

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

-----  
FORM 10-Q

(Mark One)

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

For the quarterly period ended 31 March 2001  
-----

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 (I.R.S. Employer Identification No.)  
Incorporation or Organization)

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  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  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 8 May 2001 |
|-----------------------------|---------------------------|
| Common Stock, \$1 par value | 227,942,740               |

AIR PRODUCTS AND CHEMICALS, INC. and Subsidiaries  
INDEX

Page No.  
-----

Part I. Financial Information

|  |    |
|--|----|
| Consolidated Balance Sheets -<br>31 March 2001 and 30 September 2000 .....   | 4  |
| Consolidated Income -<br>Three Months and Six Months Ended 31 March 2001 and 2000 .....                            | 5  |
| Consolidated Statement of Comprehensive Income -<br>Three Months and Six Months Ended 31 March 2001 and 2000 ..... | 6  |
| Consolidated Cash Flows -<br>Six Months Ended 31 March 2001 and 2000 .....   | 7  |
| Summary by Business Segments -<br>Three Months and Six Months Ended 31 March 2001 and 2000 .....                   | 8  |
| Summary by Geographic Regions -<br>Three Months and Six Months Ended 31 March 2001 and 2000 .....                  | 11 |
| Notes to Consolidated Financial Statements .....   | 12 |
| Management's Discussion and Analysis .....   | 14 |

Part II. Other Information

|  |    |
|--|----|
| Item 4. Submission of Matters to a Vote of Security Holders..... | 21 |
| Item 6. Exhibits and Reports on Form 8-K .....                   | 22 |

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 interim results for the periods indicated herein do not

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 or six 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)

|  | 31 March 2001<br>(Unaudited) | 30 September 2000 |
|--|------------------------------|-------------------|
| <b>ASSETS</b>  |                              |                   |
| <b>CURRENT ASSETS</b>  |                              |                   |
| Cash and cash items  | \$ 100.6                     | \$ 94.1           |
| Trade receivables, less allowances for doubtful accounts                               | 1,049.8                      | 982.7             |
| Inventories  | 405.7                        | 388.8             |
| Contracts in progress, less progress billings  | 108.5                        | 93.4              |
| Other current assets   | 240.3                        | 246.0             |
| <b>TOTAL CURRENT ASSETS</b>  | <b>1,904.9</b>               | <b>1,805.0</b>    |
| INVESTMENTS IN NET ASSETS OF AND ADVANCES TO EQUITY AFFILIATES                         | 493.8                        | 466.6             |
| PLANT AND EQUIPMENT, at cost   | 10,451.6                     | 10,310.9          |
| Less - Accumulated depreciation  | 5,274.9                      | 5,054.2           |
| PLANT AND EQUIPMENT, net   | 5,176.7                      | 5,256.7           |
| GOODWILL AND OTHER NONCURRENT ASSETS   | 709.1                        | 742.2             |
| <b>TOTAL ASSETS</b>  | <b>\$8,284.5</b>             | <b>\$8,270.5</b>  |
| <b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>  |                              |                   |
| <b>CURRENT LIABILITIES</b>   |                              |                   |
| Payables, trade and other  | \$ 577.0                     | \$ 578.4          |
| Accrued liabilities  | 336.6                        | 357.2             |
| Accrued income taxes   | 17.1                         | 10.0              |
| Short-term borrowings  | 209.1                        | 249.7             |
| Current portion of long-term debt  | 302.0                        | 179.5             |
| <b>TOTAL CURRENT LIABILITIES</b>   | <b>1,441.8</b>               | <b>1,374.8</b>    |
| LONG-TERM DEBT   | 2,515.6                      | 2,615.8           |
| DEFERRED INCOME & OTHER NONCURRENT LIABILITIES   | 534.3                        | 561.3             |
| DEFERRED INCOME TAXES  | 785.6                        | 781.8             |
| <b>TOTAL LIABILITIES</b>   | <b>5,277.3</b>               | <b>5,333.7</b>    |
| MINORITY INTEREST IN SUBSIDIARY COMPANIES  | 117.4                        | 115.5             |
| <b>SHAREHOLDERS' EQUITY</b>  |                              |                   |
| Common stock (par value \$1 per share, issued fiscal 2001 and 2000-249,455,584 shares) | 249.4                        | 249.4             |
| Capital in excess of par value   | 360.5                        | 342.2             |
| Retained earnings  | 3,816.7                      | 3,667.9           |
| Unrealized gain on investments   | 15.4                         | 15.7              |
| Minimum pension liability adjustments  | (2.7)                        | (2.7)             |
| Cumulative translation adjustments   | (498.1)                      | (420.8)           |
| Net gains on cash flow hedges  | 1.3                          | --                |
| Treasury Stock, at cost (fiscal 2001-21,419,844 shares; 2000-20,150,393 shares)        | (731.4)                      | (681.6)           |
| Shares in trust (fiscal 2001-13,850,516 shares; fiscal 2000-15,086,482 shares)         | (321.3)                      | (348.8)           |
| <b>TOTAL SHAREHOLDERS' EQUITY</b>  | <b>2,889.8</b>               | <b>2,821.3</b>    |
| <b>TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY</b>                                      | <b>\$8,284.5</b>             | <b>\$8,270.5</b>  |

The accompanying notes are an integral part of these statements.

AIR PRODUCTS AND CHEMICALS, INC. and Subsidiaries  
CONSOLIDATED INCOME  
(Unaudited)

(Millions of dollars, except per share)

|   | Three Months Ended<br>31 March |           | Six Months Ended<br>31 March |           |
|---|--------------------------------|-----------|------------------------------|-----------|
|   | 2001                           | 2000      | 2001                         | 2000      |
| <b>SALES AND OTHER INCOME</b>   |                                |           |                              |           |
| Sales   | \$1,498.3                      | \$1,347.2 | \$2,939.6                    | \$2,611.6 |
| Other income (expense), net   | (9.0)                          | 7.1       | 4.3                          | 13.9      |
|   | 1,489.3                        | 1,354.3   | 2,943.9                      | 2,625.5   |
| <b>COSTS AND EXPENSES</b>   |                                |           |                              |           |
| Cost of sales   | 1,104.8                        | 925.6     | 2,129.9                      | 1,802.7   |
| Selling and administrative  | 189.5                          | 179.9     | 363.0                        | 347.7     |
| Research and development  | 30.8                           | 29.9      | 59.3                         | 60.0      |
| <b>OPERATING INCOME</b>   |                                |           |                              |           |
| Income from equity affiliates, net of related expenses                                  | 164.2                          | 218.9     | 391.7                        | 415.1     |
| Income from equity affiliates, net of related expenses                                  | 16.9                           | 21.3      | 37.8                         | 41.6      |
| Loss on currency hedges related to BOC transaction and expenses                         | --                             | 134.7     | --                           | 247.9     |
| Interest expense  | 50.3                           | 46.8      | 98.7                         | 88.1      |
| <b>INCOME BEFORE TAXES AND MINORITY INTEREST</b>  |                                |           |                              |           |
| Income before taxes and minority interest   | 130.8                          | 58.7      | 330.8                        | 120.7     |
| Income taxes  | 36.6                           | 8.3       | 98.3                         | 17.4      |
| Minority interest (a)   | (.4)                           | 2.8       | 2.3                          | 5.1       |
| <b>NET INCOME</b>   |                                |           |                              |           |
|   | \$94.6                         | \$47.6    | \$230.2                      | \$98.2    |
| <b>BASIC EARNINGS PER COMMON SHARE</b>  |                                |           |                              |           |
|   | \$.44                          | \$.22     | \$1.07                       | \$.46     |
| <b>DILUTED EARNINGS PER COMMON SHARE</b>  |                                |           |                              |           |
|   | \$.43                          | \$.22     | \$1.05                       | \$.46     |
| <b>WEIGHTED AVERAGE NUMBER OF COMMON SHARES (in millions)</b>                           |                                |           |                              |           |
|   | 214.5                          | 213.3     | 214.4                        | 213.2     |
| <b>WEIGHTED AVERAGE NUMBER OF COMMON AND COMMON EQUIVALENT SHARES (in millions) (b)</b> |                                |           |                              |           |
|   | 218.9                          | 215.4     | 218.4                        | 215.5     |
| <b>DIVIDENDS DECLARED PER COMMON SHARE - Cash</b>                                       |                                |           |                              |           |
|   | \$.19                          | \$.18     | \$.38                        | \$.36     |

(a) Minority interest primarily includes before-tax amounts.

(b) The dilution of earnings per common share is due mainly to the impact of unexercised stock options.

The accompanying notes are an integral part of these statements.

AIR PRODUCTS AND CHEMICALS, INC. and Subsidiaries  
CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME  
(Unaudited)

(Millions of dollars)

|   | Three Months Ended<br>31 March |        | Six Months Ended<br>31 March |         |
|---|--------------------------------|--------|------------------------------|---------|
|   | 2001                           | 2000   | 2001                         | 2000    |
| NET INCOME  | \$94.6                         | \$47.6 | \$230.2                      | \$98.2  |
| OTHER COMPREHENSIVE INCOME<br>(LOSS), net of tax  |                                |        |                              |         |
| Unrealized holding gains/(losses) on<br>investments arising during the<br>period                    | .5                             | 1.3    | (.3)                         | (2.7)   |
| Foreign currency translation<br>adjustments:  |                                |        |                              |         |
| Consolidated subsidiaries and<br>joint ventures   | (93.9)                         | (34.9) | (68.5)                       | (104.0) |
| Cumulative effect of a change in<br>accounting for hedges of net<br>investments in foreign entities | --                             | --     | (1.7)                        | --      |
| Transaction gains (losses) resulting<br>from hedges of net investments in<br>foreign entities       | 34.2                           | 16.4   | (7.1)                        | 40.7    |
| Total foreign currency translation<br>adjustments   | (59.7)                         | (18.5) | (77.3)                       | (63.3)  |
| Cash flow hedges:   |                                |        |                              |         |
| Cumulative effect of a change in<br>accounting for cash flow hedges                                 | --                             | --     | (.8)                         | --      |
| Net gains arising during the period   | 5.6                            | --     | 8.1                          | --      |
| Reclassification adjustment for<br>(losses) reclassified into income                                | (5.7)                          | --     | (6.0)                        | --      |
| Net gains on cash flow hedges   | (.1)                           | --     | 1.3                          | --      |
| TOTAL OTHER COMPREHENSIVE (LOSS)  | (59.3)                         | (17.2) | (76.3)                       | (66.0)  |
| COMPREHENSIVE INCOME  | \$35.3                         | \$30.4 | \$153.9                      | \$32.2  |

The accompanying notes are an integral part of these statements.

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

(Millions of dollars)

|  | Six Months Ended<br>31 March |                |
|--|------------------------------|----------------|
|  | 2001                         | 2000           |
| <b>OPERATING ACTIVITIES</b>  |                              |                |
| Net Income   | \$230.2                      | \$98.2         |
| Adjustments to reconcile income to cash provided by operating activities:          |                              |                |
| Depreciation   | 291.7                        | 276.3          |
| Impairment of long-lived assets  | 6.4                          | --             |
| Deferred income taxes  | 7.1                          | 12.9           |
| Loss on BOC transaction  | --                           | 201.3          |
| Undistributed (earnings) of unconsolidated affiliates                              | (19.9)                       | (25.5)         |
| (Gain) on sale of assets and investments   | (.6)                         | (10.9)         |
| Other  | (14.6)                       | 35.9           |
| Working capital changes that provided (used) cash, net of effects of acquisitions: |                              |                |
| Trade receivables  | (82.2)                       | (41.5)         |
| Inventories and contracts in progress  | (37.9)                       | 6.8            |
| Payables, trade and other  | 1.6                          | 30.7           |
| Other  | (1.9)                        | (82.6)         |
| <b>CASH PROVIDED BY OPERATING ACTIVITIES</b>                                       | <b>379.9</b>                 | <b>501.6</b>   |
| <b>INVESTING ACTIVITIES</b>  |                              |                |
| Additions to plant and equipment (a)   | (302.3)                      | (378.6)        |
| Acquisitions, less cash acquired (b)   | --                           | (168.7)        |
| Investment in and advances to equity affiliates                                    | (26.5)                       | (16.5)         |
| Proceeds from sale of assets and investments                                       | 32.2                         | 30.0           |
| Other  | 23.0                         | (15.3)         |
| <b>CASH USED FOR INVESTING ACTIVITIES</b>  | <b>(273.6)</b>               | <b>(549.1)</b> |
| <b>FINANCING ACTIVITIES</b>  |                              |                |
| Long-term debt proceeds  | 54.4                         | 507.5          |
| Payments on long-term debt   | (21.4)                       | (369.6)        |
| Net (decrease) increase in commercial paper and other short-term borrowings        | (25.7)                       | 10.5           |
| Purchase of treasury stock   | (50.0)                       | --             |
| Dividends paid to shareholders   | (81.5)                       | (76.8)         |
| Other  | 27.0                         | 1.8            |
| <b>CASH (USED FOR) PROVIDED BY FINANCING ACTIVITIES</b>                            | <b>(97.2)</b>                | <b>73.4</b>    |
| Effect of Exchange Rate Changes on Cash  | (2.6)                        | 5.2            |
| Increase in Cash and Cash Items  | 6.5                          | 31.1           |
| Cash and Cash Items - Beginning of Year  | 94.1                         | 61.6           |
| Cash and Cash Items - End of Period  | <b>\$100.6</b>               | <b>\$92.7</b>  |

(a) Excludes capital lease additions of \$.5 million and \$16.0 million in fiscal 2001 and 2000, respectively.

(b) Excludes \$24.2 million of long-term debt assumed in acquisitions in fiscal 2000.

The accompanying notes are an integral part of these statements.

AIR PRODUCTS AND CHEMICALS, INC. and Subsidiaries  
SUMMARY BY BUSINESS SEGMENTS  
(Unaudited)

Business segment information is shown below:

(Millions of dollars)

|  | Three Months Ended<br>31 March |            | Six Months Ended<br>31 March |            |
|--|--------------------------------|------------|------------------------------|------------|
|  | 2001                           | 2000       | 2001                         | 2000       |
| -----  |                                |            |                              |            |
| Revenues from external customers                       |                                |            |                              |            |
| Gases  | \$1,043.2                      | \$842.1    | \$2,035.4                    | \$1,622.7  |
| Equipment  | 64.8                           | 53.8       | 120.6                        | 104.4      |
| Chemicals  | 390.3                          | 451.3      | 783.6                        | 884.5      |
| -----  |                                |            |                              |            |
| Segment Totals   | 1,498.3                        | 1,347.2    | 2,939.6                      | 2,611.6    |
| -----  |                                |            |                              |            |
| Consolidated Totals                                    | \$1,498.3                      | \$1,347.2  | \$2,939.6                    | \$2,611.6  |
| -----  |                                |            |                              |            |
| Operating income                                       |                                |            |                              |            |
| Gases  | \$156.8                        | \$171.0    | \$348.2                      | \$324.3    |
| Equipment  | 3.5                            | 5.6        | 4.6                          | 6.8        |
| Chemicals  | 18.5                           | 50.0       | 55.5                         | 101.6      |
| -----  |                                |            |                              |            |
| Segment Totals   | 178.8                          | 226.6      | 408.3                        | 432.7      |
| -----  |                                |            |                              |            |
| Corporate research and development and other (expense) | (14.6)                         | (7.7)      | (16.6)                       | (17.6)     |
| -----  |                                |            |                              |            |
| Consolidated Totals                                    | \$164.2                        | \$218.9    | \$391.7                      | \$415.1    |
| -----  |                                |            |                              |            |
| Operating income (excluding special items)             |                                |            |                              |            |
| Gases  | \$183.1(a)                     | \$164.7(c) | \$374.5(a)                   | \$318.0(c) |
| Equipment  | 3.5                            | 5.6        | 4.6                          | 6.8        |
| Chemicals  | 23.1(b)                        | 58.7(d)    | 60.1(b)                      | 110.3(d)   |
| -----  |                                |            |                              |            |
| Segment Totals   | 209.7                          | 229.0      | 439.2                        | 435.1      |
| -----  |                                |            |                              |            |
| Corporate research and development and other (expense) | (8.6)(e)                       | (7.7)      | (10.6)(e)                    | (17.6)     |
| -----  |                                |            |                              |            |
| Consolidated Totals                                    | \$201.1                        | \$221.3    | \$428.6                      | \$417.5    |
| -----  |                                |            |                              |            |
| Equity affiliates' income                              |                                |            |                              |            |
| Gases  | \$16.6                         | \$17.8     | \$35.3                       | \$34.2     |
| Equipment  | .2                             | .5         | .9                           | .8         |
| Chemicals  | --                             | 3.1        | 1.5                          | 6.7        |
| -----  |                                |            |                              |            |
| Segment Totals   | 16.8                           | 21.4       | 37.7                         | 41.7       |
| -----  |                                |            |                              |            |
| Other  | .1                             | (.1)       | .1                           | (.1)       |
| -----  |                                |            |                              |            |
| Consolidated Totals                                    | \$16.9                         | \$21.3     | \$37.8                       | \$41.6     |
| -----  |                                |            |                              |            |

(Millions of dollars)

|                     | 31 March  |           |
|---------------------|-----------|-----------|
|                     | 2001      | 2000      |
| Total assets        |           |           |
| Gases               | \$6,368.7 | \$6,243.1 |
| Equipment           | 232.8     | 217.2     |
| Chemicals           | 1,510.8   | 1,712.7   |
| Segment Totals      | 8,112.3   | 8,173.0   |
| Corporate assets    | 172.2     | 397.3     |
| Consolidated Totals | \$8,284.5 | \$8,570.3 |

|   | Twelve Months Ended<br>31 March |       |
|---|---------------------------------|-------|
|   | 2001                            | 2000  |
| Operating Return On Net Assets (ORONA)(f) |                                 |       |
| Gases                                     | 12.9%                           | 10.8% |
| Equipment                                 | 6.3%                            | 4.7%  |
| Chemicals                                 | 9.6%                            | 12.8% |
| Segment Totals                            | 12.0%                           | 11.0% |
| Consolidated Totals                       | 11.3%                           | 10.1% |

- (a) The results for the three and six months ended 31 March 2001 exclude a cost reduction charge of \$26.3 million.
- (b) The results for the three and six months ended 31 March 2001 exclude a cost reduction charge of \$4.6 million.
- (c) The results for three and six months ended 31 March 2000 exclude a gain on the sale of packaged gas facilities of \$6.3 million.
- (d) The results for three and six months ended 31 March 2000 exclude a cost reduction charge of \$8.7 million.
- (e) The results for the three and six months ended 31 March 2001 exclude a litigation settlement charge of \$6.0 million.
- (f) Operating return on net assets (ORONA) is calculated as the rolling four quarter sum of operating income divided by the rolling five quarter average of total assets less investments in equity affiliates. The ORONA calculation excludes all special items impacting operating income.

A reconciliation of total segment operating income to consolidated income before income taxes and minority interest is as follows:

(Millions of dollars)

|   | Three Months Ended<br>31 March |         | Six Months Ended<br>31 March |         |
|---|--------------------------------|---------|------------------------------|---------|
|   | 2001                           | 2000    | 2001                         | 2000    |
| Total segment operating income                                  | \$178.8                        | \$226.6 | \$408.3                      | \$432.7 |
| Corporate research and development and other (expense)          | (14.6)                         | (7.7)   | (16.6)                       | (17.6)  |
| Consolidated operating income                                   | 164.2                          | 218.9   | 391.7                        | 415.1   |
| Equity affiliates' income                                       | 16.9                           | 21.3    | 37.8                         | 41.6    |
| Loss on currency hedges related to BOC transaction and expenses | --                             | 134.7   | --                           | 247.9   |
| Interest expense  | 50.3                           | 46.8    | 98.7                         | 88.1    |
| Consolidated income before taxes and minority interest          | \$130.8                        | \$58.7  | \$330.8                      | \$120.7 |

AIR PRODUCTS AND CHEMICALS, INC. and Subsidiaries  
SUMMARY BY GEOGRAPHIC REGIONS  
(Unaudited)

(Millions of dollars)

|                                  | Three Months Ended<br>31 March |                  | Six Months Ended<br>31 March |                  |
|----------------------------------|--------------------------------|------------------|------------------------------|------------------|
|                                  | 2001                           | 2000             | 2001                         | 2000             |
| Revenues from external customers |                                |                  |                              |                  |
| United States                    | \$1,018.8                      | \$879.3          | \$1,988.6                    | \$1,718.5        |
| United Kingdom                   | 116.1                          | 124.4            | 218.9                        | 245.5            |
| Spain                            | 78.0                           | 78.9             | 147.8                        | 155.7            |
| Other Europe                     | 152.8                          | 149.1            | 294.0                        | 289.9            |
| <b>Total Europe</b>              | <b>346.9</b>                   | <b>352.4</b>     | <b>660.7</b>                 | <b>691.1</b>     |
| Canada/Latin America             | 56.4                           | 55.0             | 122.3                        | 113.4            |
| Asia                             | 76.2                           | 60.4             | 167.9                        | 88.4             |
| All Other                        | --                             | .1               | .1                           | .2               |
| <b>Total</b>                     | <b>\$1,498.3</b>               | <b>\$1,347.2</b> | <b>\$2,939.6</b>             | <b>\$2,611.6</b> |

Note: Geographic information is based on country of origin. The other Europe segment operates principally in France, Germany, Netherlands, and Belgium.

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

The following table sets forth the computation of basic and diluted earnings per share:

(Millions, except per share)

|  | Three Months Ended<br>31 March |        | Six Months Ended<br>31 March |        |
|--|--------------------------------|--------|------------------------------|--------|
|  | 2001                           | 2000   | 2001                         | 2000   |
| Numerator for basic EPS<br>and diluted EPS-net income                              | \$94.6                         | \$47.6 | \$230.2                      | \$98.2 |
| Denominator for basic EPS<br>-weighted average shares                              | 214.5                          | 213.3  | 214.4                        | 213.2  |
| Effect of diluted securities:  |                                |        |                              |        |
| Employee stock options   | 3.4                            | 1.3    | 3.1                          | 1.5    |
| Other award plans  | 1.0                            | .8     | .8                           | .8     |
|  | 4.4                            | 2.1    | 3.9                          | 2.3    |
| Denominator for diluted EPS<br>-weighted average shares and<br>assumed conversions | 218.9                          | 215.4  | 218.4                        | 215.5  |
| Basic EPS  | \$ .44                         | \$ .22 | \$ 1.07                      | \$ .46 |
| Diluted EPS  | \$ .43                         | \$ .22 | \$ 1.05                      | \$ .46 |

Options on 5.6 million and 10.2 million shares of common stock were not included in computing diluted EPS for the second quarter of fiscal 2001 and 2000, respectively because their effects were antidilutive.

The results for the three and six months ended 31 March 2001 include a charge of \$30.9 million (\$20.0 million after-tax, or \$.09 per share) for a global cost reduction plan. The plan includes 311 position eliminations, resulting in a charge of \$22.4 million for severance and termination benefits. A charge of \$8.5 million was recognized for asset impairments and other related restructuring costs. The restructuring charges included in cost of sales, selling and administrative, and other expense were \$14.4 million, \$9.4 million, and \$7.1 million, respectively. The results for the three and six months ended 31 March 2001, also, include a charge of \$6.0 million (\$3.7 million after-tax, or \$.02 per share) related to a litigation settlement.

Income from equity affiliates, net of related expenses and taxes, contributed \$.07 and \$.09 per share to diluted earnings per share for the three months ended 31 March 2001 and 31 March 2000, respectively. Income from equity affiliates, net of related expenses and taxes, contributed \$.16 and \$.18 per share to diluted earnings per share for the six months ended 31 March 2001 and 31 March 2000, respectively.

The company, The BOC Group plc (BOC) and L'Air Liquide S.A. (Air Liquide) of France announced in July 1999 that they had agreed to the terms of a recommended offer for the share capital of BOC. In May 2000, the company and Air Liquide announced that the

Federal Trade Commission had indicated it would not approve the offer by 12 May 2000, the date on which the period for satisfying the preconditions to the offer would expire, and the offer was not extended beyond 12 May 2000. As a result, certain costs and financing fees that had been deferred were expensed in the third quarter of fiscal 2000.

The results for the three and six months ended 31 March 2000 include a charge of \$134.7 million (\$84.1 million after-tax, or \$.39 per share) and \$247.9 million (\$154.7 million after-tax, or \$.72 per share), respectively, for costs related to the BOC transaction. These costs consist primarily of charges recorded on purchased option and forward exchange contracts entered into to hedge the currency exposure of the BOC transaction.

The results for the three and six months ended 31 March 2000 include a charge of \$8.7 million (\$5.5 million after-tax, or \$.03 per share) for the global cost reduction plan and a gain of \$6.3 million (\$4.0 million after-tax, or \$.02 per share) related to the sale of packaged gas facilities. The restructuring charges included in cost of sales, selling and administrative, and research and development were \$3.3 million, \$4.4 million, and \$1.0 million, respectively.

AIR PRODUCTS AND CHEMICALS, INC. and Subsidiaries  
MANAGEMENT'S DISCUSSION AND ANALYSIS

SECOND QUARTER FISCAL 2001 VS. SECOND QUARTER FISCAL 2000

-----

RESULTS OF OPERATIONS

Consolidated

Sales in the second quarter of fiscal 2001 of \$1,498.3 million were up 11%, or \$151.1 million compared with the same quarter in the prior year. Operating income of \$164.2 million declined \$54.7 million or 25%. Income from equity affiliates was \$16.9 million compared with \$21.3 million in the prior year. Net income was \$94.6 million, or \$.43 diluted earnings per share, compared to net income of \$47.6 million, or \$.22 diluted earnings per share, in the year-ago quarter. The results for the three months ended 31 March 2001 included an after-tax charge of \$20.0 million, or \$.09 per share, for a cost reduction program and an after-tax charge of \$3.7 million, or \$.02 per share, related to a litigation settlement. The quarter ended 31 March 2000 included an after-tax charge of \$84.1 million, or \$.39 per share, for costs related to the "The BOC Group plc" (BOC) transaction. The prior year quarter also included an after-tax charge of \$5.5 million, or \$.03 per share, for a cost reduction program and an after-tax gain of \$4.0 million, or \$.02 per share, related to the sale of packaged gas facilities. Excluding these special items, current year net income of \$118.3 million compares to \$133.2 million in the prior year, a decrease of 11%. Diluted earnings per share excluding special items of \$.54 declined 13% from the prior year. The remaining discussion and analysis of the results of operations excludes the impact of special items. See Summary of Business Segments for details of special items by segment.

Gases -Sales increased 24% to \$1,043.2 million in the second quarter of fiscal 2001. Natural gas cost pass-through added 13% to sales growth, while unfavorable currency impacts reduced sales growth about 3%. The balance of the sales increase was principally due to higher shipments to the electronics market.

Electronics volume growth continued with strong global demand for specialty gases, particularly nitrogen trifluoride (NF3), tungsten hexafluoride (WF6), the Solkatronic Brand products, and the Schumacher specialty chemicals. Chemical and processing industries (CPI) tonnage volume declined 4% globally from the prior year, primarily as the result of lower gaseous oxygen/nitrogen (GOX/GAN) volume. GOX/GAN volume was impacted by customer outages and the rapid rise in natural gas cost.

Liquid bulk volume declined 2% in North America as demand softened, particularly in steel and metal processing. Same store cylinder volume declined 1% on weakness in the automotive market. The average price for liquid oxygen/nitrogen (LOX/LIN) increased 8% with about half the increase resulting from price increase and surcharge initiatives.

In spite of the strong U.S. dollar, overall European gases operations improved over the prior year quarter. The liquid bulk volume index was flat as weakness in the United Kingdom offset gains on the continent. The European LOX/LIN price index was up 1% from the prior year, reflecting the price increase and the Service Plus program initiatives. Cylinder volume declined 1% primarily due to weak industrial activity in the United Kingdom. Specialty gas and helium cylinder sales increased year-on-year.

Liquid bulk volume increased 18% in Asia with strong growth in China and Korea.

Higher volume in electronics and improved operating performance in CPI drove the 11% increase in operating income to \$183.1 million. Excluding unfavorable currency and exchange related effects, operating income improved 14%. The operating margin was 17.6%, down 2.0% from the prior year. Excluding the unfavorable margin impact of higher natural gas cost pass-through revenues, the operating margin was essentially unchanged from the prior year.

Equipment- Sales were \$64.8 million, up \$11.0 million from the prior year. Operating income of \$3.5 million declined \$2.1 million from the prior year due to an unfavorable project mix. The sales backlog at 31 March 2001 was \$104 million compared to \$121 million at 31 March 2000.

Chemicals- Sales in the second quarter of fiscal 2001 were \$390.3 million compared to \$451.3 million in the prior year, down 14%. Excluding the impact of the divested polyvinyl alcohol (PVOH) business, sales declined 3%. Sales growth was reduced 1% due to unfavorable currency impacts. The overall volume decline was 9%, excluding the impact of PVOH. The volume decline resulted from the slowing economy, lost market share due to price increases, and customer outages.

Performance chemicals experienced an overall 9% volume decline. Emulsions declined globally due to market share loss in response to price increases as well as a general economic slowdown. Epoxy additives volume grew modestly, while specialty additives and polyurethane additives declined on market weakness. Chemical intermediates volume declined 8% as shipments of polyurethane intermediates were reduced due to customer outages. The amines volume was impacted by market share loss in response to price increases and a customer outage.

Operating income of \$23.1 million declined 61%, or \$35.6 million from the prior year. About two thirds of the decline resulted from lower volumes and one third resulted from higher natural gas costs. Aggressive price increases have been partially successful in recovering the rapid rise in costs. The operating margin of 5.9% declined from 13.0% in the prior year.

Equity affiliates' income declined \$3.1 million as the emulsions business experienced global volume and margin pressure.

#### INTEREST

Interest expense of \$50.3 million increased \$3.5 million, or 7% over the prior year. The increase primarily resulted from lower capitalized interest.

#### INCOME TAXES

The effective tax rate for the second quarter of fiscal 2001 was 27.8%, after minority interest. The effective rate excluding the impact of special items was 29.6%. The comparable rate in the prior year was 31.0%. The 1.4% decrease was due to increased tax credits and adjustments.

## GLOBAL COST REDUCTION

The results for the quarter ended 31 March 2001 include a charge of \$30.9 million, or \$20.0 million after-tax, for a global cost reduction plan. The plan includes 311 staff position reductions resulting in a charge of \$22.4 million for severance and termination benefits. A charge of \$8.5 million was recognized primarily for asset impairments and restructuring expenses related to the rationalization of several facilities. The charges to cost of sales, selling and administrative, and other expense were \$14.4 million, \$9.4 million, and \$7.1 million, respectively. Asset impairments and other restructuring expenses totaling \$7.8 million were incurred in the fiscal quarter and \$23.1 million reflected in accrued liabilities at 31 March 2001. Benefits from the plan are expected to be approximately \$9 million in fiscal years 2002 and 2003, respectively.

Staff reductions related to the charge recognized in the current fiscal quarter will be completed by 31 March 2002. Of the 311 position eliminations in the plan, 120 are related to restructuring of customer service centers and regional management centers at Carbueros Metalicos SA. (Carbueros) in Spain. The total Carbueros initiative requires information system investments prior to completing the restructuring. Therefore, the company anticipates an additional charge for restructuring and related expenses for the Carbueros initiative of about \$11 million in the fourth quarter of fiscal 2001.

The company announced a global cost reduction plan in the fiscal quarter ended 31 March 2000, providing for a reduction of 103 staff positions. The plan which resulted in a charge of \$8.7 million, or \$5.5 million after-tax, was completed essentially as expected in the quarter ended 31 March 2001.

AIR PRODUCTS AND CHEMICALS, INC. and Subsidiaries  
MANAGEMENT'S DISCUSSION AND ANALYSIS

SIX MONTHS FISCAL 2001 VS. SIX MONTHS FISCAL 2000

---

RESULTS OF OPERATIONS

Consolidated

Sales for the six months ended 31 March 2001 of \$2,939.6 million were 13% higher than the \$2,611.6 million reported in the prior year. Operating income of \$391.7 million declined \$23.4 million, or 6% versus prior year. Income from equity affiliates was \$37.8 million compared with \$41.6 million in the prior year. Net income was \$230.2 million, or \$1.05 diluted earnings per share, compared to net income of \$98.2 million, or \$.46 diluted earnings per share, in the first six months of the prior year. The results for the six months ended 31 March 2001 included an after-tax charge of \$20.0 million, or \$.09 per share, for a cost reduction program and an after-tax charge of \$3.7 million, or \$.02 per share, related to a litigation settlement. The six months ended 31 March 2000 included an after-tax charge of \$154.7 million, or \$.72 per share, for costs related to the BOC transaction. These costs consisted principally of charges recorded on purchased option and forward exchange contracts entered into to hedge the currency exposure of the transaction. The results of the first six months of the prior year also included an after-tax charge of \$5.5 million, or \$.03 per share, for a cost reduction program and an after-tax gain of \$4.0 million, or \$.02 per share, related to the sale of packaged gas facilities. Excluding these special items, current year net income of \$253.9 million was essentially equal to that of the prior year. Diluted earnings per share excluding special items of \$1.16 declined 2% from the prior year. The remaining discussion and analysis of the results of operations excludes the impact of special items. See Summary of Business Segments for details of special items by segment.

Gases- Sales of \$2,035.4 million increased 25%, or \$412.7 million, over the first six months of fiscal 2000. Natural gas cost pass-through added 10% to sales growth. Unfavorable currency impacts reduced sales growth by 4%, while the consolidation of Korea Industrial Gases (KIG) contributed 2% to sales growth. The balance of the sales increase was principally due to higher shipments to the electronics market.

Electronics volume growth resulted from strong global demand for specialty gases and chemicals. Recently completed and announced additions to NF3 and WF6 specialty gases production capacity are critical to sustained growth. Overall CPI tonnage volume grew 1% as increased hydrogen and carbon monoxide (HYCO) demand was largely offset by weakness in GOX/GAN.

The liquid bulk volume index in North America was essentially unchanged year-on-year. Cylinder volume declined 2%. Weakness in the steel, metals processing, and automotive end markets impacted both liquid bulk and cylinder volumes. Average LOX/LIN prices increased 8% as a result of pricing and surcharge initiatives. The surcharge recovery somewhat lags the increased fuel and energy cost increases.

In spite of the strong U.S. dollar, overall European gases operations improved in the current year. The liquid bulk volume index increased slightly as weakness in the United Kingdom offset gains on the continent. The LOX/LIN price also increased slightly from the prior year.

Liquid bulk volume in Asia grew about 20%. About half of this favorable variance was due to consolidation of KIG.

Higher volume in electronics and improved operating performance in CPI drove the 18% increase in operating income. Unfavorable currency and exchange related effects reduced operating income growth by 4%. The operating margin in the first six months of fiscal 2001 was 18.4% compared to 19.6% in the prior year. Excluding the unfavorable margin impact of the natural gas cost pass-through on revenues, the operating margin in the current year was 20.0%, up 0.4% over the prior year.

Equipment- Sales of \$120.6 million rose \$16.2 million from the prior year. Operating income of \$4.6 million declined \$2.2 million from the prior year due to an unfavorable project mix. The \$104 million sales backlog at 31 March 2001 compared to \$131 million at 31 December 2000 and \$149 million at 30 September 2000. A significant increase in the sales backlog in the second six months of fiscal 2001 is anticipated in the LNG business area.

Chemicals- Sales in the first six months of fiscal 2001 were \$783.6 million compared to \$884.5 million in the prior year, down 11%. Excluding the impact of the divested PVOH business, sales declined 1% from prior year. Sales growth was reduced 1% due to unfavorable currency impacts. The overall volume decline was 6%, excluding the impact of PVOH. The volume decline resulted from the slowing economy, lost market share due to price increases, and customer outages.

Performance chemicals experienced an overall 8% volume decline. Emulsions declined globally due to market share loss in response to price increases as well as a general economic slowdown. Epoxy additives volume grew modestly, while specialty additives and polyurethane additives declined on market weakness. Chemical intermediates volume declined 4%. Polyurethane intermediates were down slightly year-on-year. The amines volume was impacted by market share loss in response to price increases and a customer outage.

Operating income of \$60.1 million declined 46%, or \$50.2 million from the prior year. Lower volumes and higher raw material and energy costs drove the significant decline in operating income. Aggressive price increases have been partially successful in recovering the rapid rise in costs. Unfavorable currency and exchange related effects reduced operating income about 6%. The operating margin of 7.7% declined from 12.5% in the prior year.

Equity affiliates' income declined \$5.2 million as the emulsions business experienced global volume and margin pressure.

#### INTEREST

Interest expense of \$98.7 million increased \$10.6 million, or 12% over the prior year. The increase primarily resulted from lower capitalized interest.

#### INCOME TAXES

The effective tax rate for the first six months of fiscal 2001 was 29.9%, after minority interest of \$2.3 million. The effective rate excluding the impact of special items was 30.5%, equal to the comparable rate in the prior year.

## GLOBAL COST REDUCTION

The results for the six months ended 31 March 2001 include a before-tax charge of \$30.9 million for a global cost reduction program initiated in the quarter ended 31 March 2001.

The cost reduction program in fiscal 2000 included staff reductions of 450 employees and resulted in a before-tax charge of \$47.9 million. This charge was recognized in the second and third quarters of fiscal 2000. The plan phase initiated in the second quarter of fiscal 2000 was completed essentially as expected as of 31 March 2001. As of 31 March 2001, there have been 366 positions eliminated with completion of the full fiscal 2000 plan expected by 30 June 2001. Expenses of \$42.3 million have been incurred with \$5.6 million remaining in accrued liabilities.

## LIQUIDITY AND CAPITAL RESOURCES

Capital expenditures during the first six months of fiscal 2001 totaled \$329.3 million compared to \$604.0 million in the corresponding period of the prior year. Additions to plant and equipment decreased from \$378.6 million during the first six months of fiscal 2000 to \$302.3 million during the current period. Investments in unconsolidated affiliates were \$26.5 million during the first six months of fiscal 2001 versus \$16.5 million last year. There were no expenditures for acquisitions during the current period compared to expenditures of \$168.7 million during the first six months of fiscal 2000. The prior year amount included the acquisition of the remaining 51.1 percent of the shares in KIG, the largest industrial gas company in Korea. Capital expenditures are expected to be approximately \$800 million in fiscal 2001. It is anticipated these expenditures will be funded with cash from operations.

Total debt at 31 March 2001 and 30 September 2000, expressed as a percentage of the sum of total debt, shareholders' equity, and minority interest, was 50% and 51%, respectively. Total debt decreased from \$3,045.0 million at 30 September 2000 to \$3,026.7 million at 31 March 2001.

There was \$77.0 million of commercial paper outstanding at 31 March 2001. The company's total revolving credit commitments amounted to \$600.0 million at 31 March 2001. During fiscal 2000, the company had an additional \$500.0 million revolving credit commitment which matured in October 2000. No borrowings were outstanding under these commitments. Additional commitments totaling \$71.2 million are maintained by the company's foreign subsidiaries, of which \$21.4 million was utilized at 31 March 2001.

The estimated fair value of the company's long-term debt, including current portion, as of 31 March 2001 is \$3,019.4 million compared to a book value of \$2,817.6 million.

On 25 January 2001, the company announced its intention to reactivate its share repurchase program. Through the first six months of fiscal 2001, the company has repurchased \$50 million of its shares. Based on its current outlook, the company expects to purchase approximately \$100 million of the company's shares during fiscal 2001.

## 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 release are based on current expectations regarding important risk factors. Actual results may differ materially from those expressed. Factors that might cause forward-looking statements to differ materially from actual results include, among other things, overall economic and business conditions; demand and timing of the placing of orders for the goods and services of Air Products; competitive factors in the industries in which it competes; whether prices of natural gas and other raw materials fall in the second half of fiscal 2001; the ability to recover increased energy and raw material costs from customers; the availability of utilities, particularly in California, to provide electrical power; changes in government regulations; success of implementing cost reduction programs; the timing, impact and other uncertainties of future acquisitions or divestitures; fluctuations in interest rates and foreign currencies; the impact of tax and other legislation and regulations in the jurisdictions in which Air Products and its affiliates operate; and the timing and rate at which tax credits can be utilized.

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 25 January 2001.
- b. The following directors were elected at the meeting: James F. Hardymon, Charles H. Noski, Paula G. Rosput, and Lawrason D. Thomas. Directors whose term of office continued after the meeting include: Robert Cizik, Ursula F. Fairbairn, John P. Jones III, Mario L. Baeza, L. Paul Bremer III, Edward E. Hagenlocker, and Terry R. Lautenbach.
- c. The following matters were voted on at the Annual Meeting:
  1. Election of Directors

| NAME OF DIRECTOR | NUMBER OF VOTES CAST |                           |             |                         |
|------------------|----------------------|---------------------------|-------------|-------------------------|
|                  | FOR                  | AGAINST<br>OR<br>WITHHELD | ABSTENTIONS | BROKER<br>NON-<br>VOTES |
| J. F. Hardymon   | 206,273,279          | 2,302,838                 | 0           | 0                       |
| C. H. Noski      | 206,234,821          | 2,341,296                 | 0           | 0                       |
| P. G. Rosput     | 206,184,521          | 2,391,596                 | 0           | 0                       |
| L. D. Thomas     | 206,244,213          | 2,331,904                 | 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 2001.

| NUMBER OF VOTES CAST |                           |             |                     |
|----------------------|---------------------------|-------------|---------------------|
| FOR                  | AGAINST<br>OR<br>WITHHELD | ABSTENTIONS | BROKER<br>NON-VOTES |
| 207,079,466          | 626,457                   | 870,194     | 0                   |

3. Approval of 2002 Amendments to the Long-Term Incentive Plan.

| NUMBER OF VOTES CAST |                           |             |                     |
|----------------------|---------------------------|-------------|---------------------|
| FOR                  | AGAINST<br>OR<br>WITHHELD | ABSTENTIONS | BROKER<br>NON-VOTES |
| 195,483,375          | 11,201,934                | 1,8         | 0                   |

4. Approval of the Internal Revenue Code 162(M) Annual Incentive Plan Terms

| NUMBER OF VOTES CAST |                           |             |                     |
|----------------------|---------------------------|-------------|---------------------|
| FOR                  | AGAINST<br>OR<br>WITHHELD | ABSTENTIONS | BROKER<br>NON-VOTES |
| 201,291,342          | 5,244,145                 | 2,040,630   | 0                   |

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

- (a)(10.1) Form of Severance Agreement which the Company has with one European Executive Officer dated 16 September 1999.
- (a)(10.2) Amendment to form of Severance Agreement with one European Executive Officer dated 26 February 2001.
- (a)(10.3) Letter dated 19 April 2000, covering pension for a European Executive Officer.
- (a)(12) Computation of Ratios of Earnings to Fixed Charges.
- (b) Current Reports on Form 8-K dated 22 January 2001 and 25 January 2001, in which Item 5 of such forms was reported, and 19 March 2001, in which Item 5 and Item 9 of such forms was reported, were filed by the Registrant during the quarter ended 31 March 2001.

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 11, 2001

By: /s/L. J. Daley  
-----  
L. J. Daley  
Vice President - Finance and Controller  
(Chief Financial Officer)

16 September 1999

Leonard Broese van Groenou  
23 Oatlands Close  
Weybridge  
Surrey KT13 9EE  
England

Dear Leonard:

Air Products and Chemicals, Inc. ("Air Products") considers a sound and vital management to be essential to protecting and enhancing its best interests and those of its shareholders. In this connection, Air Products recognizes that, as is the case with any publicly held corporation, the possibility of a change in control of Air Products may develop, although no such change is now expected or contemplated.

The Management Development and Compensation Committee of the Air Products Board of Directors and the Board believe it imperative that the Company and the Board be able to rely upon key members of the Company's management to continue in their positions and to act in the best financial interests of Air Products shareholders in the event of a bid, offer or proposal to take control of Air Products and following any change in control of Air Products. Therefore, the Committee and the Board have determined that appropriate steps should be taken to protect key members of the Company's management against significant negative personal financial consequences that might result from a change in control, and to reinforce and encourage the continued attention and dedication of such key members of management to their duties without distraction should the possibility of a change in control of Air Products ever arise.

In order to induce you to remain in the employ of Air Products PLC, an indirect, wholly owned subsidiary of Air Products organized and existing under the laws of the United Kingdom ("APPLC"), and to assure your continued dedication and the availability of your advice and counsel during the possibility and pendency of, and following, a change in the control of Air Products, Air Products agrees that it will provide you, or cause you to be provided the severance benefits set forth in this severance agreement ("the Agreement") in the event your employment with the Company is terminated subsequent to a Change in Control under the circumstances described herein.

1. DEFINITIONS

"Act" means the Securities Exchange Act of 1934.

"Annual Incentive Plan" shall mean the Air Products and Chemicals, Inc. 1997 Annual Incentive Plan and/or any similar, successor or substitute short-term bonus plan, program or pay practice.

1

"Base Salary" shall mean your total annual salary payable by the Company in accordance with its normal compensation practices.

"Board" shall mean the Board of Directors of Air Products.

"Cause" shall mean either of the following:

- (A) The willful and continued failure by you to substantially perform your duties with the Company (other than any such failure resulting from your incapacity due to physical or mental illness or injury or any such actual or anticipated failure after the issuance by you of a Termination Notice for Good Reason), over a period of not less than sixty days after a demand for substantial performance is delivered to you by the Board which specifically identifies the manner in which the Board believes that you have not substantially performed your duties; or
- (B) The willful engaging by you in gross misconduct materially and demonstrably injurious to the Company; provided that no act or failure to act on your part will be considered willful if done, or omitted to be done, by you in good faith and with reasonable belief that your action or omission was in the best interest of the Company, or if any member of the Board who was not a party to such act or omission had actual knowledge of it for at least twelve months.

"Change in Control" shall mean the first to occur of:

- A. Stock Acquisition. Any "person", as such term is used in Sections 13(d) and 14(d) (2) of the Act, other than Air Products, or any corporation a majority of whose outstanding stock entitled to vote is owned, directly or indirectly, by Air Products (a "Subsidiary"), or a trustee of an employee benefit plan sponsored solely by Air Products and/or such a Subsidiary, is or becomes, other than by purchase from Air Products or such a Subsidiary, the "beneficial owner", as such term is defined in Rule 13d-3 under the Act, directly or indirectly, of securities of Air

Products representing 20% or more of the combined voting power of Air Products' then outstanding voting securities. Such a Change in Control will be deemed to have occurred on the first to occur of: the date securities are first purchased by a tender or exchange offeror, the date upon which Air Products first learns of the acquisition of 20% or more of such securities, or the later of the effective date of an agreement for the merger, consolidation or other reorganization of Air Products, or the date of approval thereof by a majority of Air Products' shareholders.

- B. Change in Board. During any period of two consecutive years, individuals who at the beginning of such period were members of the Board cease for any reason to constitute at least a majority thereof, unless the election or nomination for election by Air Products' shareholders of each new director was approved by a vote of at least two-thirds of the directors then still in office who were directors at the beginning of the period. Such a Change in Control will be deemed to have occurred on the date upon which the requisite majority of directors fails to be elected by the shareholders of Air Products.
- C. Other Events. Any other event or series of events which, notwithstanding any other provision of this definition to the contrary, is determined, by a majority of the outside

members of the Board serving in office at the time such event or events occur, to constitute a Change in Control of Air Products for purposes of this Agreement. Such a Change in Control will be deemed to have occurred on the date of such determination or on such other date as said majority of outside members of the Board shall specify.

Notwithstanding the foregoing, there shall not be a Change in Control if, in advance of such event, you agree in writing that such event shall not constitute a Change in Control.

"Code" means the Internal Revenue Code of 1986, as amended from time to time.

"Committee" means the Management Development and Compensation Committee of the Board or a successor Committee of the Board.

"Common Stock" means the common stock, \$1 par value, of Air Products.

"Company" means Air Products and any successor in interest thereto, and any affiliate of Air Products in which it holds, directly or indirectly, a controlling interest and to whom your employment has been transferred with your consent, and shall mean Air Products and APPLC jointly or severally, as the context requires, during any period of time in which your Dual Employment Contracts are in effect.

"Contract Period" shall mean the period commencing on a Change in Control and ending three years following the Change in Control.

"Disability" shall exist where, as a result of your incapacity due to physical or mental illness or injury you have been absent from the performance of your duties with the Company for at least six consecutive months.

"Fiscal Year" shall mean the fiscal year of the Company which commences on October 1 of each calendar year and ends on September 30 of the following calendar year, or such other fiscal year as the Company may adopt for keeping its financial records.

"Good Reason" shall mean the occurrence of any of the following without your consent:

- A. An adverse change, during the Contract Period, in your aggregate positions or offices with the Company, or a diminution in the aggregate duties, reporting responsibilities and authority with the Company which you held and performed during the ninety-day period immediately preceding the beginning of the Contract Period, or an assignment to you of duties or responsibilities, which, in your reasonable judgment, are not consistent with your status or positions with the Company immediately prior to the Change in Control; provided that, any of the foregoing in connection with Termination of your Employment for Cause, Retirement or Disability shall not constitute Good Reason. Notwithstanding the above, it is understood that should you be asked to perform duties and to devote your full-time services in a position wholly within the Company but not within APPLC, that elimination of your employment with and duties specific to APPLC will not be considered a termination of your employment under, or of, this Agreement.

- B. The failure by the Company to pay you a Base Salary, in substantially equal installments conforming with the Company's normal pay practices, at a rate at least equal to your Base Salary rate in effect immediately before the beginning of the Contract Period or a failure to increase such Base Salary each year, beginning one year after the last increase in your Base Salary occurring before the beginning of the Contract Period, by an amount which at least equals, on a percentage basis, the average annual percentage increase in your Base Salary during the three full Fiscal Years immediately preceding the beginning of the Contract Period; provided, however, that the Company may reduce your Base Salary or adjust your Base Salary on a smaller percentage basis if such reduction or adjustment is no less favorable to you on a percentage basis than the average annual percentage reduction or adjustment during the applicable Fiscal Year for all Highly Compensated Employees.
- C. The failure by the Company to continue the Annual Incentive Plan and/or initiate and maintain other plans, programs or practices providing you with benefits substantially similar in type and amount to those under the Annual Incentive Plan, or a failure to pay you bonus awards each year during the Contract Period under the Annual Incentive Plan or such similar bonus plan (together, the "Bonus Plans"), beginning no later than one year after the date of your last grant under the Annual Incentive Plan before the beginning of the Contract Period, at least equal in amount to the average of the bonus awards granted to you under the Annual Incentive Plan during and/or for each of the three full Fiscal Years immediately preceding the beginning of the Contract Period; provided, however, that the Company may reduce or adjust your bonus awards paid each year to a lower amount if such reduction or adjustment is on a basis no less favorable to you than the basis upon which it reduces or adjusts awards under the Bonus Plans or comparable plans for all Highly Compensated Employees during the applicable Fiscal Year;
- D. The failure by the Company to continue the Long Term Incentive Plan and/or initiate and maintain other plans, programs or practices providing you with benefits substantially similar in type and amount to those under the Long Term Incentive Plan or a failure to grant you awards each year under the Long Term Incentive Plan and/or such similar incentive plans (together, the "Incentive Plans"), beginning one year after your last grant under the Long Term Incentive Plan before the beginning of the Contract Period, at a level at least equal in the aggregate to the average value, determined based on valuation models normatively used by publicly held corporations of similar size to the Company in setting long term incentive compensation levels, of your aggregate annual awards granted each year under the Long Term Incentive Plan during and/or for the last three Fiscal Years preceding the beginning of the Contract Period; provided, however, that if the Company provides the Incentive Plans or comparable plans for Highly Compensated Employees, the Company may maintain the level of awards granted to you each year under the Incentive Plans at a lower value if such benefits are determined on a basis no less favorable to you than for all Highly Compensated Employees during the applicable Fiscal Year.
- E. The failure by the Company to pay you in respect of any of your deferred or other awards under the Bonus Plans or the Incentive Plans when due and payable under the terms of said Plans;

- F. The failure by the Company to pay (or reimburse you for) all reasonable moving expenses incurred by you relating to a change of your principal residence in connection with an employment related relocation required by the Company and indemnify you against any "loss" realized in the sale of your principal residence in connection with such relocation, defined as the difference between the actual sale price of such residence (net of all commissions, fees, taxes and other closing costs borne by seller) and the higher of (a) your aggregate investment in such residence or (b) the fair market value of such residence as determined by a real estate appraiser designated by you and reasonably satisfactory to the Company.
- G. The failure by the Company to reimburse you for reasonable travel and other business expenses in accordance with the Company's applicable policies, procedures and practices provided that you properly account for such expenses in accordance with then applicable Company policy; and
- H. A material reduction in your aggregate benefits, such as the failure by the Company to either continue in effect any employee pension benefit or welfare benefit plan, program or practice in which you are eligible to participate immediately before the beginning of the Contract Period, including but not limited to, the Pension Plans, and APPLC's life insurance, medical, dental, health and accident, disability, severance and paid vacation plans, programs and practices (such plans, programs and practices herein together referred to as the "APCI Benefit Plans"), or, in lieu thereof, to initiate and maintain other plans, programs or practices providing you with benefits substantially similar in type and amount to those under the APCI Benefit Plans, with your aggregate benefits under the APCI Benefit Plans and such similar benefit plans (together, the "Benefit Plans") comparable in type and amount to your benefits under the APCI Benefit Plans immediately before the beginning of the Contract Period, or the Company's failure to maintain for you any other material fringe benefit or perquisite enjoyed by you immediately before the beginning of the Contract Period.
- I. The failure by the Company, while you are on international assignment or subject to taxes in a foreign jurisdiction due to a prior international assignment, to provide or continue tax equalization arrangements which reimburse you for or indemnify you from paying aggregate worldwide taxes in excess of the taxes you would have paid on your compensation excluding international assignment benefits, allowances, and premiums, had you not accepted the international assignment.
- J. Any purported termination of your employment for Disability or for Cause which is not effected in accordance with the procedures required in Section 4.
- K. The failure of the Company to obtain the written assumption of this Agreement by any successor of the Company prior to the effectiveness of any such succession.

"Highly Compensated Employees" shall mean the highest paid one percent of employees of the Company together with all corporations, partnerships, trusts, or other entities controlling, controlled by, or under common control with, the Company.

"Long Term Incentive Plan" shall mean the Air Products and Chemicals, Inc. 1997 Long Term Incentive Plan and/or any similar, successor or substitute long-term incentive compensation plans or program.

"Notice Date" shall mean the date a Termination Notice prepared by the Company or you is received by you or the Company, respectively.

"Pension Plan" shall mean the pension arrangements referred to in Exhibit A to this Agreement (said arrangements, as amended from time to time together with any similar, succeeding or substitute plan, contract or program).

"Retirement" shall mean (1) your voluntary retirement before attaining the normal retirement age under the Pension Plans, with an immediate non-actuarially reduced pension under the Pension Plans, provided that Termination for Good Reason before such normal retirement age shall not be deemed a Retirement for purposes of this Agreement even though you are eligible for and elect to receive, an immediate non-actuarially reduced pension under the Pension Plans, or (2) Termination of Employment in accordance with any retirement arrangement other than under the Pension Plans which is established with your consent with respect to you, provided that Termination for Good Reason shall not be deemed a Retirement for purposes of this Agreement even though you are eligible to retire, and receive benefits under, any such retirement arrangement, or (3) mandatory retirement as set forth under a policy of the Company as it existed prior to the Change in Control or as agreed to by you following a Change in Control.

"Target Annual Bonus" shall mean the target bonus under the Annual Incentive Plan which is approved by the Committee for the applicable Fiscal Year for Highly Compensated Employees at your grade level or other comparable compensation level, or, if no such target bonus has been determined for such Fiscal Year, such target bonus for the most recent Fiscal Year for which one was determined;

"Termination Date" means the effective date of a Termination of Employment for any reason, including death, Disability, or Retirement, whether by the Company or you.

"Termination", "Termination of Employment" or "Termination of your Employment" shall mean the termination of your employment with the Company, whether by you or the Company. It is understood, however, that should you be asked to perform duties and to devote your full-time services in a position wholly within the Company but not within APPLC, that elimination of your employment with and duties specific to APPLC will not be considered a termination of your employment under this Agreement.

"Termination Notice" shall mean the notice required by Subsection 3A.

2. TERM OF AGREEMENT  
-----

This Agreement will commence on the date of your signing hereof and will continue while you are in the active employment of the Company until 30 September 2001 and, beginning on 1 October 2001 and each one year anniversary thereof, the term of this Agreement will automatically be extended for one additional year unless, at least (90) ninety days prior to such date, either party gives written notice to the other that it does not wish to extend this Agreement. Notwithstanding any such written notice, if a Change in Control shall

have occurred prior to receipt of the notice or does occur within (90) ninety days of receipt of the notice, the attempted termination of the Agreement by Air Products shall be ineffective and the Agreement shall continue until the end of your Contract Period. If a Change in Control otherwise occurs during the term of this Agreement, this Agreement will continue in effect until the end of the Contract Period.

3. TERMINATION PROCEDURES  
-----

A. Termination Notice. During the Contract Period, any Termination of Employment by the Company or by you must be communicated by a written Termination Notice to the other party hereto. The "Termination Notice" must (i) specify the Termination Date; (ii) indicate the specific provisions in this Agreement, if any, applicable to the Termination and set forth in reasonable detail the facts and circumstances, if any, claimed to provide a basis for application of the provision so indicated; (iii) if given by the Company to you for other than Disability or Cause, specify, with supporting calculations, the amount the Company believes to be payable to you under this Agreement as a result of such Termination; and (iv) contain a copy of any other notice, resolution, demand or other document required to effect a Termination under provisions of the Agreement identified in (ii) above.

B. Additional Termination Procedures.  
-----

(i) During the Contract Period the Company may not Terminate your Employment for Cause unless and until: (a) there has been delivered to you a copy of a resolution Terminating your Employment for Cause duly adopted by the affirmative vote of not less than three-quarters of the entire membership of the Board; (b) such resolution was adopted at a meeting of the Board called and held for the purpose of considering such resolution; (c) you were provided reasonable notice of the Board's intent to consider the resolution and a reasonable opportunity, together with your counsel, to be heard by the Board at such meeting; and (d) the resolution finds, in the good faith opinion of the Board, that you have engaged in conduct constituting Cause and specifies the particulars thereof in detail, which particulars must be consistent with those specified in the notice of the Board meeting given to you.

(ii) During the Contract Period, the Company may not Terminate your Employment for Disability if you return to the performance of your duties on a substantially full-time basis within forty-five days of receiving the Termination Notice specifying Disability as the basis for Termination.

C. Termination Date. "Termination Date" shall be: (i) if your employment is  
-----

terminated due to your death, the date of your death, (ii) if your employment is terminated for Disability, at least forty-five days after the Termination Notice is given (provided that you have not returned to the full-time performance of your duties during such period) and, (iii) if your employment is terminated for any other reason, the date specified in the Termination Notice by the party giving the Notice, which date must be at least forty-five days after the Termination Notice if given by you for Good Reason or by the Company for any reason other than Cause; provided, however, that if within forty-five days after any Termination Notice is given, the party receiving such Termination Notice notifies the other party that a dispute exists, the Termination Date will be the date on which the dispute is finally determined, either by mutual written agreement of the parties, by a binding arbitration award or by a final judgment, order or decree of a court of competent jurisdiction (which is not appealable or with respect to which the time for appeal therefrom has expired and no appeal has been perfected); and provided further,

however, that your Termination Date shall be extended by a notice of dispute only if such notice is given in good faith and the party giving such notice pursues the resolution of such dispute with reasonable diligence, and your Termination Date shall in no event be extended beyond the end of the Contract Period.

D. Continuation of Salary and Benefits During Pendency of Dispute.

-----  
Until any dispute or controversy referred to in Subsection 3C above is finally resolved in accordance with such Subsection, the Company will (i) continue to pay you your full Base Salary at the higher of the rates in effect on the date your Termination Notice is received or immediately before any purported reduction in your Base Salary constituting Good Reason, and (ii) continue your participation in all Benefit Plans in which you were participating before such notice date provided that your continued participation in such Plans is possible under the general terms and conditions thereof. If your continued participation in any such Benefit Plans is barred by the terms thereof, the carrier or otherwise, the Company will arrange to provide you with benefits substantially similar to those which you would receive under such Plans. You will be entitled to seek specific performance of your rights under this Subsection 3D until your Termination Date during the dependency of any dispute or controversy arising under or in connection with this Agreement.

4. Compensation Upon Termination of Employment.

-----  
A. Termination for Cause, Death, Disability, or Retirement. If during the Contract Period the Company terminates your employment for Cause, or your employment is terminated due to your death, Disability or Retirement, the Company shall pay to you or your representative in the event of death as of the Termination Date your full Base Salary and accrued vacation pay through the Termination Date, plus any benefits or awards which have been earned by you or become payable to you under any policy or employee compensation or benefit plans of the Company. The benefits payable to you, or due to your death, Disability, Retirement or other Termination of Employment under all Benefit Plans, Bonus Plans and Incentive Plans in which you are participating before such Termination of Employment, will be paid as provided under such Plans and the Company will have no further obligation, other than to continue Tax Equalization Arrangements.

B. Termination Without Cause, Death, Retirement or Disability or for Good Reason. If during the Contract Period the Company Terminates your Employment other than for death, Retirement, Disability or Cause (it being understood that a purported termination for Disability or Cause which is disputed and finally determined not to have been proper or which is not effected in accordance with the procedures required in Section 3 will be a Termination other than for Cause or Disability), or you Terminate your Employment for Good Reason, then Air Products will provide you or cause you to be provided the payments and benefits described below in this Subsection 4B.

(i) Cash Payment. The Company will pay to you on or before the fifth day following your Termination Date, a lump sum cash payment equal to the sum of the following amounts:

(a) Your Base Salary through your Termination Date at the higher of the rate in effect on the Termination Date or the rate in effect immediately before any purported reduction in your Base Salary constituting Good Reason (such amount to be reduced by the

amount of any Base Salary payments previously paid by the Company to you for the same period or any portion thereof under Subsection 3D above or otherwise);

(b) The product of (I) the amount of the Target Annual Bonus for which you would have been eligible if you had been employed by the Company on the last day of the Fiscal Year or other bonus performance cycle that includes your Termination Date, multiplied by (II) a fraction of which the numerator is the number of days which have elapsed in such Fiscal Year through the Termination Date and the denominator is 365.

(c) Two times your Base Salary at the rate required by subparagraph (i)(a) above and;

(d) Two times the Target Annual Bonus for the Fiscal Year or other bonus performance cycle in which your Termination Date occurs; and

(e) A pension payment equal to the difference between the actuarial present values as of the Termination Date of (i) the pension benefits you will receive under the Pension Plan and (ii) the pension benefits you would receive by adding up to two years of credited service to your credited service under the Pension Plan as of your Termination Date (such credited service under this Agreement and the Pension Plan not to exceed 40 years in the aggregate), or, if you have attained or are entitled to 40 years of credited service under the Pension Plan as of your Termination Date, by applying two annual increases to your Base Salary each at a rate of increase, on a percentage basis, equal to the average annual percentage increase in your Base Salary during the three full Fiscal Years immediately preceding the beginning of the Contract Period. For purposes of determining present values in calculating this pension payment, it shall be assumed that your benefits will commence in the form of a straight life annuity as of the later of the Termination Date or the date on which you could retire and commence a benefit under the Pension Plan without reduction for commencement before the normal retirement date under such Plan were you employed by the Company on such date. The interest rate used for such purposes shall be the average of the average monthly yields for municipal bonds published monthly by Moodys Investors' Service Inc. for the three months immediately preceding your Termination Date. For purposes of determining actuarial present values in calculating the pension payment, life expectancy assumptions used by the Plans's actuaries for other purposes shall be used. The calculation of the pension payment described in this subparagraph shall be made by a nationally recognized firm of enrolled actuaries acceptable to you and the Company. The Company shall pay the reasonable fees and expenses of such actuarial firm. The calculation made by such actuarial firm shall be binding on you and the Company.

(f) For purposes of subparagraphs (i)(c), (i)(d) and (i)(e) of this Subsection 4B, in the event you have attained age 62 on or before your Termination Date, the amounts payable shall be reduced to an amount which bears the same proportion to the unreduced amount as the number of months preceding your sixty-fifth birthday bears to thirty six.

(g) The amount of the payment described in (a)-(f) shall be reduced to the extent of any severance or redundancy benefit or payment sponsored by the Company and/or provided or required by applicable law or regulation, which is received by you on account of your Termination of Employment.

(h) If the amount of the payment described in (a) - (g) above cannot be finally determined on or before the fifth day following the Termination Date, the Company will pay to you on such day an estimate, as determined in good faith by the Company, of the minimum amount of such payment and will pay the remainder of such payment as soon as the amount thereof can be determined but in no event later than the thirtieth day after your Termination Date.

(ii) Insurance and Welfare Benefit Plans. The Company will provide for you and your dependents following your Termination Date until the earlier of two years following your Termination Date or your death, benefits equivalent to those provided by the Company under all life insurance, medical, dental, health and accident, long term disability, long term care plans or programs in which you were participating on your Termination Date or, in the event of a reduction in such benefits constituting Good Reason, equivalent to those provided immediately before such reduction; provided that, such benefits will not be provided beyond the period of time during which they would have been provided to you under such plans or programs, as in effect on your Termination Date or immediately before a reduction constituting Good Cause, had you not been Terminated other than for death, Retirement, Disability or Cause or Terminated for Good Reason, and such benefits will be provided for at least the period during which they would have been provided to you were this Agreement not in effect. In the event of your death during such two-year period, benefits in respect of you or to your beneficiaries will be provided in accordance with the terms of such plans or programs applicable to active employees of the Company. Any continuation of benefits pursuant to this subparagraph shall not run concurrent with any continuation rights provided pursuant to the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended ("COBRA"), and for purposes of applying COBRA with respect to your coverage under any group health plans, the end of coverage under this subparagraph shall be deemed to be the date of a qualifying event resulting from the termination of a covered employee.

(iii) Legal Fees and Expenses. The Company will reimburse you for all legal and other fees and expenses incurred by you as a result of Termination of Employment, including without limitation all such fees and expenses, if any, reasonably incurred in verifying the amount of the benefits owed by the Company under this Agreement, in contesting or disputing the fact or nature of any such Termination, in seeking to obtain or enforce any right or benefit provided by this Agreement and/or in connection with any tax audit or proceeding with respect to payments made or to be made hereunder. The Company will pay, to the fullest extent permitted by law, all legal fees and expenses which you may reasonably incur as a result of any contest (regardless of the outcome thereof) by the Company of the validity or enforceability of, or liability under or as a result of, any provision of this Agreement or any guarantee of performance thereof.

(iv) Outplacement and Financial Counseling. The Company shall, within 30 days of the Termination Date, make available to you at the Company's expense, individual financial counseling and outplacement counseling at times and locations that are convenient to you, with a nationally recognized outplacement and financial counseling firm, respectively. The financial counseling firm may also provide you with tax counseling and tax preparation services. You may select the organizations that will provide the outplacement, financial and tax counseling; however, the Company's obligation to provide you benefits under this paragraph (iv) shall be limited to \$10,000.

(v) Excise Tax. If any payment, distribution or acceleration of benefits, compensation or rights that is made by the Company to you or for your benefit, pursuant to this Agreement or otherwise, results in a liability to you for the excise tax imposed by Section 4999 of the Code, including any payment under this paragraph, the Company shall pay you an amount equal to such excise tax within ten days of the determination of such excise tax liability. The amount of such excise tax liability, including whether any such tax is properly applied, shall be determined by a nationally recognized public accounting firm acceptable to you and the Company, which firm shall provide you with a written opinion of the amount of the excise tax liability, if any. The Company shall pay the reasonable fees and expenses of such accounting firm. The determination of the firm shall be binding on you and the Company.

(vi) Interest on Unpaid Amounts. The Company shall pay you interest, compounded quarterly, on any unpaid amount determined to be payable by the Company to you under this Agreement from the date such amount would first have been payable to you during the Contract Period in accordance with the provisions of this Agreement until paid, such interest to be calculated on the basis of 120% of the applicable federal funds rate, as provided for in Section 1274(c) of the Code, in effect from time to time during the period of such nonpayment.

(vii) Mitigation. You shall not be obligated to seek other employment or take any other action to mitigate the amounts payable to you under any of the provisions of this Agreement, nor shall the amount of any payment hereunder be reduced by any compensation earned as result of your employment by another employer, except that any continued insurance and welfare benefits provided for by paragraph (ii) shall not duplicate any benefits that are provided to you and your family by such other employer and shall be secondary to any coverage provided by such other employer.

(viii) Waiver. You will have the right to waive in writing prior to the date of payment or receipt any payment, benefit or portion thereof selected by you, which would otherwise be due to you from the Company under this Agreement or any other plans, arrangement or agreement with the Company, any person or entity whose actions result in the Change in Control or any person or entity affiliated with the Company or such person or entity.

C. Tax Withholding and Equalization: Survival of Obligations. Except as specifically provided herein, any payments provided for under this Agreement shall be paid net of any applicable tax withholding required under federal, state, or local law of the United States or the United Kingdom or other applicable taxing jurisdiction. If you are on international assignment at the time any payments provided for under this Agreement are made or such payments are subject to tax by a foreign jurisdiction due to a prior international assignment, the Company shall pay on your behalf, or reimburse you for, any foreign taxes applicable to the payments to the extent the total of such taxes, together with any taxes imposed by your home country, exceed the tax liability you would have had on such payments had you not accepted the international assignment. The obligations of the Company set forth in this Section 4 shall survive your Termination of Employment and the end of the Contract Period to the extent not previously performed in full.

5. INDEMNIFICATION  
-----

If you are made a party or threatened to be made a party to or are otherwise involved at any time before or during the Contract Period in any action, suit or proceeding, other than one

instituted by you or by the Internal Revenue Service, whether civil, criminal, administrative or investigative (hereinafter a "proceeding") by reason of the fact that you are a party to this Agreement, you will be indemnified and held harmless by the Company, to the fullest extent permitted by applicable law (regardless of the outcome of the proceeding), against all expense, liability and loss (including attorney's fees, judgments, fines and amounts paid in settlement) reasonably incurred or suffered by you in connection therewith. You will notify the Company in the event of the commencement or threat of commencement of any proceeding in respect of which indemnity may be sought under this Section.

The Company will at its expense participate in and assume the defense of any such proceeding, including the employment of counsel chosen by it (and as to whom you have no reasonable objection) and the payment of the fees and disbursements of such counsel. You will cooperate with the Company in respect of such defense and may retain separate counsel at your expense to participate in such defense. In the event that, in the opinion of your counsel, you and the Company or any other executive represented by the Company's counsel in such proceeding have a conflict of interest in respect of the proceeding, then you may employ counsel as separate counsel to represent or defend you in the proceeding and the Company will pay for the reasonable fees and disbursements of such counsel. The provisions of this Section shall be inapplicable to any proceeding instituted by the Company during the Contract Period which shall, as to your defense and fees and expenses thereof, be governed by paragraph (iii) of Subsection 4B hereof.

Your rights under this Section 5 are not exclusive of any other right which you may have or hereafter acquire under any statute, certificate of incorporation, by-law, agreement, insurance policy or otherwise, and shall survive your Termination of Employment and the end of the Contract Period.

6. SUCCESSORS; BINDING AGREEMENT

-----

Air Products will require any successor (whether direct or indirect, by purchase, merger, consolidation or otherwise) to all or substantially all of the business and/or assets of Air Products, to expressly, by written agreement in form and substance satisfactory to you, assume and agree to perform this Agreement in the same manner and to the same extent that Air Products would be required to perform it if no such succession had taken place. As used in this Agreement, during the Contract Period "Air Products" and "Company" mean Air Products and the Company as hereinbefore defined and any successor to the business and/or assets of Air Products and the Company as aforesaid which executes and delivers the agreement provided for in this Section 6 or which becomes bound by all the terms and provisions of this Agreement by operation of law or otherwise.

This Agreement will inure to the benefit of and be enforceable by your personal or legal representatives, executors, administrators, successors, heirs, distributees, devisees and legatees, but neither this Agreement nor any of your rights or obligations hereunder may be assigned or pledged by you. If you should die while any amounts would still be payable to you under Subsection 4B hereof if you had continued to live, all such amounts, unless otherwise provided herein, will be paid in accordance with the terms of this Agreement to your devisee, legatee or other designee or, if there be no such designee, to your estate.

7. NOTICE  
-----

For purposes of this Agreement, notices and all other communications provided for in this Agreement must be in writing and will be deemed to have been duly given when delivered or mailed by certified mail, return receipt requested, postage prepaid, as to you, addressed to your address set forth on the first page of this Agreement, and as to Air Products, addressed to the address printed on the first page of this Agreement or such other location as you know to be the chief executive offices of Air Products directed to the attention of the chief executive officer of Air Products with a copy to the secretary of Air Products. You and Air Products may change your respective notice addresses hereunder by furnishing such new address to the other in writing in accordance herewith, except that notices of change of address will be effective only upon receipt.

8. MISCELLANEOUS  
-----

A. Amendment; Waiver. No provisions of this Agreement may be modified, waived or discharged unless such waiver, modification or discharge is agreed to in writing signed by you and an officer of Air Products specifically designated by the Board (which will in any event include Air Products chief executive officer). No waiver by either party hereto at any time of any breach by the other party hereto of, or compliance with, any condition or provision of this Agreement to be performed by such other party will be deemed a waiver of similar or dissimilar provisions or conditions at the same or at any prior or subsequent time.

Notwithstanding the foregoing, prior to a Change in Control Air Products may unilaterally amend this Agreement as may from time to time be required to assure that this Agreement does not violate or cause the Company to be in violation of applicable law or that any payment provided for hereunder would not be prohibited by applicable law; provided that all other employment or other agreements between the Company and other key members of its management substantially similar to this Agreement are similarly amended at such time.

B. Nondisclosure. You hereby ratify and affirm, and agree to be bound by, the terms and provisions of your Employee Patent and Confidential Information Agreements with the Company dated as of the date hereof (your "Employee Agreement") during the Contract Period and thereafter in accordance with the terms of your Employee Agreement, which Agreement is incorporated by reference herein and made a part hereof as if set forth in full herein.

C. Exclusive Agreement. Except for your Employee Agreement and any similar, succeeding or substitute agreement between you and the Company, no agreements or representations, oral or otherwise, express or implied, with respect to the subject matter hereof have been made by either party which are not set forth expressly in this Agreement. Notwithstanding any other provision of this Agreement, this Agreement does not affect the Company's right to terminate your employment or to alter your compensation, benefits, position or other terms and conditions of employment with the Company prior to a Change in Control, or your right to resign from employment with the Company prior to a Change in Control, and any such termination, resignation or other action with respect to your terms and conditions of employment prior to a Change in Control will give rise to no rights or obligations in either of the parties hereto under this Agreement.

D. Other Plans and Programs. Nothing in this Agreement shall prevent or limit your continuing or future participation in any benefit, bonus, incentive or other plans or program

provided by the Company and for which you may qualify, nor shall anything herein limit or otherwise affect such rights as you may have under any such plans or program. Except as expressly provided herein, amounts which are vested benefits or which you are otherwise entitled to receive under any plans or program of the Company at or subsequent to your Termination Date shall be payable in accordance with such plans or program, unless you should expressly waive your rights thereto in writing.

E. Governing Law; Validity; References to Law. The validity, interpretation, construction and performance of this Agreement shall be governed by the laws of the Commonwealth of Pennsylvania. The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of any other provision or provisions of this Agreement, which shall remain in full force and effect. All references herein to sections of the Act or the Code shall be deemed also to refer to any successor provisions to such sections.

F. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original but all of which together will constitute one and the same instrument.

If this letter correctly sets forth our agreement on the subject matter hereof, kindly sign and return to the Company the enclosed copy of this letter which will then constitute our agreement on this subject.

Sincerely,

AIR PRODUCTS AND CHEMICALS, INC.

By: \_\_\_\_\_

Title: Vice President - Human Resources

AGREED TO THIS      DAY OF      2000  
-----

-----

Enclosure

26 February 2001

Mr. Leonard Broese van Groenou  
202 N. Broad Street  
Allentown, PA 18104

Dear Leonard:

In view of your appointment to serve on the Corporate Executive Committee effective 26 February 2001 and in accordance with the resolution of the Board of Directors adopted on 15 September 1999, this is to confirm to you that Air Products and Chemicals, Inc. ("Air Products") has amended that certain severance agreement between you and Air Products dated 16 September 1999 (the "Agreement") by amending and restating in their entirety effective as of 26 February 2001 the following paragraphs of Subsection 4B of the Agreement (the revisions therein being portrayed in italics):

(i) Cash Payment. The Company will pay to you on or before the fifth day following your Termination Date, a lump sum cash payment equal to the sum of the following amounts:

(a) Your Base Salary through your Termination Date at the higher of the rate in effect on the Termination Date or the rate in effect immediately before any purported reduction in your Base Salary constituting Good Reason (such amount to be reduced by the amount of any Base Salary payments previously paid by the Company to you for the same period or any portion thereof under Subsection 3D above or otherwise);

(b) The product of (I) the amount of the Target Annual Bonus for which you would have been eligible if you had been employed by the Company on the last day of the Fiscal Year or other bonus performance cycle that includes your Termination Date, multiplied by (II) a fraction of which the numerator is the number of days which have elapsed in such Fiscal Year through the Termination Date and the denominator is 365.

(c) Three times your Base Salary at the rate required by subparagraph (i)(a) above and;

Leonard Broese van Groenou  
26 February 2001  
Page 2

(d) Three times the Target Annual Bonus for the Fiscal Year or other bonus performance cycle in which your Termination Date occurs; and

(e) A pension payment equal to the difference between the actuarial present values as of the Termination Date of (i) the pension benefits you will receive under the Pension Plan and (ii) the pension benefits you would receive by adding up to two years of credited service to your credited service under the Pension Plan as of your Termination Date (such credited service under this Agreement and the Pension Plan not to exceed 40 years in the aggregate), or, if you have attained or are entitled to 40 years of credited service under the Pension Plan as of your Termination Date, by applying three annual increases to your Base Salary each at a rate of increase, on a percentage basis, equal to the average annual percentage increase in your Base Salary during the three full Fiscal Years immediately preceding the beginning of the Contract Period. For purposes of determining present values in calculating this pension payment, it shall be assumed that your benefits will commence in the form of a straight life annuity as of the later of the Termination Date or the date on which you could retire and commence a benefit under the Pension Plan without reduction for commencement before the normal retirement date under such Plan were you employed by the Company on such date. The interest rate used for such purposes shall be the average of the average monthly yields for municipal bonds published monthly by Moodys Investors' Service Inc. for the three months immediately preceding your Termination Date. For purposes of determining actuarial present values in calculating the pension payment, life expectancy assumptions used by the Plans's actuaries for other purposes shall be used. The calculation of the pension payment described in this subparagraph shall be made by a nationally recognized firm of enrolled actuaries acceptable to you and the Company. The Company shall pay the reasonable fees and expenses of such actuarial firm. The calculation made by such actuarial firm shall be binding on you and the Company.

(f) For purposes of subparagraphs (i)(c), (i)(d) and (i)(e) of this Subsection 4B, in the event you have attained age 62 on or before your Termination Date, the amounts payable shall be reduced to an amount which bears the same proportion to the unreduced amount as the number of months preceding your sixty-fifth birthday bears to thirty six.

(g) The amount of the payment described in (a)-(f) shall be reduced to the extent of any severance or redundancy benefit or payment sponsored by the Company and/or provided or required by applicable law or regulation, which is received by you on account of your Termination of Employment.

(h) If the amount of the payment described in (a) - (g) above

cannot be finally determined on or before the fifth day following the Termination Date, the Company will pay to you on such day an estimate, as determined in good faith by the Company, of the minimum amount of such payment and will pay the remainder of such payment as soon as the amount thereof can be determined but in no event later than the thirtieth day after your Termination Date.

(ii) Insurance and Welfare Benefit Plans. The Company will provide for you and your dependents following your Termination Date until the earlier of three years following your Termination Date or your death, benefits equivalent to those provided by the Company under all life insurance, medical, dental, health and accident, long term disability, long term care plans or programs in which you were participating on your Termination Date or, in the event of a reduction in such benefits constituting Good Reason, equivalent to those provided immediately before such reduction; provided that, such benefits will not be provided beyond the period of time during which they would have been provided to you under such plans or programs, as in effect on your Termination Date or immediately before a reduction constituting Good Cause, had you not been Terminated other than for death, Retirement, Disability or Cause or Terminated for Good Reason, and such benefits will be provided for at least the period during which they would have been provided to you were this Agreement not in effect. In the event of your death during such three-year period, benefits in respect of you or to your beneficiaries will be provided in accordance with the terms of such plans or programs applicable to active employees of the Company. Any continuation of benefits pursuant to this subparagraph shall not run concurrent with any continuation rights provided pursuant to the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended ("COBRA"), and for purposes of applying COBRA with respect to your coverage under any group health plans, the end of coverage under this subparagraph shall be deemed to be the date of a qualifying event resulting from the termination of a covered employee.

The terms and provisions of the Agreement, as amended as set forth above effective as of 26 February 2001, shall continue in full force and effect. If this letter correctly sets forth our agreement on the subject matter hereof, kindly sign and return to the Company the enclosed copy of this letter which will then constitute our agreement on this subject.

Sincerely,  
AIR PRODUCTS AND CHEMICALS, INC.

By: \_\_\_\_\_

Title: Chairman, President, and  
Chief Executive Officer

AGREED TO THIS      DAY OF              2001  
-----

-----  
Enclosure

AIR PRODUCTS LOGO

Air Products and Chemicals, Inc.  
7201 Hamilton Boulevard  
Allentown, PA 18175-7501  
Tel 610 481-7258  
Fax 610 481-8951

J. P McAndrew  
Vice President  
Human Resources

19 April 2000

Leonard Broese van Groenou  
23 Oatlands Close  
Weybridge  
Surrey, England KT13 9EE

Subject: Pension Arrangements

Dear Leonard:

This letter confirms and expands upon the commitments made to you in my prior correspondence of 30 May 1997. Previously, I have informed you that a decision has been made to allow you to participate in the Air Products Europe Supplementary Pension Plan. Furthermore, the Company and the U.K. Inland Revenue have approved a normal retirement age of 60 for you. Accordingly, the Company will target a pension of two-thirds of your final pensionable salary (final base salary less the Lower Earnings Limit. The LEL is set annually by the U.K. Government and for the year 99/00 is PDS 3484.) Furthermore, in the event that the Company requires you to take early retirement, the two-thirds pension will be payable immediately and adjusted based upon your actual service and up to five additional years of pensionable service (not to exceed 40 years of pensionable service in the aggregate) and without abatement for early payment. The ultimate pension will be comprised of the U.K. pension plan and the Belgian pension plan together with an element of unfunded pension provisions.

Leonard, you are awarded this valuable benefit in recognition of your significant service to our Company, and I know that I can be confident of your recognition of the need to respect its confidentiality.

Sincerely,

/s/ J. P. McAndrew

J. P. McAndrew  
Vice President-Human Resources

A Responsible Care Company logo

## AIR PRODUCTS AND CHEMICALS, INC., AND SUBSIDIARIES

COMPUTATION OF RATIOS OF EARNINGS TO FIXED CHARGES  
(Unaudited)

|   | Year Ended 30 September |                |                  |                |                | Six<br>Months<br>Ended<br>31 Mar |
|---|-------------------------|----------------|------------------|----------------|----------------|----------------------------------|
|   | 1996                    | 1997           | 1998             | 1999           | 2000           | 2001                             |
| Earnings:   |                         |                |                  |                |                |                                  |
| Income before extraordinary item and the cumulative effect of accounting changes: | \$416.4                 | \$429.3        | \$546.8          | \$450.5        | \$124.2        | \$230.2                          |
| Add (deduct):   |                         |                |                  |                |                |                                  |
| Provision for income taxes  | 195.5                   | 203.4          | 280.9            | 209.5          | (7.5)          | 101.7                            |
| Fixed charges, excluding capitalized interest                                     | 184.0                   | 233.0          | 202.8            | 194.4          | 232.6          | 113.5                            |
| Capitalized interest amortized during the period                                  | 9.4                     | 8.3            | 7.4              | 6.1            | 6.6            | 3.6                              |
| Undistributed earnings of less-than-fifty-percent-owned affiliates                | (40.6)                  | (31.1)         | (25.3)           | (44.5)         | (32.1)         | (13.6)                           |
| Earnings, as adjusted   | <u>\$764.7</u>          | <u>\$842.9</u> | <u>\$1,012.6</u> | <u>\$816.0</u> | <u>\$323.8</u> | <u>\$435.4</u>                   |
| Fixed Charges:  |                         |                |                  |                |                |                                  |
| Interest on indebtedness, including capital lease obligations                     | \$171.7                 | \$217.8        | \$186.7          | \$175.4        | \$210.3        | \$104.1                          |
| Capitalized interest  | 20.0                    | 20.9           | 18.4             | 24.7           | 19.7           | 5.7                              |
| Amortization of debt discount premium and expense                                 | 1.5                     | 1.8            | 1.9              | 1.3            | 3.1            | (0.4)                            |
| Portion of rents under operating leases representative of the interest factor     | 10.8                    | 13.4           | 14.2             | 17.7           | 19.3           | 9.8                              |
| Fixed charges   | <u>\$204.0</u>          | <u>\$253.9</u> | <u>\$221.2</u>   | <u>\$219.1</u> | <u>\$252.4</u> | <u>\$119.2</u>                   |
| Ratio of Earnings to Fixed Charges:   | <u>3.7</u>              | <u>3.3</u>     | <u>4.6</u>       | <u>3.7</u>     | <u>1.3</u>     | <u>3.7</u>                       |