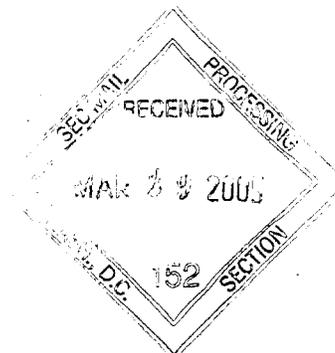


SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549



05048986

FORM SE



FORM FOR SUBMISSION OF PAPER FORMAT EXHIBITS
BY ELECTRONIC FILERS

Air Products and Chemicals, Inc.

(Exact Name of Registrant as Specified in Charter)

0000002969

(Registrant CIK Number)

Form 11-K for fiscal year ended 9/30/04

(Electronic Report, Schedule or Registration Statement
of Which the Documents Are a Part (Give Period of Report))

1-4534

(SEC File Number)

PROCESSED

APR 05 2005

THOMSON
FINANCIAL

SIGNATURES

Filings Made by the Registrant. The registrant has duly caused this form to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Allentown, Commonwealth of Pennsylvania, 18195-1501, March 28, 2005.

AIR PRODUCTS AND CHEMICALS, INC.

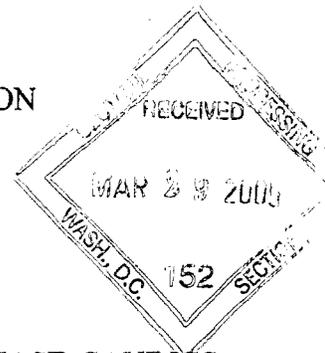
(Registrant)

By: 

W. Douglas Brown
Vice President, General
Counsel and Secretary

(Title)

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549



FORM 11-K

FOR ANNUAL REPORTS OF EMPLOYEE STOCK PURCHASE, SAVINGS
AND SIMILAR PLANS PURSUANT TO SECTION 15(d) OF
THE SECURITIES EXCHANGE ACT OF 1934

(Mark One)

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

For the fiscal year ended September 30, 2004

or

TRANSITION REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES
EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission file number 1-4534

A. Full title of the Plan and the address of the Plan, if different from that of the issuer named
below:

**AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS AND STOCK OWNERSHIP PLAN**

B. Name of issuer of the securities held pursuant to the Plan and the address of its principal
executive offices:

**AIR PRODUCTS AND CHEMICALS, INC.
7201 HAMILTON BOULEVARD
ALLENTOWN, PA 18195-1501**

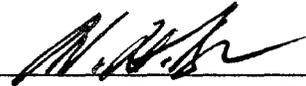
Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this Annual Report to be signed on its behalf by the undersigned, thereunto duly authorized.

Air Products and Chemicals, Inc.

(Registrant)

Dated: March 28, 2005

By: _____



W. Douglas Brown
Vice President, General
Counsel and Secretary



**AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS AND STOCK OWNERSHIP PLAN**

Financial Statements and Schedules

30 September 2004 and 2003

(With Report of Independent Registered Public Accounting Firm)

**AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS AND STOCK OWNERSHIP PLAN**

Table of Contents

	Page
Report of Independent Registered Public Accounting Firm	1
Consent of Independent Registered Public Accounting Firm	2
Statements of Net Assets Available for Benefits, 30 September 2004 and 2003	3
Statements of Changes in Net Assets Available for Benefits, Years ended 30 September 2004 and 2003	4
Notes to Financial Statements	5
Schedules of Assets (Held at End of Year), 30 September 2004 and 2003	13



KPMG LLP
1601 Market Street
Philadelphia, PA 19103-2499

Report of Independent Registered Public Accounting Firm

Air Products and Chemicals, Inc.:

We have audited the accompanying statements of net assets available for benefits of the Air Products and Chemicals, Inc. Retirement Savings and Stock Ownership Plan (the Plan) as of 30 September 2004 and 2003, and the related statements of changes in assets available for benefits for the years then ended, and the supplemental schedules as of 30 September 2004 and 2003. These financial statements and the supplemental schedules referred to below are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements and supplemental schedules based on our audits.

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

In our opinion, the financial statements referred to above present fairly, in all material respects, the assets available for benefits of the plan as of 30 September 2004 and 2003, and the changes in its assets available for benefits for the years then ended, in conformity with U.S. generally accepted accounting principles.

Our audits were performed for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental schedules of assets (held at end of year) as of 30 September 2004 and 2003 are presented for the purpose of additional analysis and are not a required part of the basic financial statements but are supplementary information required by the Department of Labor's *Rules and Regulations for Reporting and Disclosure Under the Employee Retirement Income Security Act of 1974*. The supplemental schedules have been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, are fairly stated in all material respects in relation to the basic financial statements taken as a whole.

KPMG LLP

Philadelphia, Pennsylvania
18 March 2005

Consent of Independent Registered Public Accounting Firm

Air Products and Chemicals, Inc.:

We consent to the incorporation by reference in the registration statement on Form S-8 (No. 333-99497) of Air Products and Chemicals, Inc. of our report dated 18 March 2005 with respect to the statements of net assets available for benefits of the Air Products and Chemicals, Inc. Retirement Savings and Stock Ownership Plan as of 30 September 2004 and 2003, and the related statements of changes in the net assets available for benefits for each of the years in the two-year period ended 30 September 2004, and the supplemental schedules of assets (held at end of year) as of 30 September 2004 and 2003. This report is included in the annual report on Form 11-K of the Air Products and Chemicals, Inc. Retirement Savings and Stock Ownership Plan.

KPMG LLP

Philadelphia, Pennsylvania
24 March 2005

AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS AND STOCK OWNERSHIP PLAN

Statements of Net Assets Available for Benefits

30 September 2004 and 2003

(In thousands)

	2004	2003
Assets:		
Investments:		
Money Market Fund	\$ 21,675	22,647
Fixed Income Securities Fund	235,645	205,806
Short-Term Corporate Bond Fund	22,114	23,613
Balanced Fund	115,035	79,698
Index Stock Fund	108,667	92,065
Growth and Income Stock Fund	188,950	159,473
Growth Stock Fund	36,764	34,096
International Stock Fund	40,695	29,466
Growth and Income Stock Fund II	24,109	11,554
Small Capitalization Equity Fund	43,467	32,288
Company Stock Fund – ESOP	376,431	374,673
Company Stock Fund – Current Year	20,089	19,617
Total investments	1,233,641	1,084,996
Receivables:		
Employee contribution receivable	3,575	3,125
Employer contribution receivable	1,173	1,072
Accrued interest and dividends	3,024	2,846
Total receivables	7,772	7,043
Participants' loans receivable	18,796	19,074
Total assets	1,260,209	1,111,113
Liabilities:		
Payables and accrued liabilities	2,980	6,319
Total liabilities	2,980	6,319
Net assets available for benefits	\$ 1,257,229	1,104,794

See accompanying notes to financial statements.

AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS AND STOCK OWNERSHIP PLAN

Statements of Changes in Net Assets Available for Benefits

Years ended 30 September 2004 and 2003

(In thousands)

	2004	2003
Additions:		
Contributions:		
Employee	\$ 46,369	42,163
Employer	14,452	13,834
	60,821	55,997
Investment income:		
Interest	11,073	11,433
Dividends	16,682	14,080
	27,755	25,513
Net appreciation in fair value of investments	137,315	112,989
Total additions	225,891	194,499
Deductions:		
Distributions to participants	72,667	50,043
Administrative expenses	789	665
Total deductions	73,456	50,708
Net increase	152,435	143,791
Net assets available for benefits, beginning of year	1,104,794	961,003
Net assets available for benefits, end of year	\$ 1,257,229	1,104,794

See accompanying notes to financial statements.

AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS AND STOCK OWNERSHIP PLAN

Notes to Financial Statements

30 September 2004 and 2003

(1) Description of the Plan

The following description of the Air Products and Chemicals, Inc. Retirement Savings and Stock Ownership Plan (the Plan) provides only general information. Participants should refer to the Summary Plan Description and the plan document for a more complete description of the Plan's provisions.

(a) General

The Plan is a defined contribution plan covering certain full-time and part-time salaried and nonunion hourly employees of Air Products and Chemicals, Inc. (the Company) and designated subsidiaries who have completed at least 30 days of service. Participants of the Plan are entitled to make before-tax contributions and after-tax contributions as allowed by Sections 401(k) and 401(m) of the *Internal Revenue Code*. Eligible participants are entitled to make catch-up contributions as allowed by Section 414(v) of the *Internal Revenue Code*. Company matching contributions are made under *Internal Revenue Code* Section 401(m). See further discussion below.

(b) Administration

The Plan is administered by the Director of Compensation and Benefits, who is the Employee Retirement Income Security Act of 1974 (ERISA) plan administrator. The Benefits Committee appointed by the board of directors has oversight responsibility for plan administration and investment of plan assets. State Street Bank and Trust Company (State Street) is the trustee of the Plan.

(c) Participation

Subject to certain *Internal Revenue Code* restrictions, participants may elect to contribute to the Plan on a before-tax basis from 3% to 50%, in whole percentages, of compensation, as defined in the plan document, through payroll deductions subject to certain limitations. The before-tax basis allows a participant to defer recognition of income for federal income tax purposes. The maximum after-tax contribution is 16%. Participants who are at least age 50 before the close of the calendar year may make catch-up contributions in accordance with, and subject to the limitations of, *Internal Revenue Code* Section 414(v). The Company will match certain contributions as follows:

- 75 cents for each one dollar of the first 3% of base pay that is contributed if it is before-tax, plus
- 25 cents for each one dollar of the next 1%, 2%, or 3% of base pay that is contributed either before-tax or after-tax

Catch-up contributions are not eligible for Company matching contributions.

(d) Contribution Percentage Changes

Contribution percentage changes must be submitted by 4 p.m. (Eastern Time) on the last New York Stock Exchange (NYSE) business day on or before the 15th of the month to be effective in the first pay of the following month.

AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS AND STOCK OWNERSHIP PLAN

Notes to Financial Statements

30 September 2004 and 2003

(e) Rollovers

A participant or any other employee who is entitled to make a "rollover contribution" to the Plan under the *Internal Revenue Code* may make a cash contribution to the Plan of all or a portion of any such rollover contribution amount.

(f) Withdrawal Provisions

Upon application, no sooner than 12 months after any earlier withdrawal by him or her,

- (a) a participant may withdraw all or a portion of his or her after-tax contributions and earnings thereon, at any time.
- (b) after withdrawing all amounts credited to his or her after-tax accounts described in subparagraph (a), a participant may withdraw any matured Company matching contributions, that is, Company matching contributions and earnings thereon that have been credited to his or her accounts for two years after the end of the plan year.
- (c) after withdrawing all amounts credited to his or her after-tax accounts described in subparagraph (a) and in his or her matured Company matching contributions accounts described in subparagraph (b) above, a participant may withdraw before-tax contributions upon
 - (i) attaining age 59-1/2 or
 - (ii) providing satisfactory evidence that the withdrawal is required on account of a "hardship." Hardship withdrawals will be limited to situations in which a participant has an immediate and heavy financial need and a distribution from the Plan is necessary to meet that need. A plan loan must be pursued first. A hardship withdrawal may be made without regard to whether any other withdrawal has occurred within the last 12 months and will result in the suspension of the right to participate in the Plan for the next 6 months. A hardship withdrawal cannot include earnings accrued after 31 December 1988.

Participants have no right to withdraw any unmatured Company matching contributions or any earnings thereon. The matching contributions in the Plan mature two years after the end of the plan year during which they are added to a participant's account.

A participant, upon separation of employment, is entitled to receive all amounts credited to his or her account, including before-tax, after-tax, catch-up, and Company matching contributions. This distribution will automatically occur on or about 60 days after the end of the month employment ends if the participant's account balance is less than \$5,000 or for any outstanding loan balance, which is not paid off within the 60 days. Participants may elect to roll distributions over directly into another qualified plan or Individual Retirement Account. Otherwise, distribution of the participant's account balance will be deferred until the earlier of age 70-1/2, death, or written election to initiate a distribution of amounts in the participant's plan account.

AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS AND STOCK OWNERSHIP PLAN

Notes to Financial Statements

30 September 2004 and 2003

(g) Participant Loans

The trustee may make a loan or loans to any participant upon his or her electronic request through the plan administrator. The loan may be made in an amount that when added to the outstanding balance of any other loan, will not exceed the lesser of \$50,000 reduced by any loan amounts repaid during the preceding year, or one half of the present value of the plan benefit of the participant. The loan must be adequately secured, bear a reasonable interest rate, and be repaid within a maximum of 5 years, unless such loan is for a principal residence, in which case the loan is to be repaid in a maximum of 25 years.

Loan principal and interest repayments are credited directly to the borrowing participant's plan accounts and invested in accordance with the participant's then-current investment directions. At the time of a participant's termination of employment, the participant must repay the full principal amount remaining in order to avoid a distribution of the loan balance.

(h) Investment Directions

Participants may elect to have their contributions to the Plan invested in the following funds in multiples of 1%, as long as the percentages total 100%:

Money Market Fund (State Street Yield-Enhanced Short-Term Investment Fund) – This fund is structured with high-quality money market instruments and other debt investments offered at longer maturities.

Fixed Income Securities Fund (State Street Stable Fixed Income Fund for Employee Benefit Trusts) – This fund invests in several different investment contracts with insurance companies and banks which provide for return of principal and fixed or variable interest.

Short-Term Corporate Bond Fund (Vanguard Fixed Income Securities Fund – Short-Term Corporate Bond Portfolio) – This fund's bond selection seeks a high level of current income by investing in relatively short maturity investment grade bonds.

Balanced Fund (Dodge & Cox Balanced Fund) – This fund seeks to provide regular income, conservation of principal, and an opportunity for long-term growth of principal and income through investments in a diversified portfolio of common stocks, preferred stocks, bonds, and cash equivalents.

Index Stock Fund (State Street S&P 500 Flagship Fund) – This fund seeks to provide investment results that parallel the performance results of the Standard and Poor's 500 Index by investing in common stocks of companies that comprise this index.

Growth and Income Stock Fund (Vanguard/Windsor Fund) – This fund seeks to generate long-term growth of capital as well as income from dividends. This fund invests in common stocks of mid to large companies that are out of favor or undervalued.

Growth Stock Fund (SEI Large Cap Growth Fund) – This fund seeks long-term growth of principal within the arena of large capitalization growth stocks.

AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS AND STOCK OWNERSHIP PLAN

Notes to Financial Statements

30 September 2004 and 2003

International Stock Fund (Templeton Foreign Fund) – This fund seeks long-term capital growth through a flexible policy of investing in stock and debt securities of companies and governments that are outside the United States.

Growth and Income Stock Fund II (Vanguard/Windsor II Fund) – This fund seeks to generate long-term growth of capital as well as income from dividends. This fund invests in common stocks of large companies that are out of favor or undervalued.

Small Capitalization Equity Fund (SEI Small Cap Equity Fund) – This fund seeks long-term capital growth within the arena of small capitalization companies.

Company Stock Fund – ESOP (Common Stock of Air Products and Chemicals, Inc.) – This fund is a nondiversified investment option designed to provide participants with an opportunity to share in the potential growth of Company common stock. This fund is a nonleveraged Employee Stock Ownership Plan (ESOP) within the Plan allowing participants to have dividends reinvested in their Company Stock Fund – ESOP account or to receive quarterly dividend checks.

Company Stock Fund – Current Year (Common Stock of Air Products and Chemicals, Inc.) – This fund is a nondiversified investment option designed to provide participants with an opportunity to share in the potential growth of Company common stock. Current plan year employee contributions and Company match contributions will be invested in this fund. Dividends are automatically reinvested in the Company Stock Fund – Current Year. Participants may not receive quarterly dividend checks related to amounts contributed to this fund during the current plan year. At the end of each plan year, all amounts in the Company Stock Fund – Current Year will be transferred to the Company Stock Fund – ESOP.

Investment securities, in general, are exposed to various risks, such as interest rate, credit, and overall market volatility risks. Due to the level of risk associated within certain investment securities, it is reasonably possible that changes in the values of investment securities will occur in the near term and may impact the amounts reported in the statements of net assets available for benefits.

Changes in investments can apply to future contributions or accumulated savings or both. Participants may change the investment direction of their future contributions effective with the current month's contribution if completed by 4 p.m. (Eastern Time) on the last NYSE business day of the current month. A transfer of accumulated savings completed by 4 p.m. (Eastern Time) will be effective the same NYSE business day and will be reflected in the participant's records the next NYSE business day.

Participants may not redirect accumulated savings directly from the Fixed Income Securities Fund to the Money Market Fund or the Short-Term Corporate Bond Fund. Participants age 50 or older may redirect matured Company matching contributions to any of the other funds. Participants (regardless of age) may transfer matured Company matching contributions from the Company Stock Fund – ESOP to other investment options in the Plan. Company matching contributions are considered matured two years after the end of the plan year during which they are added to a participant's account.

AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS AND STOCK OWNERSHIP PLAN

Notes to Financial Statements

30 September 2004 and 2003

The fair market value of individual investments that represent 5% or more of the Plan's total net assets available for benefits as of 30 September is as follows:

Investment	Current value	
	2004	2003
	(In thousands)	
Fixed Income Securities Fund (contract value)	\$ 227,970	200,127
Balanced Fund	115,035	79,698
Index Stock Fund	108,667	91,995
Growth and Income Stock Fund	188,950	159,473
Company Stock Fund – ESOP	371,009	364,142

(2) Basis of Accounting

The accompanying financial statements have been prepared on the accrual basis of accounting. The Company has elected to file these financial statements with the Securities and Exchange Commission prepared in conformity with guidelines issued under ERISA, as amended.

Purchases and sales are recorded on a trade-date basis.

Net appreciation (depreciation) in fair value of investments includes net realized gains (losses) on disposal of investments and the increase (decrease) in unrealized appreciation (depreciation) of investments during the year. The Fixed Income Securities Fund is stated at contract value while all other investments are stated at current value based on quoted market prices (note 3).

Interest-bearing cash is presented in the applicable fund in which the cash investment resides in the statement of net assets available for benefits. In the schedule of assets (held at end of year), the interest-bearing cash is presented separately as temporary investments.

The Company Stock Fund – ESOP is a nonleveraged ESOP within the Plan that allows participants to have dividends reinvested in their Company Stock Fund – ESOP account or to receive quarterly dividend checks. Participants may not receive cash dividends related to amounts contributed to the Company Stock Fund – Current Year during the current plan year.

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make certain estimates and assumptions that affect the reported amounts of net assets and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of plan income and expenses during the reporting period. Actual results could differ from these estimates.

Certain prior period amounts have been reclassified to conform to the current period presentation.

(3) Fixed Income Securities Fund

Contributions made to the Fixed Income Securities Fund are invested in investment contracts with insurance companies and banks. The funds in the portfolio are reported at contract value as the contracts held are deemed fully benefit-responsive. The fair value of the contracts in this portfolio is \$235,538,000

AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS AND STOCK OWNERSHIP PLAN

Notes to Financial Statements

30 September 2004 and 2003

and \$213,265,000 at 30 September 2004 and 2003, respectively. The crediting interest rate and average yield was 4.53% and 5.05% for the years ended 30 September 2004 and 2003, respectively. The balance on the statement of net assets available for benefits includes cash to be used for the purchase of contracts.

The investment contracts within the Fixed Income Securities Fund provide fixed crediting interest rates for the entire contractual term of the contracts. The Fixed Income Securities Fund's crediting interest rates for the years ended 30 September 2004 and 2003 were 4.4% and 4.75%, respectively.

No valuation reserves were recorded against the Fixed Income Securities Fund at 30 September 2004 and 2003.

(4) Federal Income Taxes Applicable to the Plan

The Company has received a favorable determination letter from the Internal Revenue Service stating that the Plan, amended and restated as of 20 August 2003, meets the requirements of Section 401(a) of the *Internal Revenue Code*.

(5) Expenses of the Plan

All reasonable third-party fees and expenses for administration of the Plan have been paid out of the Plan's trust, including (but not limited to) trustee fees, record-keeping fees, audit fees, proxy voting fees, and communication costs. Such costs are paid from the Plan's trust as a basis point charge to the unit value of plan investment funds. Expenses incident to the management of the securities and other investments in the investment funds are also deducted from or payable out of the income of the respective securities or other investments.

(6) Plan Termination

Although it has not expressed any intent to do so, the Company has the right under the Plan to discontinue its contributions at any time and to terminate the Plan subject to the provisions of ERISA. In the event of plan termination, the entire amount credited to each participant's account will remain fully vested.

(7) Reconciliation of Form 5500

The current value of the Fixed Income Securities Fund at year-end is recorded in the Plan's Form 5500. The contract value of this fund is recorded in the accompanying statements of net assets available for benefits and statements of changes in net assets available for benefits for financial statement purposes.

AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS AND STOCK OWNERSHIP PLAN

Notes to Financial Statements

30 September 2004 and 2003

The following table reconciles both the changes in net assets available for benefits and the net assets available for benefits per the financial statements to the Form 5500 as filed by the Company.

	30 September 2004	
	Changes in net assets available for benefits	Net assets available for benefits
	(In thousands)	
Per financial statements	\$ 152,435	1,257,229
Prior year Fixed Income Securities Fund adjustment	—	(2,152)
Current year Fixed Income Securities Fund adjustment	9,720	9,720
Per Form 5500	\$ 162,155	1,264,797

(8) Net Change in Fair Value of Investments

The net appreciation (depreciation) in fair values of investments for the years ended 30 September 2004 and 2003 is as follows:

	2004	2003
	(In thousands)	
Fixed Income Securities Fund	\$ (3)	(4)
Short-Term Corporate Bond Fund	(333)	137
Balanced Fund	9,867	9,618
Index Stock Fund	13,121	17,412
Growth and Income Stock Fund	24,101	38,215
Growth Stock Fund	2,960	5,842
International Stock Fund	4,315	4,775
Growth and Income Stock Fund II	2,782	1,463
Small Capitalization Equity Fund	3,958	6,981
Company Stock Fund – ESOP	74,587	27,675
Company Stock Fund – Current Year	1,960	875
	\$ 137,315	112,989

(9) Related-Party Transactions

The Plan invests in securities that are investment options of State Street, the trustee of the Plan. The fair value of the assets invested in State Street funds is \$379,009,000 and \$344,235,000 at 30 September 2004 and 2003, respectively. This represents 30% and 31% of net assets available for plan benefits at 30 September 2004 and 2003, respectively.

The Plan holds employer stock valued at \$391,066,000 and \$383,642,000 at 30 September 2004 and 2003, respectively. This represents 31% and 35% of net assets available for plan benefits at 30 September 2004 and 2003, respectively.

AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS AND STOCK OWNERSHIP PLAN

Notes to Financial Statements

30 September 2004 and 2003

(10) Subsequent Event

Effective 1 January 2005, the Plan has been renamed the Air Products and Chemicals, Inc. Retirement Savings Plan. Additionally, the Plan has been amended to provide enhanced Company matching contributions and Company core contributions to new salaried employees hired and former salaried employees rehired on or after 1 November 2004 and to salaried employees as of 31 October 2004 who voluntarily elect to cease accruing credited service under the Air Products and Chemicals, Inc. Salaried Pension Plan effective 1 January 2005. Company core contributions are company contributions to the Plan made to eligible participants based on service and base pay. Eligible participants are not required to contribute to the Plan in order to receive the Company core contribution. The Company core contributions vest after five years of service.

AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS AND STOCK OWNERSHIP PLAN

Schedules of Assets (Held at End of Year)

30 September 2004 and 2003

(In thousands)

Identity of issue	Description	30 September 2004		30 September 2003	
		Cost	Current value	Cost	Current value
* Money Market Fund State Street Yield-Enhanced Short-Term Investment Fund	Money Market Fund Par value	\$ 21,675	21,675	22,647	22,647
* Fixed Income Securities Fund Stable Fixed Income Fund for Employee Benefit Trusts	Guaranteed income contracts, 4.53% and 5.05% (average yield) in 2004 and 2003, respectively	227,970	235,538	200,127	213,265
Short-Term Corporate Bond Fund Vanguard Fixed Income Securities Fund - Short Term Corporate Bond Portfolio	Mutual fund shares: 2,064,752 shares 2,176,326 shares	22,198 —	22,114 —	— 23,371	— 23,613
Balanced Fund Dodge & Cox Balanced Fund	Mutual fund shares: 1,530,739 shares 1,182,284 shares	102,888 —	115,035 —	— 76,526	— 79,698
* Index Stock Fund State Street S&P500 Flagship Fund	Mutual fund shares: 537,259 shares 517,951 shares	98,819 —	108,667 —	— 92,884	— 91,995
Growth and Income Stock Fund Vanguard/Windsor Fund	Mutual fund shares: 3,406,338 shares 3,305,132 shares	178,177 —	188,950 —	— 172,074	— 159,473
Growth Stock Fund SEI Large Cap Growth Fund	Mutual fund shares: 2,144,918 shares 2,162,095 shares	53,581 —	36,764 —	— 58,706	— 34,096
International Stock Fund Templeton Foreign Fund	Mutual fund shares: 3,692,792 shares 3,307,709 shares	36,482 —	40,695 —	— 29,031	— 29,466
Growth and Income Stock Fund II Vanguard Windsor II Fund	Mutual fund shares: 481,702 shares 276,682 shares	22,213 —	24,109 —	— 12,120	— 11,554
Small Capitalization Equity Fund SEI Small Cap Equity Fund	Mutual fund shares: 2,971,063 shares 2,492,357 shares	40,244 —	43,467 —	— 32,019	— 32,288
* Company Stock Fund – ESOP Air Products and Chemicals, Inc.	Common stock: 6,822,524 shares 8,074,103 shares	220,444 —	371,009 —	— 220,067	— 364,142
* Company Stock Fund – Current Year Air Products and Chemicals, Inc.	Common stock: 368,827 shares 432,379 shares	18,505 —	20,057 —	— 18,628	— 19,500
* State Street Bank & Trust Co. Short-Term Investment Fund	Temporary investments par value	13,129	13,129	16,328	16,397
Total investments		1,056,325	1,241,209	974,528	1,098,134
Participants' loans receivable	5% to 12%	—	18,796	—	19,074
Assets held for investment purposes		\$ 1,056,325	1,260,005	974,528	1,117,208

* Represents investments with a party-in-interest.

See accompanying report of independent registered public accounting firm.