UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

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

# FORM 10-Q

(Mark One)
|X| QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended 31 March 1998

OR

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

For the transition period from____________to_____________

Commission file number 1-4534

AIR PRODUCTS AND CHEMICALS, INC.
(Exact Name of Registrant as Specified in Its Charter)

| | |
|---|---|
| Delaware | 23-1274455 |
| (State of Other Jurisdiction of Incorporation or Organization) | (I.R.S. Employer Identification No.) |

7201 Hamilton Boulevard, Allentown, Pennsylvania 18195-1501
(Address of Principal Executive Offices) (Zip Code)

Registrant's Telephone Number, Including Area Code 610-481-4911

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

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

| Class | Outstanding at 7 May 1998 |
|---|---|
| Common Stock, $1 par value | 117,111,744 |

AIR PRODUCTS AND CHEMICALS, INC. and Subsidiaries

INDEX



REMARKS:

The consolidated financial statements of Air Products and Chemicals, Inc. and its subsidiaries (the "Company" or "Registrant") included herein have been prepared by the Company, without audit, pursuant to the rules and regulations of the Securities and Exchange Commission. Certain information and footnote disclosures normally included in financial statements prepared in accordance with generally accepted accounting principles have been condensed or omitted pursuant to such rules and regulations. In the opinion of the Company, the accompanying statements reflect all adjustments necessary to present fairly the financial position, results of operations and cash flows for those periods indicated, and contain adequate disclosure to make the information presented not misleading. Such adjustments are of a normal, recurring nature unless otherwise disclosed in the notes to consolidated financial statements. However, the results for the periods indicated herein reflect certain adjustments, such as the valuation of inventories on the LIFO cost basis, which can only be finally determined on an annual basis. It is suggested that these consolidated condensed financial statements be read in conjunction with the financial statements and notes thereto included in the Company's latest annual report on Form 10-K.

Results of operations for any three month period are not necessarily indicative of the results of operations for a full year.

AIR PRODUCTS AND CHEMICALS, INC. and Subsidiaries

CONSOLIDATED BALANCE SHEETS

(Millions of dollars)

| ASSETS | 31 March 1998 | 30 September 1997 |
|---|---|---|
| CURRENT ASSETS | | |
| Cash and cash items | $85.0 | $52.5 |
| Trade receivables, less allowances for doubtful accounts | 865.3 | 879.6 |
| Inventories | 407.5 | 386.5 |
| Contracts in progress, less progress billings | 86.1 | 121.3 |
| Other current assets | 166.2 | 184.4 |
| TOTAL CURRENT ASSETS | 1,610.1 | 1,624.3 |
| INVESTMENTS | 354.3 | 576.8 |
| PLANT AND EQUIPMENT, at cost | 8,996.4 | 8,727.3 |
| Less - Accumulated depreciation | 4,460.9 | 4,286.1 |
| PLANT AND EQUIPMENT, net | 4,535.5 | 4,441.2 |
| GOODWILL | 277.2 | 248.6 |
| OTHER NONCURRENT ASSETS | 382.7 | 353.2 |
| TOTAL ASSETS | $7,159.8 | $7,244.1 |

| LIABILITIES AND SHAREHOLDERS' EQUITY | 31 March 1998 | 30 September 1997 |
|---|---|---|
| CURRENT LIABILITIES | | |
| Payables, trade and other | $543.9 | $616.6 |
| Accrued liabilities | 278.5 | 315.7 |
| Accrued income taxes | 84.9 | 15.9 |
| Short-term borrowings | 88.5 | 100.9 |
| Current portion of long-term debt | 124.3 | 75.5 |
| TOTAL CURRENT LIABILITIES | 1,120.1 | 1,124.6 |
| LONG-TERM DEBT | 2,254.2 | 2,291.7 |
| DEFERRED INCOME AND OTHER NONCURRENT LIABILITIES | 510.4 | 449.7 |
| DEFERRED INCOME TAXES | 674.4 | 730.0 |
| TOTAL LIABILITIES | 4,559.1 | 4,596.0 |
| SHAREHOLDERS' EQUITY | | |
| Common stock, par value $1 per share | 124.7 | 124.7 |
| Capital in excess of par value | 453.4 | 453.0 |
| Retained earnings | 3,206.4 | 2,990.2 |
| Unrealized gain on investments | 8.7 | 6.9 |
| Cumulative translation adjustments | (266.8) | (186.1) |
| Treasury stock, at cost | (492.0) | (297.3) |
| Shares in trust | (433.7) | (443.3) |
| TOTAL SHAREHOLDERS' EQUITY | 2,600.7 | 2,648.1 |
| TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY | $7,159.8 | $7,244.1 |

AIR PRODUCTS AND CHEMICALS, INC. and Subsidiaries

CONSOLIDATED INCOME

(Millions of dollars, except per share)

| | Three Months Ended 31 March | | Six Months Ended 31 March | |
|---|---|---|---|---|
| | 1998 | 1997 | 1998 | 1997 |
| SALES AND OTHER INCOME | | | | |
| Sales | $1,208.6 | $1,153.1 | $2,443.4 | $2,274.0 |
| Other income, net | 3.7 | 10.4 | (1.6) | 19.8 |
| | 1,212.3 | 1,163.5 | 2,441.8 | 2,293.8 |
| COSTS AND EXPENSES | | | | |
| Cost of sales | 701.9 | 686.3 | 1,422.6 | 1,379.0 |
| Selling, distribution, and administrative | 277.3 | 264.7 | 547.2 | 506.2 |
| Research and development | 27.0 | 28.5 | 53.3 | 55.2 |
| OPERATING INCOME | 206.1 | 184.0 | 418.7 | 353.4 |
| Income from equity affiliates, net of related expenses | 7.9 | 13.5 | 13.6 | 32.2 |
| Gain on Ref-Fuel Sale and Contract Settlement | -- | -- | 75.2 | -- |
| Interest expense | 39.0 | 42.5 | 79.2 | 82.4 |
| INCOME BEFORE TAXES | 175.0 | 155.0 | 428.3 | 303.2 |
| Income taxes | 54.5 | 49.0 | 147.3 | 97.3 |
| NET INCOME | $120.5 | $106.0 | $281.0 | $205.9 |
| BASIC EARNINGS PER COMMON SHARE | $1.12 | $.96 | $2.59 | $1.87 |
| DILUTED EARNINGS PER COMMON SHARE | $1.09 | $.94 | $2.53 | $1.83 |
| WEIGHTED AVERAGE NUMBER OF COMMON SHARES (in millions) | 107.9 | 109.9 | 108.6 | 110.2 |
| WEIGHTED AVERAGE NUMBER OF COMMON AND COMMON EQUIVALENT SHARES (in millions) | 110.4 | 112.4 | 110.9 | 112.5 |
| DIVIDENDS DECLARED PER COMMON SHARE - Cash | $.30 | $.275 | $.60 | $.55 |

AIR PRODUCTS AND CHEMICALS, INC. and Subsidiaries
CONSOLIDATED CASH FLOWS

(Millions of dollars)

| | Six Months Ended 31 March | |
|---|---|---|
| | 1998 | 1997 |
| OPERATING ACTIVITIES | | |
| Net Income | $281.0 | $205.9 |
| Adjustments to reconcile income to cash provided by operating activities: | | |
| Depreciation | 238.2 | 223.5 |
| Deferred income taxes | 37.6 | 31.3 |
| Ref-Fuel divestiture deferred income taxes | (80.3) | -- |
| Impairment loss | -- | 9.3 |
| Undistributed (earnings) of unconsolidated affiliates | 15.9 | (27.5) |
| Gain on sale of assets and investments | (83.7) | (22.5) |
| Other | 65.1 | 21.0 |
| Working capital changes that provided (used) cash, net of effects of acquisitions: | | |
| Trade receivables | 9.7 | (71.1) |
| Other receivables | 34.0 | 72.7 |
| Inventories and contracts in progress | 18.6 | (69.8) |
| Payables, trade and other | (66.9) | 65.6 |
| Accrued liabilities | (48.8) | (17.9) |
| Accrued income taxes | 89.0 | 21.0 |
| Other | (10.9) | (2.0) |
| Cash provided by (used for) discontinued operations | (3.4) | .7 |
| CASH PROVIDED BY OPERATING ACTIVITIES | 495.1 | 440.2 |
| INVESTING ACTIVITIES | | |
| Additions to plant and equipment | (332.7) | (488.9) |
| Acquisitions, less cash acquired | (125.0) | (292.2) |
| Investment in and advances to unconsolidated affiliates | (10.0) | (24.3) |
| Proceeds from sale of assets and investments | 285.9 | 82.7 |
| Other | (13.8) | 4.1 |
| CASH PROVIDED BY (USED FOR) INVESTING ACTIVITIES | (195.6) | (718.6) |
| FINANCING ACTIVITIES | | |
| Long-term debt proceeds | 52.2 | 527.5 |
| Payments on long-term debt | (54.0) | (52.1) |
| Net increase (decrease) in commercial paper | 10.2 | (31.0) |
| Net increase (decrease) in other short-term borrowings | (15.1) | 8.5 |
| Dividends paid to shareholders | (65.4) | (60.6) |
| Purchase of Treasury Stock | (200.0) | (100.0) |
| Other | 7.1 | 19.8 |
| CASH PROVIDED BY (USED FOR) FINANCING ACTIVITIES | (265.0) | 312.1 |
| Effect of Exchange Rate Changes on Cash | (2.0) | (.6) |
| Increase in Cash and Cash Items | 32.5 | 33.1 |
| Cash and Cash Items - Beginning of Year | 52.5 | 78.7 |
| Cash and Cash Items - End of Period | $85.0 | $111.8 |

AIR PRODUCTS AND CHEMICALS, INC. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

On 1 October 1997, the Company adopted Statement of Position 96-1, "Environmental Remediation Liabilities." This statement had minimal impact on the financial statements.

Effective 31 December 1997, the Company adopted SFAS No. 128, "Earnings Per Share" and SFAS No. 129 "Disclosure of Information about Capital Structure." SFAS No. 129 does not change the currently reported disclosures, while SFAS No. 128 establishes new accounting and disclosure for earnings per share (EPS). The following table sets forth the computation of basic and diluted earnings per share:

| (Millions, except per share) | Three Months Ended 31 March | | Six Months Ended 31 March | |
|---|---|---|---|---|
| | 1998 | 1997 | 1998 | 1997 |
| Numerator for basic EPS and diluted EPS-net income | $120.5 | $106.0 | $281.0 | $205.9 |
| Denominator for basic EPS - -weighted average shares | 107.9 | 109.9 | 108.6 | 110.2 |
| Effect of diluted securities: | | | | |
| Employee stock options | 1.9 | 2.0 | 1.9 | 1.9 |
| Other award plans | 0.6 | 0.5 | 0.4 | 0.4 |
| | 2.5 | 2.5 | 2.3 | 2.3 |
| Denominator for diluted EPS - -weighted average shares and assumed conversions | 110.4 | 112.4 | 110.9 | 112.5 |
| Basic EPS | $1.12 | $.96 | $2.59 | $1.87 |
| Diluted EPS | $1.09 | $.94 | $2.53 | $1.83 |

Options on 2.5 million shares of common stock were not included in computing diluted EPS because their effects were antidilutive. The potential dilutive effect of these options can not be estimated based on current information.

In December 1997, the Company sold its 50% interest in American Ref-Fuel Company, its former waste-to-energy joint venture with Browning-Ferris Industries, Inc., to a limited liability company formed by Duke Energy Power Services and United American Energy Corporation. The Company sold its interest in American Ref-Fuel's five waste-to-energy facilities for $237 million, and Duke Energy Capital Corporation, the parent company of Duke Energy Power Services, assumed various parental support agreements. The income statement for the six months ended 31 March 1998 includes a gain of $62.6 million from this sale, ($35.1 million after tax or $.32 per share.) Air Products retained a limited partnership interest in one project which is undergoing a power agreement restructuring. The restructuring is expected to be completed within the calendar year. Fiscal 1997 results included equity affiliates' income related to American Ref-Fuel of $21.4 million before taxes of which $2.3, $.8, $9.6 and $8.7 million was included in the first through fourth quarters respectively.

The results for the six months ended 31 March 1998 also include a gain of $12.6 million from a cogeneration project contract settlement ($7.6 million after tax or $.07 per share.)

The Company completed the sale of the landfill gas recovery business, GSF Energy Inc., during the three months ended 31 December 1996. A gain of $9.5 million ($5.9 million after tax, or $.05 per share) was recorded.

During the three months ended 31 December 1996, an impairment loss of $9.3 million ($6.0 million after tax, or $.05 per share) was recorded in the chemicals segment. The write-down was related to production assets in the performance chemicals division and the related goodwill.

Shareholder Rights Plan

On 19 March 1998, the Board of Directors unanimously approved a shareholder rights plan to replace the Company's previous rights plan, which expired 16 March 1998. Under the plan, the Board of Directors declared a dividend of one Right for each share of Common Stock outstanding at the close of business on 19 March 1998 and with respect to Common Shares issued thereafter until the Distribution Date (as defined below). Each Right, when it becomes exercisable as described below, will entitle its holder to purchase one one-thousandth of a share of Series A Participating Cumulative Preferred Stock, par value $1 per share, of the Company (the "Preferred Shares") at a price of $345.00 (the "Purchase Price").

Until the earlier of (i) such time as the Company learns that a person or group has acquired, or obtained the right to acquire, beneficial ownership of more than 15% of the outstanding Common Shares (such person or group being called an "Acquiring Person"), and (ii) such date, if any, as may be designated by the Board of Directors following the commencement of, or first public disclosure of an intention to commence, a tender or exchange offer for outstanding Common Shares which could result in such person or group becoming the beneficial owner of more than 15% of the outstanding Common Shares, (the earlier of such dates being called the "Distribution Date"), the Rights will be evidenced by certificates for Common Shares and not by separate Right certificates. Therefore, until the Distribution Date, the Rights will be transferred with and only with the Common Shares. The Rights are not exercisable until the Distribution Date and will expire on 19 March 2008 (the "Expiration Date"), unless earlier redeemed by the Company as described below.

Subject to the right of the Board of Directors to redeem the Rights, at such time as there is an Acquiring Person, each Right (other than Rights held by an Acquiring Person) will thereafter have the right to receive, upon exercise thereof, for the Purchase Price, that number of one one-thousandths of a Preferred Share equal to the number of Common Shares which at the time of such transaction would have a market value of twice the Purchase Price. If the Company is acquired in a merger or other business combination by an Acquiring Person or 50% or more of the Company's assets or assets representing 50% or more of the Company's earning power are sold, leased, exchanged or otherwise transferred (in one or more transactions) to an Acquiring Person, each Right (other than Rights held by an Acquiring Person) will entitle its holder to purchase, for the Purchase Price, that number of common shares of such corporation (or, if such corporation is not publicly traded, common shares of any publicly traded affiliate of such corporation) which at the time of the transaction would have a market value (or, if the Acquiring Person is not a publicly traded corporation, having a book value) of twice the Purchase Price.

The Rights are redeemable by the Board of Directors at a redemption price of $.01 per Right any time prior to the earlier of such time as there is an Acquiring Person and Expiration Date.

AIR PRODUCTS AND CHEMICALS, INC. and Subsidiaries

MANAGEMENT'S DISCUSSION AND ANALYSIS

SECOND QUARTER FISCAL 1998 VS. SECOND QUARTER FISCAL 1997

RESULTS OF OPERATIONS

Consolidated

Sales in the second quarter of fiscal 1998 were $1,208.6 million, 5% higher than in the same quarter of the prior year. Operating income of $206.1 million increased 12%, or $22.1 million. Profits of equity affiliates decreased $5.6 million to $7.9 million. Net income was $120.5 million, up $14.5 million over the prior year. Diluted earnings per share of $1.09, on the record net income from operations, was up 16% over the $.94 reported in the second quarter of fiscal 1997.

The strong earnings growth continued for the sixth consecutive quarter at a double digit rate. The increase of $.15 diluted earnings per share was achieved net of various negative currency effects that restrained earnings per share growth by $.05. The unfavorable currency impact occurred mainly due to the year-to-year devaluation of continental European and Asian currencies.

Consolidated sales grew 5%, net of an unfavorable 2% currency impact. Strong growth in merchant gases and in most chemicals businesses led the growth. While equipment project activity remained high, a change in product mix caused a drop in sales for the quarter.

The 5% growth in sales was leveraged into a strong 12% increase in operating income. Excluding the gain on a sale of an investment in the prior year second quarter, growth in operating income is 17%. In addition to the impact of broad based volume gains, there were favorable results generated by productivity programs across the Company as well as gains from asset management efforts, particularly in the tonnage gas pipeline franchises.

Equity affiliates' income declined due to the unfavorable business environment in Asia and the divestiture of the American Ref-Fuel Company in the first quarter of this fiscal year.

Industrial Gases - Sales increased 7% to $715.3 million in the second quarter of fiscal 1998 while operating income increased 15% to $144.7 million. Excluding a 3% negative impact from currency changes, sales and operating income grew 10% and 18% respectively.

North America gases experienced growth in all major product lines. Merchant gases were up 12% overall. LOX/LIN volumes grew 7% with higher end-use demand across many markets. Liquid hydrogen grew 18%, driven by the additional NASA supply contract, which will not continue to grow as significantly as the first contract year completes in April, 1998. Specialty gases and Schumacher volumes were driven by higher electronics demand. Cylinder volumes grew 10%, with acquisitions adding to a same store sales growth of 5%. The average LOX/LIN price in the United States fell 3% primarily due to growth of lower priced high volume customer demand. Tonnage volume grew 3% in North America as some spot HYCO business declined.

In Europe there was a fourth quarter of encouraging volume growth in both merchant gases and tonnage businesses. Merchant gas volumes grew 7% (9% including Carburos Metalicos) and tonnage gas volumes grew 12%. LOX/LIN volumes grew 6% excluding Non-Cryo business and 10%

including the strong growth in Non-Cryo business. Liquid Argon grew 8% due to electronics growth in the United Kingdom and new business signings in France. Tonnage gases growth benefited from the commencement of new facilities in Rotterdam and at Wilton in the United Kingdom. LOX/LIN pricing was down 3% due to customer mix, similar to the experience in the United States, and some market weakness in France and the United Kingdom.

The overall 15% growth in operating income, after a 3% negative currency impact, was due to a combination of the substantial volume growth, asset management initiatives and productivity gains. Combined, these effects resulted in operating margin growth to 20.2% from 18.7% in the prior year second quarter.

Unfavorable economic conditions in Asia resulted in a decline in equity affiliates' income from $8.5 million to $2.8 million for the quarter. This is due to a combination of currency weakness, lower customer demand and higher infrastructure costs.

Chemicals- Sales in the second quarter of fiscal 1998 of $378.4 million increased $19.9 million, or 6%. Operating income grew 8%, or $4.2 million, to $57.6 million. Both sales and operating income were impacted about 1% by unfavorable currency effects. Overall volume grew 12%, led by strong growth in polymers and chemical intermediates, up 10% and 25% respectively. Amines drove the growth in chemical intermediates with both base business growth and acquisition impacts. Overall performance chemicals volumes remained unchanged as the weak Asian economy tempered volumes in epoxy additives and polyurethane chemicals. Some margin pressures were experienced in polymers. The operating margin increased to 15.2% from 14.9% in the prior year. Margin improvement is attributed to higher plant utilization and the benefits of on-going productivity programs.

Equipment and Services - Sales of $114.9 million declined $8.7 million from $123.6 million in the prior year. Operating income however, grew 66% or $6.9 million to 17.4 million. While sales declined slightly, due to product mix, overall broad-based project activity remained strong. A favorable product mix combined with good project cost performance contributed to the record operating income in this segment. Sales backlog is $355 million at 31 March 1998. This backlog compares to $392 million at the same date in the prior year. The backlog is up substantially from the $277 million level at the end of 31 December 1997. The product mix in the backlog is more heavily weighted to air separation equipment.

Equity affiliates' income of $3.9 million was up $.4 million or 11% over the prior year. The improved results reflect the continued good performance at the power generation facilities.

Corporate and Other - Operating expense of $13.6 million was up $8.2 million from the prior year. The prior year results included a $7.3 million gain on the sale of shares in a cost based investment. Excluding this gain, the operating expense increase from the prior year was $.9 million.

Equity affiliates' income is essentially the same as in the prior year. However, in the prior year there was a $4.8 million charge for a debt refinancing in the American Ref-Fuel Company. Excluding the refinancing charge, equity affiliates' income is down $5.4 million due to the divestiture of the business in December 1997.

INTEREST

Interest expense of $39.0 million is down 8% from $42.5 million in the prior year, caused by a lower average debt balance and lower interest rates, partially offset by lower capitalized interest.

INCOME TAXES

The consolidated effective tax rate on income was 31.2%, down slightly from 31.6% in the prior fiscal year.

ACCOUNTING CHANGES

As of January 1, 1998, the Company no longer applied highly inflationary accounting to operations in Brazil. For operations that used the United States dollar for translation due to hyper-inflationary conditions, the functional currency became the Brazilian Real. No material effects on the financial statements resulted from this change.

In February 1998, the Financial Accounting Standards Board issued SFAS No. 132, "Employers' Disclosures about Pensions and Other Post Retirement Benefits." There are no measurement or recognition changes due to the new standard. This statement standardizes disclosure requirements and requires additional information to facilitate analysis of changes in benefit obligations and the fair market value of plan assets. This standard will be applied to the financial statements for the year ended 30 September 1998.

In March 1998, the American Institute of Certified Public Accountants issued Statement of Position (SOP) 98-1, "Accounting for the Costs of Computer Software Developed or Obtained for Internal Use." The SOP requires companies to capitalize certain internally developed software costs based on criteria and guidance in the Statement. The Company currently expenses the costs of internally developed software. The Company will apply this Statement beginning with fiscal year 1999. The impact is being evaluated, but is not expected to be material to the consolidated financial statements.

YEAR 2000 SOFTWARE ISSUE

The Company recognizes the need to ensure that its operations will not be adversely impacted by Year 2000 software failures. Software failures due to processing errors potentially arising from calculations using the Year 2000 date are a known risk. The Company is addressing the Year 2000 financial and operating systems risk by establishing processes for evaluating and managing the risks associated with this problem. In 1996, the Company's computing portfolio was assessed and specific plans were initiated to ensure Year 2000 compliance on mission-critical systems by 1999. The Company's most recent estimates of the costs to achieve such Year 2000 compliance plans continue to remain viable at approximately $18 million over the cost of normal software upgrades and replacements.

In addition, assessment and remediation of the Company's manufacturing control systems, transfill and distribution facilities and other embedded-chip devices for compliance with the Year 2000 issue are now under way. The Company is also identifying and contacting customers, suppliers and other critical business partners to determine if entities with which the Company transacts business have effective Year 2000 plans in place and to assess the potential impact of the Year 2000 issue on the Company's operations. The supply of critical energy requirements to Company facilities will be included in such assessment. Contingency plans will be developed as needed. Although the process of identifying, assessing and remediating continues, the Company does not anticipate that the Year 2000 issues within its control will have a material effect on the Company's business, operations or financial condition.

SUBSEQUENT EVENTS

The Company and Wacker-Chemie GmbH (Munich, Germany) have substantially concluded negotiations to combine their emulsions and redispersible powder businesses within two joint venture entities they expect to establish and start up on 1 October 1998. The combined sales revenues of the two joint venture entities, each with its own management team, will exceed US$700 million. The two companies have been in discussions regarding the formation of the joint ventures since late last year.

The Company and Wacker are now in the process of completing the legal and administrative documentation and other arrangements necessary to create and operate the joint ventures. Approval will be obtained from the relevant merger control authorities prior to start-up.

Subsequent to the balance sheet date (6 May 1998), the Board of Directors approved a two-for-one stock split. The additional shares will be issued on 15 June 1998, to shareholders of record on 15 May 1998.

## SIX MONTHS FISCAL 1998 VS. SIX MONTHS FISCAL 1997

## RESULTS OF OPERATIONS

### Consolidated

Sales in the first six months of fiscal 1998 of $2,443.4 million were 7% higher than the $2,274.0 million reported in the prior fiscal year. Operating income was up $65.3 million, or 18%, to $418.7 million. Profits of equity affiliates decreased $18.6 million to $13.6 million for the six months ended 31 March 1998. Net income was $281.0 million, or $2.53 diluted earnings per share, compared to net income of $205.9 million, or $1.83 diluted earnings per share in the prior year. In the first fiscal quarter of 1998 there were two special items; an after tax gain of $35.1 million, or $.32 per share from the sale of the Company's 50% interest in American Ref-Fuel Company, and a gain of $7.6 million, or $.07 per share from a cogeneration project contract settlement. Excluding these special items, net income for this year is $238.3 million, or $2.14 diluted earnings per share, up 17% over the $1.83 reported in fiscal 1997.

The very favorable results were achieved in spite of unfavorable foreign currency impacts. For the six months of fiscal 1998, foreign exchange and currency losses have the combined impact of reducing the earnings per share growth by approximately $.22. A stronger U.S. dollar versus most of the world's currencies resulted in a reduced diluted earnings growth of $.10. The Company's Asian equity affiliates were impacted by unfavorable economic conditions and were primarily the cause of the $.12 exchange impact.

Consolidated sales grew 7%, in spite of a 2% unfavorable currency related impact. Merchant and tonnage gases in both Europe and North America have experienced strong growth in new business and broad based end use growth. Due to a product mix change, Equipment and Services sales are down even as project activity remains high.

Equity affiliates' income declined due to the unfavorable business environment in Asia, the divestiture of the American Ref-Fuel Company in December 1997, and the seven weeks of Carburos Metalicos income included in the prior year's first quarter.

Industrial Gases - Sales of $1,442.3 million in the first six months of fiscal 1998 increased 12%, or $156.8 million over the $1,285.5 million reported in fiscal 1997. Strong volume gains in both merchant and tonnage gases were achieved in both the North American and European regions. Unfavorable currency effects, primarily European, decreased year-to-year sales growth by approximately 3%. Merchant gases volumes are up 12% and 7% in North America and Europe respectively, consistent with broad end-use market growth and new business signings. Pricing in the LOX/LIN component of merchant gases is down about 2% in both Europe and North America, with average pricing impacted primarily by the lower priced high volume customer demand. Tonnage gases volumes grew 21% and 8% in Europe and North America, driven by loading on recent investments, particularly in the HYCO franchise systems. Operating income of $291.9 million increased 20%, or $48.1 million. Operating margin for the six months was 20.2% up more than a full percent from 19.0% in the prior year. The operating margin improvement reflects the volume growth leveraged by initiatives in asset management and productivity.

Equity affiliates' income decreased $17.3 million to $3.2 million. This decline is primarily the result of the unfavorable economic environment in Asia.

Chemicals - Sales in the first six months of fiscal 1998 of $759.3 million increased $54.6 million or 8%. Operating income grew $28.1 million to $126.0 million. The results of the prior year were reduced by $9.3 million due to an asset impairment loss in the polyurethane release agents business. Excluding this prior year loss, fiscal 1998 operating income grew 18%. This substantive growth was driven by broad based volume growth combined with the impacts of productivity initiatives. The overall volume for the segment grew about 13% for the first half of the fiscal year, led by the chemicals intermediates and polymers businesses. Chemicals intermediates growth is driven by the amines business that is experiencing good base growth and contributions from acquisitions. Polymers volume growth is primarily the result of increased demand in both the emulsions and PVOH businesses. The Asian economic environment remains an uncertainty as to the effect on exports and margins.

Equipment and Services - Sales decreased to $241.8 million from $282.6 million in the prior year due to a change in product mix. Overall, project activity remains strong. Operating income is $30.0 million or 86% higher than in the prior year. The increase is due to the change in product mix and good project execution. Sales backlog is $355 million at 31 March 1998. This backlog compares to $392 million at the same date in the prior year. The backlog is up substantially from the $277 million level at 31 December 1997. The product mix in the backlog is more heavily weighted to air separation equipment.

Equity affiliates' income for the first half of fiscal 1998 increased $1.3 million to $8.3 million, or 19% over the prior year. The increase is due to good performance at the power generation facilities.

Corporate and Other - Operating expense is up $24.8 million over the prior year. The prior year results included a $9.5 million gain on the sale of the landfill gas recovery business and a $7.3 million gain on the sale of 19% of the shares in a cost based investment. Excluding these gains, operating expense grew $8.0 million due primarily to unfavorable foreign exchange impacts.

Equity affiliates' income declined $2.8 million. The prior year includes a $4.8 million charge related to refinancing a joint venture bond offering. Excluding this charge, equity affiliates' income is down $7.6 million, due to the sale of the American Ref-Fuel Company in December 1997.

INTEREST

Interest expense of $79.2 million declined $3.2 million or 4% below the prior year. Lower average debt and lower interest rates were partially offset by lower capitalized interest.

INCOME TAXES

The consolidated effective tax rate on income was 34.4%. Excluding the tax rate impact on the sale of the American Ref-Fuel Company and the gain on the cogeneration power contract settlement, the effective tax rate is 32.5%. This rate is up slightly from 32.1% in the prior year.

LIQUIDITY AND CAPITAL RESOURCES

Capital expenditures during the first six months of fiscal 1998 totaled $479.8 million compared to $808.4 million in the corresponding period of the prior year. Additions to plant and equipment decreased from $488.9 million during the first six months of fiscal 1997 to $332.7 million during the current period. Prior year numbers included the acquisition of an additional 49.1% of the outstanding shares of Carburos at a cost of $288.4 million. Investments in unconsolidated affiliates were $10.0 million during the first six months of fiscal 1998 versus $24.3 million last year. Capital expenditures are expected to be approximately $1.1 billion in fiscal 1998. It is anticipated that these expenditures will be funded with cash from operations supplemented with proceeds from financing activities.

Cash provided by operating activities during the first six months of fiscal 1998 ($495.1 million) combined with proceeds from the sale of assets and investments ($285.9 million) and cash provided by debt financing ($62.4 million) were used largely for capital expenditures ($479.8 million), purchase of common stock for treasury ($200.0 million), debt repayments ($69.1 million) and cash dividends ($65.4 million). Cash and cash items increased $32.5 million from $52.5 million at the beginning of the fiscal year to $85.0 million at 31 March 1998. The net increase in commercial paper was $10.2 million.

Total debt at 31 March 1998 and 30 September 1997, expressed as a percentage of the sum of total debt and shareholders' equity, was 49% and 48%, respectively. Total debt decreased from $2,468.1 million at 30 September 1997 to $2,467.0 million at 31 March 1998. During the second quarter of fiscal 1998, the Company issued $50.0 million in notes due in 2010 with a fixed coupon rate of 6.24%.

There was $145.2 million of commercial paper outstanding at 31 March 1998. The Company's revolving credit commitments amounted to $600.0 million at 31 March 1998 with funding available in 13 currencies. No borrowings were outstanding under these commitments. Additional commitments totaling $82.8 million are maintained by the Company's foreign subsidiaries, of which $3.3 million was utilized at 31 March 1998.

At 31 March 1998, the Company had unutilized shelf registrations for $375.0 million of debt securities.

The Company enters into interest rate swap agreements to change the fixed/variable interest rate mix of the debt portfolio in order to maintain the percentage of fixed and variable rate debt within certain parameters set by management. In accordance with these parameters, the agreements are used to reduce interest rate risks and costs inherent in the Company's debt portfolio. Accordingly, the Company enters into agreements to both effectively convert variable-rate debt to fixed-rate debt and to effectively convert fixed-rate debt to variable-rate debt, which is principally indexed to LIBOR rates. The Company has also entered into interest rate swap contracts to effectively convert the stated variable rates to interest rates based on LIBOR. The fair value gain (loss) on the variable to variable swaps is equally offset by a fair value loss (gain) on the related debt agreements.

The notional principal and fair value of interest rate swap agreements at 31 March 1998 and 30 September 1997 were as follows:

(Millions of dollars)

| | 31 March 1998 | | 30 September 1997 | |
|---|---|---|---|---|
| | Notional Amount | Fair Value Gain (Loss) | Notional Amount | Fair Value Gain (Loss) |
| Fixed to Variable | $511.0 | $ 17.7 | $461.0 | $9.6 |
| Variable to Variable | 60.0 | 89.5 | 60.0 | 68.9 |
| Total | $571.0 | $107.2 | $521.0 | $78.5 |

A $41.9 million asset has been recognized in the financial statements related to the above variable to variable interest rate swap agreements. Additionally, a $41.9 million liability has been recognized in the financial statements related to the corresponding debt agreements.

The Company is also party to interest rate and currency swap contracts. These contracts effectively convert the currency denomination of a debt instrument into another currency in which the Company has a net equity position while changing the interest rate characteristics of the instrument. The notional principal of interest rate and currency swap agreements outstanding at 31 March 1998 was $419.3 million. The fair value of the agreements was a gain of $17.4 million, of which a $42.5 million gain related to the currency component was recognized in the financial statements. The remaining $25.1 million loss was related to the interest component and has not been recognized in the financial statements. This loss reflects that current interest rates are generally lower than the interest rates paid under the interest rate and currency swap agreements. As of 30 September 1997 interest rate and currency swap agreements were outstanding with a notional principal amount and fair value of $354.1 million and a gain of $7.2 million, respectively.

The estimated fair value of the Company's long-term debt, including current portion, as of 31 March 1998 is $2,620.7 million compared to a book value of $2,378.5 million.

During the second quarter of fiscal 1998, .6 million shares of the Company's outstanding common stock were repurchased at a cost of $50.0 million. Under the current program, the Company has repurchased 6.2 million shares at a cost of $435.3 million to date. The remainder of the program will be dependent upon ongoing capital investment requirements.

FINANCIAL INSTRUMENTS

There has been no material change in the net financial instrument position or sensitivity to market risk since the disclosure in the annual report.

FORWARD-LOOKING STATEMENTS

The forward-looking statements contained in this document are based on current expectations regarding important risk factors. Actual results may differ materially from those expressed. Important risk factors and uncertainties include the impact of worldwide economic growth, pricing, and other factors resulting from fluctuations in interest rates and foreign currencies, the impact of competitive products and pricing, continued success of productivity programs, and the impact of tax and other legislation and other regulations in the jurisdictions in which the Company and its affiliates operate.

## PART II. OTHER INFORMATION

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

(a) The Annual Meeting of Shareholders of the Registrant was held on 22 January 1998.

(c) The following matters were voted on at the Annual Meeting:

(1) Election of Directors

| NAME OF DIRECTOR | NUMBER OF VOTES CAST | | | |
|---|---|---|---|---|
| | FOR | AGAINST OR WITHHELD | ABSTENTIONS | BROKER NON-VOTES |
| T. H. BARRETT | 105,809,141 | 1,699,180 | 0 | 0 |
| J. F. HARDYMON | 105,722,176 | 1,786,145 | 0 | 0 |
| T. SHIINA | 104,650,102 | 2,858,219 | 0 | 0 |
| L. D. THOMAS | 105,819,147 | 1,689,174 | 0 | 0 |

(2) Ratification of the appointment of Arthur Andersen LLP of Philadelphia, Pennsylvania, as independent certified public accountants for the Registrant for the fiscal year ending 30 September 1998.

| NUMBER OF VOTES CAST | | | |
|---|---|---|---|
| FOR | AGAINST OR WITHHELD | ABSTENTIONS | BROKER NON-VOTES |
| 106,370,343 | 343,446 | 794,532 | 0 |

Item 6. Exhibits and Reports on Form 8-K.

(a)(12) Computation of Ratios of Earnings to Fixed Charges.

(a)(27) Financial Data Schedule, which is submitted electronically to the Securities and Exchange Commission for information only, and not filed.

(b) A Current Report on Form 8-K dated 22 January 1998 was filed by the Registrant during the quarter ended 31 March 1997 in which Item 5 of such form was reported.

SIGNATURES

Pursuant to the requirements 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.

Air Products and Chemicals, Inc.
--------------------------------
(Registrant)

Date: May 14, 1998

By: /s/ P. E. Huck
-------------------------
P. E. Huck
Vice President &
Corporate Controller
(Chief Accounting Officer)

INDEX TO EXHIBITS

| | |
|---|---|
| (a)(12) | Computation of Ratios of Earnings to Fixed Charges. |
| (a)(27) | Financial Data Schedule, which is submitted electronically to the Securities and Exchange Commission for information only, and not filed. |

Exhibit (a)(12)

AIR PRODUCTS AND CHEMICALS, INC., AND SUBSIDIARIES

COMPUTATION OF RATIOS OF EARNINGS TO FIXED CHARGES
(Unaudited)

| | Year Ended 30 September | | | | | Six Months Ended 31 March |
|---|---|---|---|---|---|---|
| | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
| | (Millions of dollars) | | | | | |
| Earnings: | | | | | | |
| Income before extraordinary item and the cumulative effect of accounting changes: | $200.9 | $233.5 | $368.2 | $416.4 | $429.3 | $281.0 |
| Add (deduct): | | | | | | |
| Provision for income taxes | 103.0 | 95.2 | 186.2 | 195.5 | 203.4 | 149.0 |
| Fixed charges, excluding capitalized interest | 127.3 | 127.1 | 148.8 | 184.0 | 233.0 | 104.0 |
| Capitalized interest amortized during the period | 7.7 | 8.0 | 9.1 | 9.4 | 8.3 | 3.5 |
| Undistributed earnings of less-than-fifty-percent-owned affiliates | (8.1) | (2.8) | (25.4) | (40.6) | (31.1) | (9.6) |
| Earnings, as adjusted | $430.8 | $461.0 | $686.9 | $764.7 | $842.9 | $527.9 |
| Fixed Charges: | | | | | | |
| Interest on indebtedness, including capital lease obligations | $118.6 | $118.2 | $139.4 | $171.7 | $217.8 | $96.3 |
| Capitalized interest | 6.3 | 9.7 | 18.5 | 20.0 | 20.9 | 7.9 |
| Amortization of debt discount premium and expense | .7 | .8 | .2 | 1.5 | 1.8 | 0.9 |
| Portion of rents under operating leases representative of the interest factor | 8.0 | 8.1 | 9.2 | 10.8 | 13.4 | 6.8 |
| Fixed charges | $133.6 | $136.8 | $167.3 | $204.0 | $253.9 | $111.9 |
| Ratio of Earnings to Fixed Charges: | 3.2 | 3.4 | 4.1 | 3.7 | 3.3 | 4.7 |

5

THIS SCHEDULE CONTAINS SUMMARY FINANCIAL INFORMATION EXTRACTED FROM
THE CONSOLIDATED BALANCE SHEET AND THE CONSOLIDATED STATEMENT OF INCOME
FILED AS PART OF THE FORM 10-Q AND IN QUALIFIED IN ITS ENTIRETY BY
REFERENCE TO SUCH FORM 10-Q.

1,000,000

6-MOS
SEP-30-1998
OCT-01-1997
MAR-31-1998
85
0
887
22
407
1,610
8,996
4,461
4,535
1,120
2,254
0
0
125
2,476
7,160
2,443
2,443
1,423
1,423
53
3
79
428
147
281
0
0
0
281
2.59
2.53