31,

CASH FLOWS FROM OPERATING ACTIVITIES
Net income (loss).................................................
Adjustments to reconcile net income to net cas
provided by operating activities provided by operating activities

\section*{Depreciation}

Amortization
Equity in net income of associated companies
Minority interest in earnings of subsidiary
Deferred taxes.
Cumulative effect of change in accounting principle.
Deferred compensation and other
postretirement benefits.
Repositioning charges, net
Other.
Change in current assets and liabilities
Accounts receivable.
Inventories
Prepaid expenses (including taxes) and other current assets
Accounts payable and accrued liabilities
Estimated taxes on income

Net cash provided by operating activities
\$
(1,758, 000) \$ 12, 098, 000

6,545,000
1,021, 000
\((1,001,000)\)
348, 000
(491, 000)

254, 000
9,700, 000
(181, 000)
1,490, 000
444, 000
\((3,331,000)\)
4, 018, 000
(261, 000 )

16,797, 000

6,427,000
1,385, 000
\((1,328,000)\) 430, 000 76,000

427, 000
98, 000
82,000
1,352,000
621, 000
3, 047, 000
(983, 000)

23,732,000

5,188,000
1,554, 000
\((1,898,000)\)
402, 000
494, 000
5,675, 000
212, 000
512, 000
939, 000
1,369, 000
\((3,129,000)\)
\((6,378,000)\)
177,000
10, 232, 000

4,999, 000
860, 000
\((8,420,000)\)
\((2,500,000)\)

17,000
\((5,044,000)\)

2,629, 000
(234, 000)
\((4,768,000)\)
1,297,000
(151, 000)
\((1,227,000)\)
\((977,000)\)

2,984,000
18,049,000
\$21, 033, 000
===========
\$ 9,068, 000
1,988, 000

In conjunction with an acquisition in 1993, the company assumed \$1,295,000 in debt of which \(\$ 646,000\) was current.

\begin{tabular}{|c|c|c|}
\hline LIABILITIES AND SHAREHOLDERS' EQUITY & \multicolumn{2}{|l|}{-----------------} \\
\hline \multicolumn{3}{|l|}{Current liabilities} \\
\hline Short-term borrowings and current portions of long-term debt and capital leases (Note 7).................................... & \$ 4,953,000 & \$ 2,893,000 \\
\hline Accounts payable. & 18,117, 000 & 13,954,000 \\
\hline Dividends payable & 1,432,000 & 1,379,000 \\
\hline Accrued liabilities & & \\
\hline Compensation. & 5,251,000 & 5, 051, 000 \\
\hline Other (Note 2) & 12,476,000 & 4,130,000 \\
\hline Estimated taxes on income (Note 5) & 413,000 & 719,000 \\
\hline Total current liabilities & 42,642, 000 & 28,126,000 \\
\hline Long-term debt and capital leases (Note 7) & 16, 095, 000 & 18,604,000 \\
\hline Deferred taxes on income (Note 5). & 3,043, 000 & 3,302,000 \\
\hline Deferred foreign investment incentive benefits & 942,000 & 1,105,000 \\
\hline Accrued postretirement benefits (Note 6) & 8,968, 000 & 8,898,000 \\
\hline Other noncurrent liabilities (Note 2). & 5,898, 000 & 3,216,000 \\
\hline Total noncurrent liabilities & 34,946, 000 & 35,125, 000 \\
\hline & 77,588,000 & 63,251,000 \\
\hline \multicolumn{3}{|l|}{Commitments and contingencies (Notes 1 and 11)........................} \\
\hline Minority interest in equity of subsidiary (Note 1). & 2,014,000 & 1,720,000 \\
\hline \multicolumn{3}{|l|}{Shareholders' equity (Note 8)} \\
\hline Common stock, \(\$ 1\) par value; authorized 30,000,000 shares; issued (including treasury shares) 9,664,009 shares.... & 9,664, 000 & 9,664,000 \\
\hline Capital in excess of par value. & 529, 000 & 301, 000 \\
\hline Retained earnings. & 83,498, 000 & 90,834,000 \\
\hline Equity adjustment from foreign currency translation. & 3,577, 000 & 7,471,000 \\
\hline Treasury stock, shares held at cost; 1993-421,842, 1992-475,838. & \[
\begin{array}{r}
97,268,000 \\
5,885,000
\end{array}
\] & \[
\begin{array}{r}
108,270,000 \\
6,628,000
\end{array}
\] \\
\hline & 91,383, 000 & 101, 642,000 \\
\hline & \$170, 985, 000 & \$166, 613, 000 \\
\hline & \(=\) & ============ \\
\hline
\end{tabular}

\section*{NOTE 1--SIGNIFICANT ACCOUNTING POLICIES}

\section*{PRINCIPLES OF CONSOLIDATION}

All majority owned subsidiaries are included in the consolidated financial statements, with appropriate elimination of intercompany balances and transactions. The consolidated balance sheet includes total assets of \(\$ 79,651,000\) in 1993 and \(\$ 75,402,000\) in 1992 and total liabilities of \$19,221,000 in 1993 and \$14,377,000 in 1992 of international subsidiaries. The consolidated statement of operations includes net income of international subsidiaries of \$3,729,000 in 1993, \$9,391,000 in 1992 and \(\$ 7,812,000\) in 1991. Investments in associated (less than majority owned) companies are stated at the company's equity in their underlying net assets.

\section*{TRANSLATION OF FOREIGN CURRENCY}

Assets and liabilities of international subsidiaries and associated companies, except for Mexico and Venezuela prior to 1992, are translated into U.S. dollars at the respective rates of exchange prevailing at the end of the year. Income accounts are translated at average exchange rates prevailing during the year. Translation adjustments resulting from this process, except for Mexico and Venezuela prior to 1992, are recorded directly in shareholders' equity and will be included in income only upon sale or liquidation of the underlying investment.

\section*{CASH AND CASH EQUIVALENTS}

The company considers all highly liquid investments with a maturity of three months or less when purchased to be cash equivalents.

\section*{INVENTORIES}

Inventories of the parent company are valued at the lower of cost or market value, with cost determined using the last-in, first-out (LIFO) method. Inventories of subsidiaries are valued primarily at first-in, first-out cost, but not in excess of market value.

\section*{PROPERTY, PLANT AND EQUIPMENT}

Property, plant and equipment are recorded at cost, and capital leases are recorded at the present value of future minimum lease payments. Depreciation is computed using the straight-line method on an individual asset basis over the following estimated useful lives: buildings and improvements, 10 to 45 years; machinery and equipment, 3 to 15 years; and capital leases, remaining life of the lease. At December 31, 1993 and 1992, respectively, \$1,301,000 and \(\$ 727,000\) of leased equipment and accumulated depreciation thereon in the amount \(\$ 520,000\) in 1993 and \(\$ 214,000\) in 1992 are included in the property, plant and equipment accounts.

Expenditures for renewals and betterments which increase the estimated useful life or capacity of the assets are capitalized; expenditures for repairs and maintenance are charged to income.

EXCESS OF COST OVER NET ASSETS OF ACQUIRED COMPANIES AND OTHER NONCURRENT ASSETS

Excess of cost over net assets of acquired companies and other noncurrent assets consist primarily of intangibles arising from acquisitions. They are being amortized on a straight-line basis over periods of 5 to 40 years ( 5 to 20 years on acquisitions subsequent to 1991). At December 31, 1993 and 1992, accumulated amortization of the excess of cost over net assets of acquired companies amounted to \$1,621,000 and \$1,215,000, respectively.

\section*{PENSION AND POSTRETIREMENT BENEFIT PLANS}

The company's policy is to fund pension costs allowable for income tax purposes. See Note 6 for the cost of pension and postretirement benefits other than pensions.

\section*{REVENUE RECOGNITION}

Sales are recorded primarily when products are shipped to customers. Other income, principally license fees offset by miscellaneous expenses, is recorded when earned. License fees recorded by the company from its nonconsolidated international associates amounted to \$1,178,000, \$1,135,000 and \$1,313,000 in 1993, 1992 and 1991, respectively. Fees received from independent licensees are immaterial.
sponsored research and development expenses during 1993, 1992 and 1991 were \$11,037,000, \$11,134,000, and \$10,000,000, respectively.

\section*{EARNINGS PER SHARE}

Earnings per share calculations are based on the weighted average number of shares outstanding during the year.

CONCENTRATION OF CREDIT RISK

Financial instruments, which potentially subject the company to a concentration of credit risk, principally consist of cash equivalents and of short-term investments and trade receivables. The company invests temporary and excess cash in money market securities and instruments in U.S. and foreign commercial banks having maturities typically within 90 days. The company has not experienced losses from the aforementioned investments.

The company sells its principal products to most of the major steel, automotive and related companies around the world. The company maintains allowances for potential credit losses. Historically, the company has experienced some losses related to bankruptcy proceedings of major steel companies in the U.S.

\section*{NOTE 2--REPOSITIONING CHARGES}

During 1993, the company implemented a broad scope program of changes focused on reducing the company's operating costs to compete more effectively in today's environment. This program includes consolidation and closure of certain of the company's facilities, selected workforce reductions, and planned divestitures of nonstrategic business operations. The consolidated statement of operations for 1993 includes charges before income taxes of \$11,900,000 (\$7,854,000 after tax, or \(\$ .85\) per share) relating to this program. Of the total, \(\$ 5,200,000\) relates to the cost of the workforce reductions. The remaining \(\$ 6,700,000\) is to provide for the closure of a manufacturing facility in Pomona, California, consolidation of European manufacturing operations, and the divestiture of nonstrategic business operations. As of December 31, 1993, \$7,600,000 and \$2,100,000 remained in accrued liabilities and other noncurrent liabilities, respectively. Of the \$7,600,000, approximately \$3,700,000 represents anticipated cash outlays in 1994.

\section*{NOTE 3--ASSOCIATED COMPANIES}

Summarized financial information of the associated companies (less than majority owned), in the aggregate, for 1993, 1992 and 1991 is as follows:
\begin{tabular}{|c|c|c|c|}
\hline \multirow[t]{2}{*}{} & \multicolumn{3}{|l|}{(Dollars in thousands)} \\
\hline & 1993 & 1992(a) & 91(a) \\
\hline Current assets & \$22,515 & \$21, 841 & \$30, 173 \\
\hline Noncurrent assets & 2,643 & 2, 238 & 5,897 \\
\hline Current liabilities & 12,888 & 11,432 & 13,115 \\
\hline Noncurrent liabilities & 950 & 768 & 1,948 \\
\hline Net sales. & \$52, 028 & \$44, 244 & \$61,471 \\
\hline Operating income (b) & 5,654 & 5,689 & 7,866 \\
\hline Income before taxes. & 4,287 & 5,183 & 6,966 \\
\hline Net income.... & 2,165 & 2,676 & 3,999 \\
\hline
\end{tabular}
(a) Restated for comparative purposes.
(b) Net sales, less costs and expenses

Operations of Alpine Labs are included since its formation on November 1, 1990 to February 12, 1992 when it became a wholly-owned subsidiary. Quaker Chemical, S.A. is excluded from the summary after January 1, 1992 when it became a wholly-owned subsidiary (see Note 10).

\section*{NOTE 4--INVENTORIES}

Inventories valued under the LIFO method amounted to \$4,879,000 and \(\$ 4,858,000\) at December 31, 1993 and 1992, respectively. The estimated replacement costs for these inventories using the first-in, first-out method were approximately \$6,115,000 and \$6,080,000, respectively.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS, continued
NOTE 5--TAXES ON INCOME
Taxes on income included in the consolidated statement of operations consist of the following:


Total deferred tax assets and liabilities are comprised of the following at December 31:
\begin{tabular}{|c|c|c|c|}
\hline \multicolumn{2}{|c|}{1993} & \multicolumn{2}{|c|}{1992} \\
\hline CURRENT & DEFERRED & Current & Deferred \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline Retirement benefits & \$ 212,000 & & \$326, 000 & \\
\hline Postretirement benefits & & \$3, 049, 000 & & \$3, 025, 000 \\
\hline Supplemental retirement benefits. & & 530,000 & & 483, 000 \\
\hline Repositioning charges & 2,252,000 & 726,000 & & \\
\hline Long-term performance incentives. & & & & 189, 000 \\
\hline Other & 393,000 & 483,000 & 119,000 & 661, 000 \\
\hline Total deferred tax assets & \$2,857, 000 & \$4,788, 000 & \$445, 000 & \$4,358, 000 \\
\hline Depreciation. & & \$2,844, 000 & & \$2, 839, 000 \\
\hline Other. & & 199,000 & & 463, 000 \\
\hline Total deferred tax liabilities. & & \$3, 043, 000 & & \$3,302, 000 \\
\hline
\end{tabular}

The following is a reconciliation of income taxes at the Federal statutory rate with income taxes recorded by the company:
\begin{tabular}{|c|c|c|c|}
\hline Federal statutory tax rate & \$(740, 000) & \$6,170, 000 & \$5, 233, 000 \\
\hline State income tax provisions, net. & 98, 000 & 137, 000 & 162,000 \\
\hline Foreign taxes on earnings at rates different than the Federal statutory rate. & 723,000 & 368,000 & 469, 000 \\
\hline Miscellaneous items, net. & 153, 000 & 272,000 & 234, 000 \\
\hline Taxes on income. & \$ 234,000 & \$6,947, 000 & \$6, 098, 000 \\
\hline
\end{tabular}

United States income taxes have not been provided on the undistributed earnings of international subsidiaries since it is the company's intention to continue to reinvest these earnings abroad for working capital and expansion needs. The amount of such undistributed earnings at December 31, 1993 was approximately \(\$ 47,000,000\). Any income tax liability which might result from ultimate remittance of these earnings is expected to be substantially offset by foreign tax credits. Effective January 1, 1991, the company adopted the provisions of Statement of Financial Accounting Standards No. 109 (SFAS 109) "Accounting for Income Taxes." The cumulative effect of adoption of SFAS 109 was not material.

\section*{NOTE 6--EMPLOYEE BENEFITS}

\section*{PENSION PLANS}

The company maintains various noncontributory retirement plans covering substantially all of the employees of the parent company and its domestic subsidiaries. The benefits for these plans are based primarily on years of service and employees' pay near retirement.

The plans of international subsidiaries are, for the most part, either fully insured or integrated with the local governments' plans and are not subject to the provisions of the Statement of Financial Accounting Standards No. 87 (SFAS 87), "Employers' Accounting for Pensions."

The pension costs for all plans include the following components:
\begin{tabular}{|c|c|c|c|c|c|}
\hline Service cost--benefits earned during the period & 809,000 & & 834,000 & & 791,000 \\
\hline Interest cost on projected benefit obligation. & 2,335,000 & & 2,251,000 & & 2,158,000 \\
\hline Return on plan assets & & & & & \\
\hline --actual & (2,820, 000) & & \((3,690,000)\) & & \((4,551,000)\) \\
\hline --deferred gain & 98,000 & & 1,254,000 & & 2,426,000 \\
\hline Other amortization--net & \((110,000)\) & & \((103,000)\) & & \((111,000)\) \\
\hline Net pension costs of plans subject to SFAS 87. & 312,000 & & 546,000 & & 713,000 \\
\hline Pension costs of plans not subject to SFAS 87. & 904,000 & & 872,000 & & 828,000 \\
\hline Total pension costs. & 1,216,000 & & 1,418,000 & & 1,541,000 \\
\hline
\end{tabular}

The following table summarizes the funded status of the company's defined benefit pension plans and the related amounts recognized in the company's consolidated balance sheets as of December 31:
\begin{tabular}{|c|c|c|}
\hline & 1993 & 1992 \\
\hline \multicolumn{3}{|l|}{Actuarial present value of:} \\
\hline Vested benefit obligation. & \$29,542,000 & \$26,705, 000 \\
\hline Accumulated benefit obligation. & \$29, 729, 000 & \$26, 831, 000 \\
\hline Projected benefit obligation. & \$32,543,000 & \$30,025,000 \\
\hline Plan assets at market value. & 30,677, 000 & 29,143,000 \\
\hline Plan assets less than projected benefit obligation. & (1,866,000) & \((882,000)\) \\
\hline Unrecognized cumulative net (gain) loss.............................. & 222,000 & \((933,000)\) \\
\hline Unrecognized prior service cost related to adjustment of retirees' benefits and benefit update................................ & 1,963,000 & 2,105,000 \\
\hline Unrecognized net gain at date of initial application of SFAS 87.. & \((2,425,000)\) & ( \(2,669,000\) ) \\
\hline Accrued pension costs. & \$(2,106, 000) & \$(2,379, 000) \\
\hline
\end{tabular}

The significant assumptions for the plans were as follows:
\begin{tabular}{|c|c|c|c|}
\hline & 1993 & 1992 & 1991 \\
\hline Discount rate for projected benefit obligation. & 7. \(5 \%\) & 8.0\% & 8.25\% \\
\hline Assumed long-term rates of compensation increases & 5.5\% & 6.0\% & 6.5\% \\
\hline Long-term rate of return on plan assets & 9.5\% & 9.5\% & 9.5\% \\
\hline
\end{tabular}

\section*{Exhibit 13 Page}

9

\section*{PROFIT SHARING PLAN}

The parent company also maintains a qualified profit sharing plan covering all employees other than those who are compensated on a commission basis. No contributions were made in 1993. Contributions for 1992 and 1991 were \$310,000 and \$520,000, respectively.

\section*{OTHER POSTRETIREMENT AND POSTEMPLOYMENT BENEFITS}

Effective January 1, 1991, the company adopted the provisions of Statement of Financial Accounting Standards No. 106 (SFAS 106), "Employers' Accounting for Postretirement Benefits Other Than Pensions," for its U.S. postretirement benefit plans. The plans provide medical and life insurance benefits for certain retired employees of the parent company. These benefits vary based on age, years of service and retirement date. Coverage of health benefits under the plan may require the retiree to make payments where the insured equivalent costs exceed the company's fixed contribution. The cost of the life insurance benefit plan, which provides a flat \(\$ 2,000\) per retiree, is noncontributory. Both the medical and life insurance plans are currently unfunded.

The components of periodic postretirement benefit costs for 1993, 1992 and 1991 are as follows:

Service cost--benefits attributed to service during the period
\begin{tabular}{|c|c|c|}
\hline \$ 79,000 & \$ 96,000 & \$ 92,000 \\
\hline 650,000 & 664, 000 & 683, 000 \\
\hline \$729, 000 & \$760, 000 & \$775, 000 \\
\hline
\end{tabular}

The funded status of the plan at December 31, 1993 and 1992 is as follows:
\begin{tabular}{|c|c|c|}
\hline & 1993 & 1992 \\
\hline Retirees & \$7,218, 000 & \$6,824, 000 \\
\hline Fully eligible active participants & 88, 000 & 100,000 \\
\hline Other participants & 1,712,000 & 1,952,000 \\
\hline Total accumulated postretirement benefit obligation. & 9,018, 000 & 8,876,000 \\
\hline Unrecognized actuarial gain (loss) & (50, 000) & 22,000 \\
\hline \multicolumn{3}{|l|}{Net unfunded post-retirement benefit} \\
\hline liability..... & \$8, 968, 000 & \$8,898, 000 \\
\hline
\end{tabular}

The discount rate used in determining the accumulated postretirement benefit obligation is 7.5\%.

In valuing costs and liabilities, different health care cost trend rates were used for retirees under and over age 65 . The average assumed rate for medical benefits for all retirees was \(8.9 \%\) in 1993--gradually decreasing to \(5.5 \%\) over 13 years. A \(1 \%\) increase in the health care cost trend rate would increase aggregate service cost for 1993 by \(\$ 46,000\) and the accumulated postretirement benefit obligation as of December 31, 1993 by \(\$ 656,000\).

The parent company maintains a plan under which the company will provide, in certain cases, supplemental retirement benefits to officers of the parent company. Benefits payable under the plan are based on a combination of years of service and existing post-retirement benefits. Included in total pension costs are charges of \(\$ 270,000\) in 1993, \(\$ 330,000\) in 1992 and \(\$ 252,000\) in 1991, representing the annual accrued benefits under this plan.

Effective January 1, 1993, the company adopted the provisions of Statement of Financial Accounting Standards No. 112 (SFAS 112), "Employer's Accounting for Postemployment Benefits." The cumulative effect of adoption of SFAS 112 was not material.

\section*{NOTE 7--DEBT AND LEASE OBLIGATIONS}

Long-term debt at December 31, consisted of the following:
demand bonds maturing 2014
\(\$ 5,000,000 \quad \$ 5,000,000\)
\begin{tabular}{|c|c|c|}
\hline 6.64\% note payable due July 8, 1997 & 13,333, 000 & 15,000,000 \\
\hline Capital lease obligations & 789,000 & 526,000 \\
\hline Other notes payable due 1994 to 1998, interest ranges from 3.7\% to 10.8\% & 758,000 & \\
\hline & 19,880,000 & 20,526, 000 \\
\hline Less current portion. & 3,785, 000 & 1,922,000 \\
\hline & \$16, 095, 000 & \$18, 604, 000 \\
\hline
\end{tabular}

In 1992, the company entered into an intermediate-term private placement of \(\$ 15,000,000\) of \(6.64 \%\) notes payable requiring semiannual principal payments of \(\$ 1,667,000\) beginning July 8, 1993 and continuing through 1997. The long-term financing agreements require, among other things, the maintenance of working capital and net worth ratios. The company is in compliance with these requirements.

During the next five years, payments on long-term debt are due as follows: \$3,785,000 in 1994; \$3,748,000 in 1995; \$3,514,000 in 1996; \$3,392,000 in 1997; and \$441,000 in 1998.

At December 31, 1993, a non-U.S. subsidiary of the company had an outstanding note payable to a bank in the amount of \(\$ 1,168,000\) maturing in March 1994. The interest rate on the note was \(10.1 \%\). The parent company also has available a \(\$ 10,000,000\) unsecured line of credit. Any borrowings under this line of credit will be at the bank's best rate of interest in effect at the time. There were no borrowings against the line of credit during 1993 and 1992.

At December 31, 1993 and 1992, the value at which the financial instruments are recorded approximated their fair market value.

An analysis of the changes in consolidated shareholders' equity is as follows:
(Dollars in thousands)


The treasury stock is held for use by the various company plans which require the issuance of the company's common stock.

The company is authorized to issue 10,000,000 shares of preferred stock, \(\$ 1.00\) par value, subject to approval by the Board of Directors. The Board of Directors may designate one or more series of preferred stock and the number of shares, rights, preferences and limitations of each series. None of the preferred stock has been issued.

Under provisions of a stock purchase plan, which permits employees to purchase shares of stock at \(85 \%\) of the market value, 38,399 shares and 35,277 shares were issued from the treasury in 1993 and 1992, respectively. In 1991, 33,568 shares were issued from the treasury, and 2,413 shares were purchased in the open market. The number of shares that may be purchased by an employee in any one year is limited by factors dependent upon the market value of the stock and the employee's base salary. At December 31, 1993,

246,925 shares may be issued under the plan.
The company has a long-term performance incentive plan for key employees which provides for the granting of options to purchase stock at prices not less than market value on the date of the grant. Options are exercisable one year after the date of the grant for a period of time determined by the company not to exceed ten years from the date of the grant.

The table below summarizes transactions in the plan during 1993, 1992 and 1991.
\begin{tabular}{lc} 
NUMBER OF OPTION PRICE Number of Option price Number of Option price \\
SHARES & PER SHARE shares per share shares per share
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Options outstanding at January 1, & 445,776 & \$11.00-\$19.75 & 571,535 & \$11.00-\$19.53 & 465,601 & \$11.00-\$15.91 \\
\hline Options granted. & 206,444 & \$21.00-\$24.20 & 2,598 & \$17.75-\$19.75 & 220, 000 & \$17.75-\$19.53 \\
\hline Options exercised & \((13,686)\) & \$12.50-\$19.75 & \((128,357)\) & \$11.00-\$17.75 & \((114,066)\) & \$11.00-\$14.50 \\
\hline Options outstanding at December 31,. & 638,534 & \$11.00-\$24.20 & 445,776 & \$11.00-\$19.75 & 571,535 & \$11.00-\$19.53 \\
\hline Options exercisable at December 31,. & 432,090 & \$11.00-\$19.75 & 445,228 & \$11.00-\$19.75 & 351,535 & \$11.00-\$15.91 \\
\hline
\end{tabular}

Options were exercised for cash and the surrender of \(5,739,41,770\) and 46,402 previously outstanding shares in 1993, 1992 and 1991, respectively, resulting in the net issuance of 7,947 shares in 1993, 86,587 shares in 1992 and 67,664 shares in 1991. Options to purchase 793,556 shares were available at December 31, 1993 for future grant.

The plan also provides for the issuance of performance incentive units, the value of which is determined based on operating results over a four-year period. The effect on operations of the change in the estimated value of incentive units during the year was nil in 1993 and 1991 and a credit of \$292,000 in 1992.

On February 7, 1990, the company declared a dividend distribution to shareholders of record on February 20, 1990 which, after giving effect for the three-for-two stock split effective July 30, 1990, was in the form of two stock purchase rights (the "Rights") for each three shares of common stock outstanding. The Rights become exercisable if a person or group acquires or announces a tender offer which would result in such person's acquisition of \(20 \%\) or more of the company's common stock. The Rights also become exercisable if the Board of Directors declares a person to be an "adverse person" and that person has obtained not less than \(10 \%\) of the outstanding shares of the company's common stock.

Each Right, when exercisable, entitles the registered holder to purchase one one-hundredth of a share of a newly authorized Series A preferred stock at an exercise price of \(\$ 72\) subject to certain anti-dilution adjustments. In addition, if a person or group acquires \(20 \%\) or more of the outstanding shares of the company's common stock, without first obtaining Board of Directors' approval, as required by the terms of the Rights Agreement, or a person is declared an adverse person, each Right will then entitle its holder (other than such persons or members of any such group) to purchase, at the Right's then current exercise price, a number of shares of the company's common stock having a total market value of twice the Right's exercise price.

In the event that the company merges with or transfers \(50 \%\) or more of its assets or earnings to any entity after the Rights become exercisable, holders of Rights may purchase, at the Right's then current exercise price, common stock of the acquiring entity having a value equal to twice the Right's exercise price. In addition, at any time after a person acquires \(20 \%\) of the outstanding shares of common stock and prior to the acquisition by such person of \(50 \%\) or more of the outstanding shares of common stock, the company may exchange the Rights (other than the Rights which have become null and void), in whole or in part, at an exchange ratio of one share of common stock or equivalent share of preferred stock, per Right.

The Board of Directors can redeem the Rights for \(\$ .01\) per Right at any time prior to the acquisition by a person or group of beneficial ownership of \(20 \%\) or more of the company's common stock or a person being declared an
adverse person. Until a Right is exercised, the holder thereof will have no rights as a shareholder of the company, including without limitation, the right to vote or to receive dividends. Unless earlier redeemed or exchanged, the Rights will expire on February 20, 2000.

The company operates primarily in one business segment -- the manufacture and sale of industrial chemical specialty products. The company has both United States and international operations which are summarized for 1993, 1992 and 1991 as follows:
(Dollars in thousands)
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline \multirow[t]{3}{*}{} & \multirow[b]{3}{*}{United States} & \multirow[t]{3}{*}{European Economic Community} & \multicolumn{4}{|c|}{Consolidated} \\
\hline & & & & & & \\
\hline & & & Other & 1993 & 1992 & 1991 \\
\hline \multicolumn{7}{|l|}{Net sales to unaffiliated customers:} \\
\hline 1993 & \$110, 067 & \$74, 090 & \$10, 847 & \$195, 004 & & \\
\hline 1992. & 118,831 & 83,276 & 10,384 & & \$212,491 & \\
\hline 1991. & 114,988 & 65,888 & 10,175 & & & \$191, 051 \\
\hline \multicolumn{7}{|l|}{Operating profit:} \\
\hline 1993. & 5,164 & 10,745 & 652 & \$ 16,561 & & \\
\hline 1992. & 7,196 & 16,025 & 1,368 & & \$ 24,589 & \\
\hline 1991. & 6,754 & 13,262 & 1,419 & & & \$ 21,435 \\
\hline Repositioning charges & & & & \((11,900)\) & & \\
\hline Nonoperating expenses & & & & \((6,838)\) & \((6,442)\) & \((6,043)\) \\
\hline \multicolumn{7}{|l|}{Minority interests and equity in net} \\
\hline \multicolumn{7}{|l|}{Income (loss) before taxes and cumulative effect of change in accounting} \\
\hline Taxes on income. & & & & 234 & 6,947 & 6,098 \\
\hline Cumulative effect of change in accounting principle...................... & & & & & & \((5,675)\) \\
\hline Net income (loss) & & & & \$ \((1,758)\) & \$ 12, 098 & \$ 5,115 \\
\hline \multicolumn{7}{|l|}{Identifiable assets:} \\
\hline 1993. & 70,889 & 55,427 & 6,988 & \$133, 304 & & \\
\hline 1992. & 82,727 & 56,372 & 4,994 & & \$144, 093 & \\
\hline 1991. & 75,793 & 49,547 & 5,041 & & & \$130, 381 \\
\hline Investments in associated companies. & & & & 6,224 & 6,001 & 9,835 \\
\hline Nonoperating assets. & & & & 31,457 & 16,519 & 18,905 \\
\hline Total assets. & & & & \$170,985 & \$166, 613 & \$159, 121 \\
\hline
\end{tabular}

Transfers between geographic areas are not material. Operating profit is comprised of revenue less related costs and expenses, excluding dividends and license fees paid to the parent company. Nonoperating expenses primarily consist of general corporate expenses identified as not being a cost of operations, interest expense, interest income and license fees from nonconsolidated associates. Nonoperating assets, consisting primarily of cash equivalents and short-term investments, have not been included with identifiable assets. No single customer accounted for \(10 \%\) of net sales in 1993, 1992, and 1991. A substantial portion of consolidated sales on a global basis are made to the steel production market (see Classification of Products by Markets Served on page 27 of this report), and as a result, accounts receivable generally reflect a similar distribution of receivables from customers in these markets.

\section*{NOTE 10--BUSINESS ACQUISITIONS AND DIVESTITURES}

In 1994, the company entered into an agreement for the creation of a joint venture which is expected to enhance the Total Fluid Management (TFM) service capabilities of the company. An initial cash investment of approximately \(\$ 3,000,000\) has been made with additional investments expected based on the growth of the venture.

Effective May 14, 1993, the company acquired for \$10,693,000 in cash \(100 \%\) of the common stock of Raffineries de l'Ile de France (RIF), a metalworking chemical specialty business in France. The results of the operations of RIF are included in the consolidated financial statements from that date. The effect on the consolidated statements has not been material.

As part of a plan to exit from the petroleum production chemicals market, effective February 12, 1992, the company acquired for approximately \(\$ 4,450,000\) in cash the remaining \(57.5 \%\) interest in Alpine Labs, making it wholly owned by the company. The results of operations, which have not been material, are included in the consolidated financial statements from that date. Pursuant to the plan noted above, effective July 27,1993 , the company completed the sale of its petroleum production chemical operations' assets, the principal component of which was the SULFA-SCRUB(R) patents and technology, to the Petrolite Corporation for \(\$ 6,500,000\) in cash, \(\$ 2,000,000\) due within three years and future royalty payments. In addition, the agreement of sale provides that the Petrolite Corporation grant back to the company a license to sell products incorporating the technology in certain markets not serviced by the Petrolite Corporation. The effect of the sale on the consolidated statements was not material.

Effective January 1, 1992, the company acquired for \(\$ 8,600,000\) in cash \(50 \%\) of the common stock of Quaker Chemical, S.A. in Spain making it a wholly-owned subsidiary. The results of operations of Quaker Chemical, S.A. are included in the consolidated financial statements from that date. The effect on the consolidated statements has not been material.

\section*{NOTE 11--COMMITMENTS AND CONTINGENCIES}

A wholly-owned subsidiary of the company is a co-defendant in claims filed by multiple claimants alleging injury due to exposure to asbestos. The company has reached a settlement with a group of these claimants and has petitioned the courts for a declaratory judgement against one of its insurance carriers for certain coverage which is in dispute. The company believes that the potential uninsured liability associated with this action is approximately \$1,200, 000

\section*{REPORT OF INDEPENDENT ACCOUNTANTS}

\section*{TO THE SHAREHOLDERS AND BOARD OF DIRECTORS}

OF QUAKER CHEMICAL CORPORATION
In our opinion, the accompanying consolidated balance sheet and the related consolidated statements of operations and of cash flows present fairly, in all material respects, the financial position of Quaker Chemical Corporation (the "Company") and its subsidiaries at December 31, 1993 and 1992, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 1993, in conformity with generally accepted accounting principles. These financial statements are the responsibility of the Company's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with generally accepted auditing standards which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for the opinion expressed above.

As discussed in Notes 5 and 6, the Company changed its methods of accounting for income taxes and postretirement benefits other than pensions in 1991.

PRICE WATERHOUSE

CLASSIFICATION OF PRODUCTS BY MARKETS SERVED (UNAUDITED)
Consolidated net sales comprise chemical specialty and other products classified by markets served as follows:
(Dollars in thousands)
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline & \multicolumn{2}{|l|}{1993} & \multicolumn{3}{|c|}{1992} & \multicolumn{3}{|c|}{1991} & \multicolumn{3}{|c|}{1990} & \multicolumn{3}{|c|}{1989} \\
\hline Steel production. & \$ 89, 255 & 46\% & \$ & 94,483 & 44\% & \$ & 78,357 & 41\% & \$ & 88,447 & 44\% & \$ & 78,230 & 43\% \\
\hline Metalworking & 57,826 & 30 & & 58,719 & 28 & & 51,106 & 27 & & 49,916 & 25 & & 40,298 & 22 \\
\hline Paper production & 12,169 & 6 & & 15, 042 & 7 & & 16,760 & 9 & & 22,016 & 11 & & 21,546 & 12 \\
\hline Other. & 35,754 & 18 & & 44,247 & 21 & & 44,828 & 23 & & 41,095 & 20 & & 41,586 & 23 \\
\hline & \$195, 004 & 100\% & & \$212,491 & 100\% & & 91, 051 & 100\% & & 21,474 & 100\% & & 81,660 & 100\% \\
\hline
\end{tabular}

Information on Quaker's markets appear on the inside front cover of this report

QUARTERLY RESULTS (UNAUDITED)
(Dollars in thousands, except per share figures)
\begin{tabular}{|c|c|c|c|c|c|}
\hline & First & Second & Third & Fourth & \\
\hline \multicolumn{6}{|l|}{1993} \\
\hline NET SALES. & \$48,361 & \$51,343 & \$48,441 & \$46,859 & (5) \\
\hline OPERATING INCOME (LOSS) (1 AND 6). & 3,214 & \((1,268)\) & 739 & \((6,192)\) & (5) \\
\hline NET INCOME (LOSS). & 2,724 & (449) & 730 & \((4,763)\) & \\
\hline NET INCOME (LOSS) PER SHARE (3). & \$. 30 & \$(.05) & \$. 08 & \$(.52) & \\
\hline \multicolumn{6}{|l|}{1992} \\
\hline Net sales & \$54, 850 & \$55, 853 & \$54, 057 & \$47, 731 & (5) \\
\hline Operating income (1 and 2) & 5,279 & 4,769 & 4,592 & 2,147 & (5) \\
\hline Net income. & 3,710 & 3,322 & 3,204 & 1,862 & \\
\hline Net income per share (3) & \$. 41 & \$. 37 & \$. 35 & \$. 20 & \\
\hline \multicolumn{6}{|l|}{1991 (4)} \\
\hline Net sales & \$46,977 & \$49,459 & \$48,759 & \$45, 856 & \\
\hline Operating income (1 and 2) & 3,872 & 4,532 & 3,694 & 1,864 & \\
\hline Income before cumulative effect of. change in accounting principle.. & 3,256 & 3,162 & 2,705 & 1,667 & \\
\hline \multicolumn{6}{|l|}{```
Cumulative effect of change in
    accounting for postretirement
    benefits......................... (5,675)
```} \\
\hline Net income (loss).................. & \((2,419)\) & 3,162 & 2,705 & 1,667 & \\
\hline Income per share before cumulative effect of change in accounting principle. & \$ . 36 & \$. 35 & \$. 30 & \$. 19 & \\
\hline \multicolumn{6}{|l|}{Cumulative per share effect of change in accounting for} \\
\hline Net income (loss) per share (3). & \$(.27) & \$. 35 & \$. 30 & \$. 19 & \\
\hline
\end{tabular}
(1) Net sales, less costs and expenses
(2) Restated for comparative purposes.
(3) Based on weighted average number of shares outstanding.
(4) Restated first, second and third quarters to reflect adoption of SFAS 106 effective January 1, 1991 (see Note 6 to the Consolidated Financial Statements).
(5) See Operations section of Management's Discussion and Analysis of Financial Condition and Results of Operations on pages 30 and 31 of this report.
(6) The second and fourth quarters include repositioning charges of \(\$ 3,500\) and \$8,400, respectively.

During the past two years, the common stock of the company has been traded in the Nasdaq National Market at the price ranges indicated below, and the following quarterly dividends per share have been declared as indicated:
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline \multirow[t]{3}{*}{} & \multicolumn{4}{|c|}{Range of NASDAQ System Quotations} & \multicolumn{2}{|r|}{\multirow[b]{2}{*}{Dividends Declared}} \\
\hline & \multicolumn{2}{|c|}{1993} & \multicolumn{2}{|c|}{1992} & & \\
\hline & HIGH & LOW & High & Low & 1993 & 1992 \\
\hline First quarter & \$24-5/8 & \$20-3/4 & \$22-1/4 & \$18-3/4 & \$. 15 & \$. 14 \\
\hline Second quarter & 23 & 17-3/4 & 26 & 21 & . 15 & . 14 \\
\hline Third quarter & 20 & 16-1/2 & 24-3/4 & 19-1/2 & . 15 & . 14 \\
\hline Fourth quarter & 18-1/2 & 14-1/4 & 23-1/2 & 19-3/4 & . \(15-1 / 2\) & . 15 \\
\hline
\end{tabular}

As of January 15, 1994, there were 1,044 shareholders of record of the company's common stock, \(\$ 1\) par value, its only outstanding class of equity securities

COPIES OF THE COMPANY'S FORM 10-K FOR THE YEAR ENDED DECEMBER 31, 1993 AS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION WILL BE PROVIDED WITHOUT CHARGE ON REQUEST TO QUAKER CHEMICAL CORPORATION, ATTENTION KARL H. SPAETH, VICE PRESIDENT AND CORPORATE SECRETARY, CONSHOHOCKEN, PA 19428
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline & 1993(1) & 1992 & 1991 & 1990 & 1989 & 1984 \\
\hline SUMMARY OF OPERATIONS & & & & & & \\
\hline Net sales & \$195, 004 & \$212,491 & \$191, 051 & \$201, 474 & \$181, 660 & \$115, 813 \\
\hline Income (loss) before taxes and cumulative effect of change in accounting & & & & & & \\
\hline principle. & \((1,524)\) & 19,045 & 16,888 & 22,580 & 19,647 & 12,355 \\
\hline Cumulative effect of change in accounting for postretirement benefits.. & & & \((5,675)\) & & & \\
\hline Net income (loss). & \((1,758)\) & 12,098 & 5,115 & 14,106 & 12,840 & 7,289 \\
\hline Per share (2) & & & & & & \\
\hline Income (loss) before cumulative effect of change in accounting principle........ & (.19) & 1.33 & 1.20 & 1.51 & 1.35 & . 70 \\
\hline Cumulative effect of change in accounting for postretirement benefits. & & & (.63) & & & \\
\hline Net income (loss) & (.19) & 1.33 & . 57 & 1.51 & 1.35 & . 70 \\
\hline Dividends & . \(60-1 / 2\) & . 57 & . 53 & . 47 & . 41 & . 23 \\
\hline FINANCIAL POSITION & & & & & & \\
\hline Current assets & 84,387 & 85,567 & 82,725 & 84,833 & 75,427 & 45,588 \\
\hline Current liabilities & 42,642 & 28,126 & 36,592 & 40,342 & 27,848 & 14,352 \\
\hline Working capital & 41,745 & 57,441 & 46,133 & 44,491 & 47,579 & 31, 236 \\
\hline Property, plant and equipment, net. & 56,551 & 52,179 & 48,661 & 46,315 & 36,539 & 18,567 \\
\hline Total assets & 170,985 & 166,613 & 159,121 & 152,408 & 131,430 & 78,616 \\
\hline Long-term debt and capital leases. & 16,095 & 18,604 & 5,219 & 5,453 & 5,665 & 9,565 \\
\hline Shareholders' equity. & 91,383 & 101, 642 & 98,898 & 99,113 & 90,440 & 49,104 \\
\hline OTHER DATA & & & & & & \\
\hline Current ratio & 2.0/1 & 3.0/1 & 2.3/1 & 2.1/1 & 2.7/1 & 3.2/1 \\
\hline Capital expenditures (3). & 8,960 & 7,226 & 8,420 & 12,663 & 7,553 & 3,547 \\
\hline Net income (loss) as a \% of net sales (6).................... & (0.9)\% & 5.7\% & 5.6\% & 7.0\% & 7.1\% & 6.3\% \\
\hline Return on average shareholders' equity (6)..................... & (1.8)\% & 12.1\% & 10.9\% & 14.9\% & 14.8\% & 15.2\% \\
\hline Shareholders' equity per share at end of year (4)............ & 9.89 & 11.06 & 10.95 & 11.11 & 9.55 & 4.73 \\
\hline Common stock price range (5): & & & & & & \\
\hline High & 24-5/8 & 26 & 22-1/4 & 19-1/4 & 15-5/8 & 9-1/2 \\
\hline Low. & 14-1/4 & 18-3/4 & 15 & 12 & 12-1/2 & 6-3/4 \\
\hline Number of shares outstanding at end of year (4).................. & 9,242 & 9,188 & 9,028 & 8,921 & 9,473 & 10,386 \\
\hline Number of employees at end of year. & 1,006 & 972 & 1,027 & 1,080 & 983 & 904 \\
\hline
\end{tabular}
(1) The results of operations for 1993 include net repositioning charges of \(\$ 7,854\) ( \(\$ 0.85\) per share). Excluding these charges, net income for 1993 was \(\$ 6,096\) ( \(\$ 0.66\) per share).
(2) Based on the weighted average shares outstanding, giving retroactive effect to a three-for-two split in 1990 and a two-for-one split in 1985.
(3) Capital expenditures prior to 1986 are stated net of dispositions.
(4) Based on the shares outstanding at year end, giving retroactive effect to a three-for-two split in 1990 and a two-for-one split in 1985.
(5) Restated to give retroactive effect to a three-for-two split in 1990 and a two-for-one split in 1985.
(6) Calculated for 1991 using \(\$ 10,790\) which is the net income before the cumulative effect of change in accounting principle.

\section*{LIQUIDITY AND CAPITAL RESOURCES}

In spite of lower operating results experienced in 1993, the company remains strong in its ability to generate adequate cash to meet the needs of current operations and to fund programs for future growth and expansion. Major sources and uses of cash during 1993 included: a cash receipt of \(\$ 6.5\) million related to the sale of certain of the company's petroleum production chemical operations assets, the principal component of which was the SULFA-SCRUB(R) patents and technology, effectively completing the company's planned exit from the petroleum production chemicals market; the purchase of Raffineries de l'Ile de France (RIF), a metalworking chemical specialty business in France, for \(\$ 10.7\) million; and \(\$ 9.0\) million in expenditures for additions to property, plant and equipment. These items, along with lower regular operating activities, were the principal reasons for the decrease of \(\$ 6.3\) million in the company's net cash position (cash and cash equivalents plus short-term investments less short-term borrowings and current portion of long-term debt and capital leases) to \(\$ 15.3\) million. Also, the current ratio declined to \(2.0 / 1\) in 1993 from 3.0/1 in 1992 primarily as a result of the aforementioned net uses of cash and an increase in current liabilities of approximately \(\$ 7.6\) million related to the company's 1993 repositioning charges (see Note 2 on page 19). Cash outlays associated with the repositioning charges, which will be funded internally, are anticipated to be approximately \(\$ 3.7\) million in 1994 and \(\$ 2.1\) million in the years thereafter.

Expenditures for property, plant and equipment in 1993 included the purchase of new computer equipment and related software systems in the United States, construction of a new office/laboratory in Australia, expenditures for environmental and regulatory compliance in the amount of \(\$ 1.0\) million, and upgrades of manufacturing capabilities at various locations. Capital expenditures for 1994 are expected to be in the range of \(\$ 9-\$ 11\) million and include continued investment in major software systems in the United States, various upgrades to manufacturing capabilities in the United States and Europe, and expenditures, estimated at approximately \(\$ 1.6\) million, for environmental and regulatory compliance. The company believes that funds generated internally should be sufficient to finance the capital expenditure program.

The parent company has available \(\$ 10\) million in a line of credit and, based on its debt-equity ratio and current levels of operating performance, believes that additional bank borrowings could be negotiated at competitive rates, if required. The company is capable of supporting the anticipated growth in operations during 1994, continued growth in dividends to shareholders, stock repurchases and possible acquisition opportunities closely aligned with key business strategies through internally generated funds supplemented with debt as needed. In this regard, during 1994 the company entered into an agreement for the creation of a joint venture (see Note 10 on page 26 ) which required an initial cash investment of approximately \(\$ 3.0\) million with additional investments expected based on the growth of the venture.

\section*{OPERATIONS}

\section*{COMPARISON OF 1993 WITH 1992}

Consolidated net sales for 1993 decreased \(\$ 17.5\) million (8\%) while income from operations before repositioning charges decreased \(\$ 7.9\) million (45\%) versus 1992. In 1993, the company recorded repositioning charges of \(\$ 11.9\) million ( \(\$ 7.9\) million after tax, or \(\$ .85\) per share) for the costs associated with a broad scope program of changes, which includes consolidation and closure of certain of the company's facilities, selected workforce reductions, and planned divestitures of nonstrategic business operations. When the overall program is completed in late 1994, the expected workforce reduction versus mid-year 1993 levels will be approximately 8 to 10 percent. The company expects to generate ongoing after-tax financial benefits from the program of \(\$ 1.4\) million to \(\$ 1.9\) million ( \(\$ .15-\$ .20\) per share) starting in 1994.

The 1993 consolidated sales decrease was due to two main factors, a 4\% decline in volume and a 4\% reduction associated with currency translation (fluctuations in foreign currency exchange rates used to translate local currency statements to dollars) as the U.S. dollar strengthened against most major currencies during 1993. The decrease in volume for the year was attributable primarily to a reduction in orders shipped to the

People's Republic of China as that country worked down an earlier buildup of inventory; the European recession's impact on customer production levels in markets served by the company; and the adverse effect of lower production rates in the aircraft and aerospace industry. Shipments to the People's Republic of China are expected to resume in the second half of 1994 under a more consistent order pattern. Other principal challenges still facing the company are continued pricing pressures in key markets and increased customer efficiencies in the usage of chemical products, particularly in North America. While United States operating conditions signal stabilization or slight improvement, the operations in Europe depend on that economy coming out of the recession.

Operating margins, before the repositioning charges, declined in 1993, when compared to 1992, due mainly to the negative leverage effect of fixed costs on reduced sales volume. In 1993, the combination of lower operating results, foreign taxes on earnings at rates different than the U.S. federal tax rate, and the influence of non-deductible expenses, such as good-will amortization, required a tax expense on a loss before taxes. The negative influence of currency translation on net income in 1993 was \(\$ .8\) million ( \(\$ .09\) per share). The decrease in equity in net income from associated companies was primarily due to lower earnings from the company's Mexican affiliate.

\section*{COMPARISON OF 1992 WITH 1991}

Consolidated net sales in the year 1992 increased \(\$ 21.4\) million (11\%) while income from operations increased \(\$ 2.5\) million (16\%) over 1991. The increase in sales was due to increases in volume 4\%, price/mix 1\%, fluctuations in rates used to translate foreign currencies \(2 \%\) (producing a positive effect on net income of \(\$ .5\) million) and the net effect of acquisitions and divestitures \(4 \%\). The increase in volume for the year was attributable primarily to orders shipped to the People's Republic of China and increases in Quaker Construction Products and the European operations. The net increase of \(4 \%\) due to acquisitions and divestitures relates to the inclusion of the subsidiary in Spain for the full year 1992, inclusion of Alpine Labs for part of 1992, and divestiture of Overdale during 1991.

In the steel market, sales, after a very strong start in the first quarter, softened in the United States market in the middle quarters and decreased significantly in the fourth quarter. The metalworking market in both the U.S. and Europe was stable until the fourth quarter when a significant downturn in production in Europe and decreased orders driven by cyclical consumption in the U.S. caused sales to drop. Therefore, the gross profit in the fourth quarter fell well below the first three quarters. Sales to the paper production market decreased mainly as a result of a deemphasis of sales of one of the paper product lines.

Cost of goods sold as a percent of net sales decreased 1.1\% in 1992, as compared to 1991, mainly as a result of capitalizing on increased sales volume and enhanced cost control. Raw material prices remained relatively stable during 1992. Notwithstanding the increase in volume in 1992, selling, administration and general expenses as a percent of sales generally remained constant as compared to 1991. Programs for product and market development, as well as quality enhancements, have contributed to this situation. The decrease in equity in net income from associated companies is due to the subsidiary in Spain being included in consolidated results (previously reported as an associated company).

\section*{GENERAL}

The company does not use financial instruments which expose it to significant risk involving foreign currency transactions; however, the size of international activities has a significant impact on reported operating results and the attendant net assets. During the past three years, sales by non-U.S. subsidiaries accounted for approximately 40-44\% of the dollar amount of consolidated sales. In the same period, these subsidiaries accounted for approximately \(68-71 \%\) of consolidated operating profit (see Note 9 on page 25). The greater profitability of non-U.S. sales during this period is attributable to higher unit selling prices and lower fixed overhead and selling costs.

JURISDICTION OF INCORPORATION
NAME
*Quaker Chemical Europe B.V.
*Quaker Chemical B.V.
*Quaker Chemical, S.p.A.
*Quaker Chemical Holdings UK Limited
*Quaker Chemical Limited
*Quaker Chemical S.A.R.L.
*Raffineries de l'Ile de France
**Quaker Chemical South
Africa (Pty.) Limited
*Quaker Chemical, S.A.
*Quaker Chemical, S.A.
*Quaker Chemical Industria e Comercia Ltda.
**Kelko Quaker Chemical, S.A.
*Quaker Chemical Limited
*Quaker Chemical South East
Asia Pte. Ltd.
**Nippon Quaker Chemical, Ltd.
*Quaker Chemical (Australasia) Pty. Limited
*QuakerChem Canada Limited
**TecniQuimia Mexicana
S.A. de C.V.
*Selby, Battersby \& Co.
*Quaker Chemical Corporation Wales, Australia
\begin{tabular}{lc} 
Holland & \(100 \%\) \\
Holland & \(100 \%\) \\
Italy & \(100 \%\) \\
United Kingdom & \(100 \%\) \\
United Kingdom & \(100 \%\) \\
France & \(100 \%\) \\
France & \(100 \%\) \\
Republic of South & \(50 \%\) \\
Africa & \(100 \%\) \\
Spain & \(100 \%\) \\
Argentina & \(100 \%\) \\
Brazil
\end{tabular}
Venezuela 50\%
Hong Kong 100\%
Singapore 100\%
Japan 50\%

State of New South 51\%

Canada 100\%
Mexico 40\%

Delaware, U.S.A. 100\%
Delaware, U.S.A. 100\%
19
*AC Products, Inc.
*Quaker Construction Products, Inc.
*QSC Products, Ltd.
*Multi-Chemical Products, Inc.
*Quaker Petroleum Chemicals Company
\begin{tabular}{ll} 
California, U.S.A. & \(100 \%\) \\
Pennsylvania, U.S.A. & \(100 \%\) \\
Pennsylvania, U.S.A. & \(100 \%\) \\
California, U.S.A. & \(100 \%\) \\
Pennsylvania, U.S.A. & \(100 \%\)
\end{tabular}
* Included in the consolidated financial statements.
** Accounted for in the consolidated financial statements under the equity method.

\section*{CONSENT OF INDEPENDENT ACCOUNTANTS}

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (No. 2-57924, No. 33-54158, and No. 33-51655) of Quaker Chemical Corporation of our report dated February 18, 1994 appearing on page 26 of the 1993 Annual Report to Shareholders which is incorporated in this Annual Report on Form \(10-\mathrm{K}\). We also consent to the incorporation by reference of our report on the Financial Statement Schedules which appears on page 14 of this Form 10-K.

PRICE WATERHOUSE

Thirty South Seventeenth Street
Philadelphia, Pennsylvania 19103
March 30, 1994```

