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SECURITIES AND EXCHANGE COMMISSION
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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, 2008

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 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**

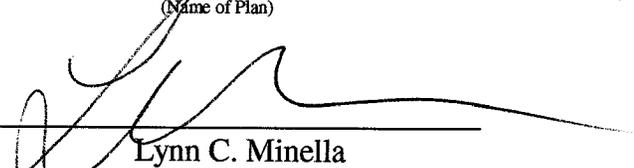
Pursuant to the requirements of the Securities Exchange Act of 1934, the trustees (or other persons who administer the employee benefit plan) have duly caused this Annual Report to be signed on its behalf by the undersigned, hereunto duly authorized.

Air Products and Chemicals, Inc.

Retirement Savings Plan

(Name of Plan)

Dated: March 26, 2009

By: 

Lynn C. Minella
Senior Vice President - Human
Resources and Communication

Consent of Independent Registered Public Accounting Firm

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Air Products and Chemicals, Inc.:

We consent to the incorporation by reference in the registration statement (No. 333-113881) on Form S-8 of Air Products and Chemicals, Inc. of our report dated 26 March 2009, with respect to the statements of net assets available for benefits of the Air Products and Chemicals, Inc. Retirement Savings Plan as of 30 September 2008 and 2007 and the related statements of changes in net assets available for benefits for each of the years in the two-year period ended 30 September 2008, and the related supplemental schedule of assets (held at end of year) as of 30 September 2008, which report appears in the 30 September 2008 annual report on Form 11-K of the Air Products and Chemicals, Inc. Retirement Savings Plan.

KPMG LLP

Philadelphia, Pennsylvania
26 March 2009



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

Financial Statements and Schedule

30 September 2008 and 2007

(With Independent Auditors' Report Thereon)

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

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Note: All other schedules required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974 have been omitted because there is no information to report.



KPMG LLP
1601 Market Street
Philadelphia, PA 19103-2499

Report of Independent Registered Public Accounting Firm

The Plan Administrator
Air Products and Chemicals, Inc. Retirement Savings Plan:

We have audited the accompanying statements of net assets available for benefits of the Air Products and Chemicals, Inc. Retirement Savings Plan (the Plan) as of 30 September 2008 and 2007 and the related statements of changes in net assets available for benefits for the years then ended. These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements 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 net assets available for benefits of the Plan as of 30 September 2008 and 2007, and the changes in net 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 schedule of assets (held at end of year) as of 30 September 2008 is presented for the purpose of additional analysis and is not a required part of the basic financial statements but is 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 schedule is the responsibility of the Plan's management. The supplemental schedule has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

KPMG LLP

26 March 2009

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

Statements of Net Assets Available for Benefits

30 September 2008 and 2007

(In thousands)

	2008	2007
Assets:		
Investments at fair value:		
Interest-bearing cash	\$ 11,996	6,172
Money Market Fund	34,384	31,114
Life Cycle Funds	38,242	26,498
Corporate Bond Fund	24,558	26,996
Balanced Fund	128,850	200,615
S&P 500 Index Stock Fund	95,257	126,218
Large Cap Value Fund	191,829	291,126
Large Cap Growth Fund	52,993	59,342
International Stock Fund	91,356	137,165
Small Capitalization Equity Fund	52,988	71,175
Company Stock Fund – ESOP	388,013	553,142
Fixed Income Securities Fund	212,613	219,083
Brokerage Window	15,362	15,908
Total investments at fair value	1,338,441	1,764,554
Participant loans	17,097	17,351
Total investments	1,355,538	1,781,905
Receivables:		
Accrued interest and dividends	3,130	3,059
Other receivables	1,638	3,919
Total receivables	4,768	6,978
Total assets	1,360,306	1,788,883
Liabilities:		
Payables and accrued liabilities	3,719	2,922
Total liabilities	3,719	2,922
Net assets available for benefits at fair value	1,356,587	1,785,961
Adjustment from fair value to contract value for fully benefit-responsive investment contracts	17,075	6,724
Net assets available for benefits	\$ 1,373,662	1,792,685

See accompanying notes to financial statements.

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

Statements of Changes in Net Assets Available for Benefits

Years ended 30 September 2008 and 2007

(In thousands)

	2008	2007
Additions:		
Employee contributions	\$ 55,696	55,776
Company matching contributions	17,278	17,038
Company Core Contributions, net of forfeitures	8,856	7,881
Interest income	1,971	4,056
Dividend income	72,077	46,153
Net appreciation in fair value of investments	—	293,977
Total additions	155,878	424,881
Deductions:		
Distributions to participants	140,106	134,528
Administrative expenses	217	173
Net depreciation in fair value of investments	434,578	—
Total deductions	574,901	134,701
Net (decrease) increase	(419,023)	290,180
Net assets available for benefits, beginning of year	1,792,685	1,502,505
Net assets available for benefits, end of year	\$ 1,373,662	1,792,685

See accompanying notes to financial statements.

AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS PLAN

Notes to Financial Statements

30 September 2008 and 2007

(1) Description of the Plan

The following description of the Air Products and Chemicals, Inc. Retirement Savings 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 sponsored by Air Products and Chemicals, Inc. (the Company) covering certain full-time and part-time salaried and nonunion hourly employees of the Company and designated subsidiaries. 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 (IRC) after having completed at least 30 days of service. Eligible participants are entitled to make catch-up contributions as allowed by Section 414(v) of the IRC. Company matching contributions are made under IRC Section 401(m). The Plan is subject to the provisions of Employee Retirement Income Security Act (ERISA).

(b) Administration

The Plan is administered by the Company's Senior Vice President – Human Resources and Communication (the Plan Administrator). The Benefits Committee, appointed by the Company's Senior Vice President – Human Resources and Communication, has oversight responsibility for the Plan's administration, and the Pension Investment Committee, appointed by the Finance Committee of the Company's Board of Directors, has oversight responsibility for the investment of the Plan's assets. Fidelity Management Trust (Fidelity) is the trustee of the Plan.

(c) Participant Accounts

Each participant's account is credited with the participant's and the Company's contributions, as well as an allocation of the Plan's earnings or losses and administrative expenses. Allocations are based on participant earnings or account balances, as defined. The benefit to which a participant is entitled is the benefit that can be provided from the participant's vested account balance.

(d) Contributions

Subject to certain IRC 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. 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, IRC Section 414(v).

The Company will match certain contributions to the Plan made by participants. The matching contribution calculation will depend on whether or not the participant receives Company Core Contributions under the Plan. To be eligible for Company Core Contributions, a participant must be (1) a salaried employee hired or rehired after 31 October 2004, (2) an hourly employee who transferred to a salaried status after 31 October 2004, or (3) a salaried employee who made an

AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS PLAN

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30 September 2008 and 2007

election to receive Company Core Contributions under the Plan instead of continuing to earn credited service under the Air Products and Chemicals, Inc. Pension Plan for Salaried Employees (Salaried Pension Plan). Company Core Contributions are made under IRC Section 401(a).

For participants who are receiving Company Core Contributions, the Company will match participant contributions as follows:

- \$0.75 for each \$1.00 of the first 4% of base pay that is contributed, if it is before tax, plus
- \$0.50 cents for each \$1.00 of the next 2% of base pay that is contributed, if it is before tax

For participants who are not receiving Company Core Contributions but rather are earning credited service in the Salaried Pension Plan or in the Pension Plan for Hourly Rated Employees of Air Products and Chemicals, Inc., the Company will match participant contributions as follows:

- \$0.75 cents for each \$1.00 of the first 3% of base pay that is contributed, if it is before tax, plus
- \$0.25 cents for each \$1.00 of the next 3% of base pay that is contributed, either before tax or after tax

Catch-up contributions are not eligible for matching contributions.

Company matching contributions are invested in the Company Stock Fund – ESOP. For the year ended 30 September 2007, the Company's matching contributions could be transferred by the Plan's participants out of the Company Stock Fund at maturity, which occurred two years after the end of the Plan's year during which they were added to the participant's account. Since the participants were restricted from transferring those shares for a two-year period, the Company's matching contributions invested in the Company Stock Funds were considered nonparticipant-directed. As the funds contained both participant-directed and nonparticipant-directed amounts, the Plan deemed the funds to be nonparticipant directed for disclosure purposes (see note 4). Effective 1 October 2007, the Company's matching contributions may be transferred by the Plan's participants to other of the Plan's investment options at any time. As such, for the year ended 30 September 2008, the Company Stock Fund – ESOP is deemed participant directed.

Company Core Contributions are cash contributions made by the Company to eligible participants' accounts in accordance with the participants' investment direction election. The amount of Company Core Contributions is based on participants' service and base pay as follows:

- 4% of base pay if credited service is less than 10 years, or
- 5% of base pay if credited service is between 10 and 19 years, or
- 6% of base pay if credited service is 20 years or more.

Eligible participants are not required to contribute to the Plan in order to receive the Company Core Contribution.

AIR PRODUCTS AND CHEMICALS, INC.
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30 September 2008 and 2007

(e) Contribution Percentage Changes

Contribution percentage changes are effective as soon as administratively possible after receipt of request.

(f) Rollovers

A participant or any other employee who is entitled to make a “rollover contribution” to the Plan under the IRC may make a cash contribution to the Plan of all or a portion of any such rollover contribution amount.

(g) Vesting

Participants are immediately vested in 100% of their elected salary deferrals, rollover contributions, the Company’s matching contributions, and earnings thereon. Prior to 1 October 2007, Company Core Contributions, plus investment earnings thereon, became 100% vested upon completion of five years of service, or, if earlier, upon reaching age 65.

Effective 1 October 2007, a participant vests in Company Core Contributions plus investment earnings thereon, 20% for each year of service reaching 100% after five years of service, or, if earlier, upon reaching age 65.

(h) Forfeitures

Forfeitures can be used by the Company to reduce Company Core Contributions. Forfeitures used to reduce Company Core Contributions for 2008 were approximately \$246,000 and are reflected as a reduction to the Company Core Contributions in the accompanying Statement of Changes in Net Assets Available for Benefits. There were no unallocated forfeitures at year-end.

(i) Withdrawal Provisions

Upon application, but no sooner than 12 months after any earlier withdrawal:

- (a) a participant may withdraw all or a portion of after-tax contributions and earnings thereon;
- (b) after withdrawing all amounts described in subparagraph (a), a participant may withdraw any company matching contributions and earnings thereon;
- (c) after withdrawing all amounts described in subparagraphs (a) and (b), a participant may withdraw before-tax contributions and then vested Company Core Contributions upon:
 - (i) attaining age 59½ 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

**AIR PRODUCTS AND CHEMICALS, INC.
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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.

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, company matching contributions, and all vested Company Core Contributions. This distribution will automatically occur on or about 60 days after the end of the month in which employment ends if the participant's account balance is less than \$1,000. Any outstanding loan balance, which is not repaid within 90 days, will be treated as a taxable distribution. As an exception, at the discretion of the Pension Investment Committee, loan balances may be transferred to a successor employer for participants whose employment ends due to a divestiture of a business or segment of the Company. Participants may elect to roll over distributions directly into another qualified plan or an Individual Retirement Account. The distribution of a participant's account balance may be deferred until the earlier of age 70½ or death.

(j) Participant Loans

Fidelity may make a loan or loans to any participant upon electronic request through the Plan Administrator. Loans 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 participant's vested account balance. The loan must be adequately secured, bear a reasonable interest rate, and be repaid within a maximum of five years, unless such loan is for a principal residence, in which case the loan is to be repaid within a maximum of 25 years.

Loan principal and interest repayments are credited directly to the borrowing participant's plan account 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 to avoid a taxable deemed distribution of the loan balance.

(k) Investment Directions

Participants can elect to have their contributions to the Plan and Company Core Contributions invested in the following funds. Investment fund elections can be made in increments of 1% provided the percentages total 100%:

Money Market Fund (Fidelity Retirement Government Money Market Portfolio) – This fund seeks to provide as high a level of current income as is consistent with the preservation of principal and liquidity, by investing primarily in U.S. government securities and repurchase agreements.

Life Cycle Funds (SSgA Target Retirement Income Fund, SSgA Target Retirement 2010 Fund, SSgA Target Retirement 2015 Fund, SSgA Target Retirement 2020 Fund, SSgA Target Retirement 2025 Fund, SSgA Target Retirement 2030 Fund, SSgA Target Retirement 2035 Fund, SSgA Target Retirement 2040 Fund, SSgA Target Retirement 2045 Fund, and SSgA Target Retirement 2050 Fund) – These funds of funds invest in a portfolio of index commingled funds tracking U.S. Stocks, U.S. bonds, and international stocks. The allocation of assets shifts from one

AIR PRODUCTS AND CHEMICALS, INC.
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weighted more heavily to stocks to one more heavily weighted to bonds as the target date approaches.

Corporate Bond Fund (Western Asset Core Plus Bond – Institutional Class) – This mutual fund seeks to maximize total return by investing in intermediate term (duration of three to seven years) U.S.-dollar-denominated fixed income securities issued by domestic and foreign entities.

Balanced Fund (Dodge & Cox Balanced Fund) – This mutual 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.

S&P 500 Index Stock Fund (SSgA S&P 500 Flagship Fund) – This commingled 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.

Large Cap Value Fund (Vanguard Windsor II Fund) – This mutual 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.

Large Cap Growth Fund (American Funds Growth Fund of America) – This mutual fund seeks long-term growth of principal within the arena of large capitalization growth stocks.

International Stock Fund (Fidelity International Discovery Fund) – This mutual fund invests a majority of its assets in non-U.S. common stocks, with a focus on those that pay current dividends and show potential for capital appreciation. The fund may opportunistically invest in non-U.S. debt securities, including lower-quality debt securities.

Small Capitalization Equity Fund (Fidelity Select Equity Small Capitalization Collective Trust) – This commingled fund seeks long-term capital growth within the arena of domestic 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 the Company's 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.

Fixed Income Securities Fund (SSgA Stable Value Fund) – This fund invests in traditional investment contracts with insurance companies and banks, and short to intermediate term fixed-income securities or portfolios that are “wrapped” by third-party financial institutions that guarantee principal and a predetermined interest rate yield.

Brokerage Window (Fidelity BrokerageLink) – A brokerage account that offers a range of Fidelity and non-Fidelity mutual funds.

**AIR PRODUCTS AND CHEMICALS, INC.
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Participant changes to investment elections can apply to future contributions, accumulated saving, or both. Participant investment election changes completed by 4 p.m. (Eastern Time) are effective the same New York Stock Exchange (NYSE) business day and are reflected in the participant's accounts the next NYSE business day.

Participants may not redirect accumulated savings directly from the Fixed Income Securities Fund to the Money Market Fund or to BrokerageLink.

The fair value of individual investments that represent 5% or more of the Plan's total net assets available for benefits as of 30 September 2008 and 2007 was as follows:

<u>Investment</u>	<u>2008</u>	<u>2007</u>
	(In thousands)	
Balanced Fund	\$ 128,850	200,615
S&P 500 Index Stock Fund	95,257	126,218
International Stock Fund	91,356	137,165
Large Cap Value Fund	191,829	291,126
Company Stock Fund – ESOP*	388,013	553,142
Fixed Income Securities Fund	212,613	219,083

* Nonparticipant-directed investment for 2007

(2) Summary of Accounting Policies

(a) Basis of Accounting

The 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.

Fully benefit-responsive contracts held in the Fixed Income Securities Fund are included in the financial statements at fair value as reported to the Plan by State Street Global Advisors, the investment manager, and are then adjusted to contract value in determining net assets available for benefits.

Certain 2007 balances have been reclassified to conform to the 2008 presentation.

(b) Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of net assets and liabilities and changes therein, and disclosure of contingent assets and liabilities. Actual results could differ from those estimates.

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

Notes to Financial Statements

30 September 2008 and 2007

(c) *Investment Valuation and Income Recognition*

The Plan's investments are stated at fair value. Quoted market prices are used to value investments. Shares of mutual funds are valued at the net asset value of shares held by the Plan at year-end. Participant loans are valued at their outstanding balances, which approximate fair value. The fair value of the contracts held in the Fixed Income Securities Fund is calculated by State Street Global Advisors by discounting the related cash flows based on current yields of similar instruments with comparable durations (see note 3). Interest-bearing cash is presented separately as a temporary investment.

Purchases and sales are recorded on a trade-date basis. Dividends are recorded on the dividend payable date.

In September 2006, the Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standards No. 157 (SFAS 157), *Fair Value Measurements*. SFAS 157 establishes a single authoritative definition of fair value, sets out a framework for measuring fair value and requires additional disclosures about fair value measurement. SFAS 157 is effective for financial statements issued for fiscal years beginning after 15 November 2007. The Plan is currently evaluating the impact, if any, the adoption of SFAS 157 will have on the Plan's financial statements.

(d) *Risks and Uncertainties*

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 with certain investment securities, it is reasonably possible that changes in the values of investment securities will occur in the near term and could materially impact participants' account balances and the amounts reported in the accompanying Statements of Net Assets Available for Benefits. The Plan's exposure to a concentration of credit risk is dependent upon the investment allocations selected by the Plan's participants. At 30 September 2008 and 2007, 28% and 31% of the Plan's net assets, respectively, were invested in the common stock of the Company. The underlying value of the Company's stock is impacted by the performance of the Company, the market's evaluation of such performance, and other factors.

(e) *Payment of Benefits*

Benefits are recorded when paid.

(3) *Fixed Income Securities Fund*

Contributions made to the Fixed Income Securities Fund (Fund) are invested in traditional investment contracts with insurance companies and other financial institutions, and short to intermediate term fixed-income securities or portfolios that are "wrapped" by third-party financial institutions that guarantee principal and a predetermined interest rate yield. The contract issuers of the traditional investment contracts and the wrap providers are highly rated financial institutions. The contracts held in this Fund are deemed fully benefit-responsive as they provide that the Plan's participants may make withdrawals at contract value. As described in note 2, because the contracts are deemed fully benefit-responsive, contract value is the relevant measurement attributable for the contracts held in the Fund. Contract value represents

**AIR PRODUCTS AND CHEMICALS, INC.
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contributions made under the contract, plus earnings, less participant withdrawals and administrative expenses.

The Fund's contracts are included in the accompanying Statements of Net Assets Available for Benefits at fair value, and are then adjusted to contract value in determining net assets available for benefits. The contract value of the contracts in this portfolio was \$229,688,000 and \$225,807,000 at 30 September 2008 and 2007, respectively.

No valuation reserves were recorded against the contract value for credit risk of the contract issuers or otherwise for the Fund at 30 September 2008 and 2007. The average annualized yield was 3.19% and 3.83% as of 30 September 2008 and 2007, respectively. The Fund's annualized crediting interest rates as of 30 September 2008 and 2007 were 3.72% and 5.03%, respectively. The crediting interest rate is based on the provisions agreed upon with the issuer, which reset monthly, but it may not be less than zero.

Participants may ordinarily direct the withdrawal or transfer of all or a portion of their investment at contract value. Certain events, although considered unlikely and not probable, such as a change in administration or operation of the Plan or Fund, group terminations, layoffs, or exclusion of group eligibility in the Plan, may limit the ability of participants to access their investments at contract value. The contract issuers may terminate the contracts in the unlikely event of a default by the Plan.

(4) Nonparticipant-Directed Investments

Net assets relating to nonparticipant-directed investments were \$0 at 30 September 2008 and \$561,353 at 30 September 2007. The components of changes in net assets relating to nonparticipant-directed investments for the years ended 30 September 2008 and 2007 were as follows:

	<u>2008</u>	<u>2007</u>
	(In thousands)	
Beginning balance	\$ 561,353	429,957
Employee contributions	—	5,848
Employer matching contributions	—	17,038
Company Core Contributions, net of forfeitures	—	603
Interest income	—	328
Dividend income	—	8,232
Net appreciation in fair value of investments	—	186,848
Distributions to participants	—	(32,521)
Administrative expenses	—	(59)
Transfers to participant-directed investments (note 1)	(561,353)	(54,264)
Net transfers to participant loan fund	—	(657)
	<u>—</u>	<u>561,353</u>
Total nonparticipant-directed investments	\$ <u>—</u>	<u>561,353</u>

As discussed in note 1, effective 1 October 2007, participants may immediately transfer up to 100% of any existing or future company matching contributions to participant-directed investments.

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

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(5) Income Tax Status

The Internal Revenue Service has determined and informed the Company, by letter dated 20 August 2003, that the Plan and related trust are designed in accordance with applicable sections of the IRC. Although the Plan has been amended since receiving the determination letter, the Plan Administrator and the Plan's tax counsel believe that the Plan is designed and is currently being operated in compliance with the applicable requirements of the IRC. No provision for income taxes has been included in the Plan's financial statements.

(6) Expenses of the Plan

All reasonable third-party fees and expenses for administration of the Plan have been paid by the Plan, including (but not limited to) trustee fees, record-keeping fees, audit fees, proxy voting fees, and communication expenses. Such expenses are assessed to participant accounts as a quarterly administrative charge. Expenses incident to the management of the Plan's investments are deducted from the earnings of the respective investments.

(7) 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 be fully vested.

(8) Net Change in Fair Value of Investments

The net appreciation (depreciation) in fair values of investments (including gains and losses on investments bought and sold, as well as held during the year) for the years ended 30 September 2008 and 2007 is as follows:

	2008	2007
	(In thousands)	
Money Market Fund	\$ —	1
Life Cycle Funds	(5,792)	1,946
Corporate Bond Fund	(3,050)	(559)
Balanced Fund	(59,345)	4,998
S&P 500 Index Stock Fund	(27,851)	19,031
Large Cap Growth Fund	(19,619)	8,033
International Stock Fund	(48,217)	27,546
Large Cap Value Fund	(98,613)	24,729
Small Capitalization Equity Fund	(15,587)	10,969
Company Stock Fund – ESOP	(160,581)	180,613
Company Stock Fund – Current Year	—	6,235
Fixed Income Securities Fund	8,848	8,750
Brokerage Window	(4,771)	1,685
	\$ (434,578)	293,977

**AIR PRODUCTS AND CHEMICALS, INC.
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30 September 2008 and 2007

The financial and capital markets experienced significant disruptions and volatility during the second half of 2007 and throughout 2008. Turmoil in the mortgage market adversely impacted both domestic and global markets and led to significant credit and liquidity crisis. The Plan's investments are not immune to negative consequences arising from overall economic weaknesses. As a result, during 2008, the Plan's investments have experienced declines in fair value. The turmoil experienced in the financial and capital markets has continued to have a significant impact on the Plan's investments into 2009.

(9) Related-Party Transactions

The Plan holds common stock of the Company, representing qualifying equity securities as defined by ERISA, valued at \$388,013,000 and \$553,142,000, representing 28% and 31% of net assets available for plan benefits at 30 September 2008 and 2007, respectively.

The Plan invests in funds managed by Fidelity valued at \$206,086,000 and \$261,534,000 representing 15% of net assets available for plan benefits at 30 September 2008 and 2007, respectively.

(10) Reconciliation of Financial Statements to Form 5500

The following is a reconciliation of net assets available for benefits per the financial statements at 30 September 2008 and 2007 to Form 5500:

	2008	2007
	(In thousands)	
Net assets available for benefits per the financial statements	\$ 1,373,662	1,792,685
Amounts allocated to withdrawing participants	(3,646)	—
Net assets available for benefits per the Form 5500	\$ 1,370,016	1,792,685

The following is a reconciliation of benefits paid to participants per the financial statements for the years ended 30 September 2008 and 2007 to Form 5500:

	2008	2007
	(In thousands)	
Distributions to participants per the financial statements	\$ 140,106	134,528
Add amounts allocated to withdrawing participants at 30 September 2008	3,646	—
Less amounts allocated to withdrawing participants at 30 September 2007	—	—
Distributions to participants per the Form 5500	\$ 143,752	134,528

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

Schedule

Schedule of Assets (Held at End of Year)

30 September 2008

(In thousands)

Identity of issue	Description	Fair value
* Fidelity Trust Management Company: Interest-bearing cash	Cash	\$ 11,996
* Money Market Fund: Fidelity Retirement Government Money Market Portfolio	Money market fund; par value	34,384
Life Cycle Funds (Retirement dated) 10 funds: SSgA Age-Based Lifetime Income Strategy plus funds targeted for 2010, 2015, 2020, 2025, 2030, 2035, 2040, 2045, and 2050	Commingled investment pool	38,242
Corporate Bond Fund: Western Asset Core Plus Bond Fund	Mutual fund shares: 2,675,174 shares	24,558
Balanced Fund: Dodge & Cox Balanced Fund	Mutual fund shares: 2,085,627 shares	128,850
S&P 500 Index Stock Fund: State Street S&P 500 Flagship Fund	Commingled investment pool	95,257
Large Cap Value Fund: Vanguard Windsor II Fund	Mutual fund shares: 4,340,025 shares	191,829
Large Cap Growth Fund: American Funds Growth Fund of America	Mutual fund shares: 1,962,689 shares	52,993
* International Stock Fund: Fidelity International Discovery Fund	Mutual fund shares: 3,047,219 shares	91,356
* Small Capitalization Equity Fund: Fidelity Select Equity Small Capitalization Collective Trust	Commingled Investment Pool	52,988
* Company Stock Fund – ESOP: Air Products and Chemicals, Inc. Common Stock	Common stock: 5,665,251 shares Historical cost: \$270,885	388,013
Fixed Income Securities Fund: State Street Stable Value Fund for Employee Benefit Trusts	Guaranteed investment contracts, 3.2% (average yield) in 2008	212,613
* Brokerage Window: Fidelity BrokerageLink	Brokerage window for many publicly available mutual funds	15,362
Total investments		<u>\$ 1,338,441</u>
* Participant loans	5% to 12.5%	\$ 17,097
* Represents investments with a party in interest.		

See accompanying independent auditors' report.