UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported) April 21, 2011

Air Products and Chemicals, Inc.

(Exact Name of Registrant as Specified in Charter)

Delaware (State or Other Jurisdiction of Incorporation) 1-4534 (Commission File Number) 23-1274455 (IRS Employer Identification No.)

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

(610) 481-4911

Registrant's telephone number, including area code

not applicable

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (See General Instruction A.2. below):

□ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

Dere-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 2.02. Results of Operations and Financial Condition.

On April 21, 2011, the company issued a press release announcing its earnings for the second quarter of fiscal year 2011. A copy of the press release is attached as Exhibit 99.1 to this Form 8-K. The press release, including all financial statements, is furnished and is not deemed to be filed.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits

99.1 Press Release dated April 21, 2011.

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 hereunto duly authorized.

<u>Air Products and Chemicals, Inc.</u> (Registrant)

Dated: April 21, 2011

By:

/s/ Paul E. Huck Paul E. Huck Senior Vice President and Chief Financial Officer

3

Exhibit No. Description

99.1 Press Release dated April 21, 2011.



Air Products and Chemicals, Inc. 7201 Hamilton Boulevard Allentown, PA 18195-1501

Air Products Reports Fiscal Q2 EPS Up 15% to \$1.41*

Access the Q2 earnings teleconference scheduled for 10:00 a.m. Eastern Time on April 21 by calling 719-457-2607 and entering passcode 9627835, or listen on the Web at: www.airproducts.com/Invest/financialnews/Earnings_Releases/Teleconference.htm.

Highlights

- Sales of \$2.5 billion, up 11% versus prior year
- Operating margin hits 17% target, up 80 basis points versus prior year*
- Raised dividend 18%; Completed \$350 million share repurchase
- Full year guidance increased to \$5.65 to \$5.75 per share

LEHIGH VALLEY, Pa. (April 21, 2011) – Air Products (NYSE:APD) today reported net income of \$309 million, or diluted earnings per share (EPS) of \$1.41, for its fiscal second quarter ended March 31, 2011. This result excludes a net after-tax cost of \$4 million, or \$0.02 per share, associated with the now expired tender offer for the outstanding shares of Airgas, Inc.

The discussion of second quarter results and guidance in this release is based on non-GAAP comparisons. A reconciliation can be found at the end of this release.*

Second quarter revenues of \$2,501 million grew 11 percent versus prior year, primarily on higher volumes in the Electronics and Performance Materials, Merchant Gases and Tonnage Gases segments. Sequential sales were up five percent. Operating income of \$425 million improved 17 percent versus prior year and five percent sequentially on increased volumes. Operating margin improved 80 basis points to 17 percent.

"For the quarter, we had strong growth with double-digit increases in both sales and earnings. This performance, along with our 18 percent dividend increase and \$350 million share repurchase, reflects the strength of our business and our belief that shareholders should benefit directly from the improved operating performance of their company," said John McGlade, chairman, president and chief executive officer.

Second Quarter Segment Performance

- Merchant Gases sales of \$1,013 million increased 10 percent versus the prior year on improved volumes, especially in the Asia region. Operating
 income of \$185 million rose four percent from the prior year with increased volumes being offset by higher operating, maintenance and distribution
 costs, and lower pricing in our European healthcare business.
- Tonnage Gases sales of \$799 million increased six percent. Volumes were up 10

Page 2 of 11

percent, primarily on improved hydrogen volumes to refining customers. Operating income of \$121 million rose 13 percent from the prior year on higher new plant volumes and increased operating efficiencies.

- Electronics and Performance Materials sales of \$576 million increased 28 percent driven by strong volumes and higher pricing. Record operating income of \$92 million was up 61 percent on significantly improved volumes. Operating margin of 15.9 percent was up 330 basis points versus prior year and 280 basis points sequentially.
- Equipment and Energy sales of \$114 million were down five percent on lower air separation unit sales. Operating income of \$23 million increased 24 percent from the prior year on higher LNG activity.

Outlook

Looking ahead, McGlade said, "We are committed to improving our operating performance by driving increased productivity to the bottom line. This, along with continued growth in our key markets will allow us to build on this quarter's strong results."

He said, "Looking at the second half of our fiscal year, we expect to deliver on our goals of double digit earnings growth, improved return on capital and a 17 percent margin. We are also raising our full year guidance to \$5.65 to \$5.75 per share."

Air Products now expects third quarter EPS to be between \$1.42 and \$1.47 per share.

Air Products (NYSE:APD) serves customers in industrial, energy, technology and healthcare markets worldwide with a unique portfolio of atmospheric gases, process and specialty gases, performance materials, and equipment and services. Founded in 1940, Air Products has built leading positions in key growth markets such as semiconductor materials, refinery hydrogen, home healthcare services, natural gas liquefaction, and advanced coatings and adhesives. The company is recognized for its innovative culture, operational excellence and commitment to safety and the environment. In fiscal 2010, Air Products had revenues of \$9 billion, operations in over 40 countries, and 18,300 employees around the globe. For more information, visit <u>www.airproducts.com</u>.

Note: This release contains "forward-looking statements" within the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, including earnings guidance, projections and targets. These forward-looking statements are based on management's reasonable expectations and assumptions as of the date this release is issued regarding important risk factors. Actual performance and financial results may differ materially from projections and estimates expressed in the forward-looking statements because of many factors not anticipated by management, including, without limitation, slowing of global economic recovery; renewed deterioration in economic and business conditions; weakening demand for the Company's products; future financial and operating performance of major customers and industries served by the Company; unanticipated contract terminations or customer cancellations or postponement of projects and sales; the success of commercial negotiations; asset impairments due to economic conditions or specific product or customer events; the impact of competitive products and pricing; interruption in ordinary sources of supply of raw materials; the ability to recover unanticipated increased energy and raw

```
-more-
```

Page 3 of 11

material costs from customers; costs and outcomes of litigation or regulatory activities; successful development and market acceptance of new products and applications, the ability to attract, hire and retain qualified personnel in all regions of the world where the Company operates; consequences of acts of war or terrorism impacting the United States and other markets; the effects of a natural disaster; the success of cost reduction and productivity programs and achieving anticipated acquisition synergies; the timing, impact, and other uncertainties of future acquisitions or divestitures; significant fluctuations in interest rates and foreign currencies from that currently anticipated; the continued availability of capital funding sources in all of the Company's foreign operations; the impact of environmental, healthcare, tax or other legislation and regulations in jurisdictions in which the Company and its affiliates operate; the impact of new or changed financial accounting guidance; the timing and rate at which tax credits can be utilized and other risk factors described in the Company's Form 10K for its fiscal year ended September 30, 2010. The Company disclaims any obligation or undertaking to disseminate any updates or revisions to any forward-looking statements contained in this document to reflect any change in the Company's assumptions, beliefs or expectations or any change in events, conditions, or circumstances upon which any such forward-looking statements are based.

Page 4 of 11

* The presentation of non-GAAP measures is intended to enhance the usefulness of financial information by providing measures which our management uses internally to evaluate our baseline performance on a comparable basis. Presented below are reconciliations of the reported GAAP results to the non-GAAP measures.

CONSOLIDATED RESULTS

2011 Q2 vs. 2010 Q2	Operating Income	Operating Margin	Net Income	Diluted EPS
2011 GAAP	\$ 419.5	16.8%	\$ 304.3	\$ 1.39
2010 GAAP	340.6	15.1%	252.0	1.16
Change GAAP	23%	170bp	21%	20%
2011 GAAP	\$ 419.5	16.8%	\$ 304.3	\$ 1.39
Net loss on Airgas transaction (Tax impact \$.6)	5.0	0.2%	4.4	.02
2011 Non-GAAP Measure	\$ 424.5	17.0%	\$ 308.7	\$ 1.41
2010 GAAP	\$ 340.6	15.1%	\$ 252.0	\$ 1.16
Net loss on Airgas transaction (Tax impact \$8.8)	23.4	1.1%	14.6	.07
2010 Non-GAAP Measure	\$ 364.0	16.2%	\$ 266.6	\$ 1.23
Change Non-GAAP Measure	17%	80bp	16%	15%
2011 Q2 vs. 2011 Q1	Operating Income			
2011 Q2 GAAP	\$ 419.5			
2011 Q1 GAAP	\$ 360.6			
Change GAAP	16%			
2011 Q2 Non-GAAP Measure	\$ 424.5			
2011 Q1 GAAP	\$ 360.6			
Net loss on Airgas transaction	43.5			
2011 Q1 Non-GAAP Measure	\$ 404.1			
Change Non-GAAP Measure	5%			
			Q3 2011	Full Year 2011
2011 Guidance (a)		2	\$1.42-\$1.47	\$5.65-\$5.75

(a) Guidance excludes the impact of net loss on Airgas transaction

Page 5 of 11

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

		Three Months Ended 31 March		hs Ended Iarch
(Millions of dollars, except for share data)	2011	2010	2011	2010
Sales	\$2,501.3	\$2,249.0	\$4,893.0	\$4,422.5
Cost of sales	1,802.5	1,628.7	3,523.0	3,197.3
Selling and administrative	259.4	240.4	504.0	484.5
Research and development	27.9	26.3	57.1	53.5
Net loss on Airgas transaction	5.0	23.4	48.5	23.4
Other income, net	13.0	10.4	19.7	21.8
Operating Income	419.5	340.6	780.1	685.6
Equity affiliates' income	31.7	32.2	59.5	59.1
Interest expense	29.4	29.5	60.4	61.1
Income before Taxes	421.8	343.3	779.2	683.6
Income tax provision	110.3	84.9	191.8	168.4
Net Income	311.5	258.4	587.4	515.2
Less: Net Income Attributable to Noncontrolling Interests	7.2	6.4	14.5	11.4
Net Income Attributable to Air Products	\$ 304.3	\$ 252.0	\$ 572.9	\$ 503.8
Basic Earnings per Common Share Attributable to Air Products	\$ 1.42	\$ 1.19	\$ 2.68	\$ 2.38
Diluted Earnings per Common Share Attributable to Air Products	\$ 1.39	\$ 1.16	\$ 2.62	\$ 2.32
Weighted Average of Common Shares Outstanding (in millions)	213.8	212.1	214.0	211.9
Weighted Average of Common Shares Outstanding Assuming Dilution (in millions)	218.8	216.9	219.0	217.0
Dividends Declared per Common Share – Cash	\$.58	\$.49	\$ 1.07	\$.94
Other Data from Operations:				
Depreciation and amortization	\$ 217.5	\$ 217.3	\$ 435.1	\$ 434.4
Capital expenditures on a non-GAAP Basis	383.9	354.0	752.9	699.2

(see page 11 for reconciliation)

Page 6 of 11

AIR PRODUCTS AND CHEMICALS, INC. and Subsidiaries CONDENSED CONSOLIDATED BALANCE SHEETS (Unaudited)

(Millions of dollars)	31 March 2011	30 September 2010
Assets		
Current Assets		
Cash and cash items	\$ 270.3	\$ 374.3
Trade receivables, less allowances for doubtful accounts	1,606.1	1,481.9
Inventories	597.2	571.6
Contracts in progress, less progress billings	123.0	163.6
Prepaid expenses	112.6	70.3
Other receivables and current assets	267.3	372.1
Total Current Assets	2,976.5	3,033.8
Investment in Net Assets of and Advances to Equity Affiliates	979.3	912.8
Plant and Equipment, at cost	17,119.8	16,309.7
Less: Accumulated depreciation	9,758.0	9,258.4
Plant and Equipment, net	7,361.8	7,051.3
Goodwill	945.6	914.6
Intangible Assets, net	288.7	285.7
Noncurrent Capital Lease Receivables	882.4	770.4
Other Noncurrent Assets	386.4	537.3
Total Assets	\$13,820.7	\$ 13,505.9
Liabilities and Equity		
Current Liabilities		
Payables and accrued liabilities	\$ 1,460.8	\$ 1,702.0
Accrued income taxes	66.4	73.6
Short-term borrowings	662.1	286.0
Current portion of long-term debt	22.0	182.5
Total Current Liabilities	2,211.3	2,244.1
Long-Term Debt	3,711.8	3,659.8
Other Noncurrent Liabilities	1,492.2	1,569.3
Deferred Income Taxes	406.2	335.1
Total Liabilities	7,821.5	7,808.3
Total Air Products Shareholders' Equity	5,825.2	5,546.9
Noncontrolling Interests	174.0	150.7
Total Equity	5,999.2	5,697.6
Total Liabilities and Equity	\$13,820.7	\$ 13,505.9

Page 7 of 11

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

	Six Months Ended 31 March	
(Millions of dollars)	2011	2010
Operating Activities		
Net Income	\$ 587.4	\$ 515.2
Less: Net income attributable to noncontrolling interests	14.5	11.4
Net income attributable to Air Products	\$ 572.9	\$ 503.8
Adjustments to reconcile income to cash provided by operating activities:		
Depreciation and amortization	435.1	434.4
Deferred income taxes	62.1	133.2
Undistributed earnings of unconsolidated affiliates	(7.7)	(29.6
Gain on sale of assets and investments	(6.1)	(1.4
Share-based compensation	21.9	22.7
Noncurrent capital lease receivables	(98.4)	(71.0
Net loss on Airgas transaction	48.5	23.4
Payment of acquisition-related costs	(153.8)	(2.4
Other adjustments	51.7	39.0
Working capital changes that provided (used) cash, excluding effects of acquisitions and divestitures:		
Trade receivables	(82.0)	(129.9
Inventories	(15.2)	(3.9
Contracts in progress	42.6	17.3
Other receivables	11.0	(10.9
Payables and accrued liabilities	(233.9)	(332.4
Other working capital	(22.0)	(49.6
ash Provided by Operating Activities	626.7	542.7
ivesting Activities		
Additions to plant and equipment	(612.7)	(516.9
Acquisitions, less cash acquired		(34.9
Investment in and advances to unconsolidated affiliates	(24.2)	(4.5
Investment in Airgas stock	_	(69.6
Proceeds from sale of Airgas stock	94.7	
Proceeds from sale of assets and investments	51.3	22.0
Change in restricted cash	10.4	25.2
ash Used for Investing Activities	(480.5)	(578.7
inancing Activities		
Long-term debt proceeds	43.0	67.4
Payments on long-term debt	(172.1)	(83.0
Net increase (decrease) in commercial paper and short-term borrowings	341.3	(55.6
Dividends paid to shareholders	(210.1)	(190.5
Purchase of treasury stock	(350.0)	
Proceeds from stock option exercises	72.6	35.4
Excess tax benefit from share-based compensation	18.6	9.7
Other financing activities	.8	(2.5
Cash Used for Financing Activities	(255.9)	(219.1

Page 8 of 11

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

		Six Months Ended 31 March	
(Millions of dollars)	2011	2010	
Effect of Exchange Rate Changes on Cash	5.7	(2.2)	
Decrease in Cash and Cash Items	(104.0)	(257.3)	
Cash and Cash Items – Beginning of Year	374.3	488.2	
Cash and Cash Items – End of Period	\$ 270.3	\$ 230.9	
Supplemental Cash Flow Information			
Pension plan contributions	\$ 221.4	\$ 337.7	
Significant noncash transaction:			
Short-term borrowings associated with SAGA acquisition	—	60.6	

Page 9 of 11

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

					iths Ended March	
(Millions of dollars)	2011	2010	2	2011		2010
Revenues from External Customers						
Merchant Gases	\$1,012.7	\$ 921.7	\$ 2	2,000.5	\$	1,855.3
Tonnage Gases	799.2	756.7	1	1,565.2		1,454.6
Electronics and Performance Materials	575.9	451.2	1	1,101.9		884.6
Equipment and Energy	113.5	119.4		225.4		228.0
Segment and Consolidated Totals	\$2,501.3	\$2,249.0	\$ 4	4,893.0	\$	4,422.5
Operating Income						
Merchant Gases	\$ 185.1	\$ 178.1	\$	385.5	\$	367.7
Tonnage Gases	120.9	107.2		236.5		207.4
Electronics and Performance Materials	91.6	57.0		160.6		105.4
Equipment and Energy	22.5	18.2		42.7		26.0
Segment Totals	\$ 420.1	\$ 360.5	\$	825.3	\$	706.5
Net loss on Airgas transaction	(5.0)	(23.4)		(48.5)		(23.4)
Other	4.4	3.5		3.3		2.5
Consolidated Totals	\$ 419.5	\$ 340.6	\$	780.1	\$	685.6
(Millions of dollars)			31 March 2011		30	September 2010
Identifiable Assets (a)						
Merchant Gases			\$ 5	5,241.9	\$	5,075.3
Tonnage Gases			4	4,186.3		3,876.4
Electronics and Performance Materials			2	2,382.7		2,275.8
Equipment and Energy				315.7		341.3
Segment Totals			\$12	2,126.6	\$	11,568.8
Other				714.8		1,024.3
Consolidated Totals			\$12	2,841.4	\$	12,593.1

(a) Identifiable assets are equal to total assets less investment in net assets and advances to equity affiliates.

Page 10 of 11

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

(Millions of dollars, unless otherwise indicated)

AIRGAS TRANSACTION

In February 2010, we commenced a tender offer to acquire all the outstanding common stock of Airgas, Inc. (Airgas), including the associated preferred stock purchase rights, for \$60.00 per share in cash, less any required withholding tax. The offer was subject to certain terms and conditions set forth in the Offer to Purchase dated 11 February 2010, as amended, including Airgas' redemption of the preferred stock purchase rights or such rights otherwise being inapplicable to our purchase of Airgas stock. Airgas, a Delaware company, is the largest U.S. distributor of industrial, medical, and specialty gases, and hard goods. On 9 December 2010, we increased the value of our tender offer to \$70.00 per share. At this price, the total value of the transaction would have been approximately \$7.8 billion, including \$6.1 billion of equity and \$1.7 billion of assumed debt. Based on a decision by the Delaware Chancery Court to uphold the decision of Airgas' board of directors to retain the preferred stock purchase rights, we withdrew our offer on 15 February 2011.

In connection with the tender offer, we had secured committed financing in the form of a \$6.7 billion term loan credit facility. On 3 February 2011, we entered into an amended and restated credit agreement providing for an amended \$6.7 billion term loan credit facility with a maturity date of 4 June 2011. No additional underwriting fees were incurred in relation to the amended agreement. On 16 February 2011, in connection with the termination of the offer to purchase all outstanding shares of common stock of Airgas, the credit facility was terminated. No early termination penalties were incurred and all fees previously accrued and due under the credit facility were paid as of the date of termination.

Prior to the tender offer, we purchased approximately 1.5 million shares of Airgas stock for a total cost of \$69.6. This amount was recorded as an available-forsale investment within other noncurrent assets on the consolidated balance sheet. On 16 February 2011, we sold the 1.5 million shares of Airgas stock for total proceeds of \$94.7 and recognized a gain of \$25.1 (\$15.9 after-tax, or \$.07 per share).

For the three and six months ended 31 March 2011, a net loss of \$5.0 (\$4.4 after-tax, or \$.02 per share) and \$48.5 (\$31.6 after-tax, or \$.14 per share), respectively, was recognized related to this transaction. These amounts are reflected separately on the consolidated income statement within "Net loss on Airgas transaction" and include amortization of the fees related to the term loan credit facility, the gain on the sale of Airgas stock and other acquisition-related costs. For the six months ended 31 March 2011 and 2010, cash payments for the acquisition-related costs were \$153.8 and \$2.4, respectively. These payments are classified as operating activities on the consolidated statements of cash flows.

Page 11 of 11

RECONCILIATION NON-GAAP MEASURE

We utilize a non-GAAP measure in the computation of capital expenditures and include spending associated with facilities accounted for as capital leases. Certain contracts associated with facilities that are built to provide product to a specific customer are required to be accounted for as leases, and such spending is reflected as a use of cash within cash provided by operating activities. The presentation of this non-GAAP measure is intended to enhance the usefulness of information by providing a measure which our management uses internally to evaluate and manage our expenditures.

Below is a reconciliation of capital expenditures on a GAAP basis to a non-GAAP measure.

		Three Months Ended 31 March		Six Months Ended 31 March	
(Millions of dollars)	2011	2010	2011	2010	
Capital expenditures – GAAP basis	\$ 330.0	\$ 315.2	\$636.9	\$616.9	
Capital lease expenditures	53.9	38.8	116.0	82.3	
Capital expenditures – non-GAAP basis	\$ 383.9	\$ 354.0	\$752.9	\$699.2	

#

Media Inquiries:

Robert Brown, tel: (610) 481-1192; e-mail: <u>brownrf@airproducts.com</u>.

Investor Inquiries:

Simon Moore, tel: (610) 481-7461; e-mail: mooresr@airproducts.com.