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 December 2010

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

7201 Hamilton Boulevard, Allentown, Pennsylvania (Address of Principal Executive Offices)

Accelerated filer

18195-1501 (Zip Code)

610-481-4911

(Registrant's Telephone Number, Including Area Code)

Not Applicable

(Former Name, Former Address and Former Fiscal Year, if Changed Since Last Report)

Indicate by check mark 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 <u>u</u> No ____

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes <u>u</u> No ____

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer <u>ü</u>

____ Non-accelerated filer ____ (Do not check if a smaller reporting company) Smaller reporting company _____

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). 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 18 January 2011
Common Stock, \$1 par value	214,919,795

AIR PRODUCTS AND CHEMICALS, INC. and Subsidiaries INDEX

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PART I. FINANCIAL INFORMATION Item 1. Financial Statements

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

(Millions of dollars, except for share data)	31 December 2010	30 September 2010
Assets		
Current Assets		
Cash and cash items	\$ 247.2	\$ 374.3
Trade receivables, less allowances for doubtful accounts	1,485.7	1,481.9
Inventories	584.5	571.6
Contracts in progress, less progress billings	153.7	163.6
Prepaid expenses	70.3	70.3
Other receivables and current assets	328.8	372.1
Total Current Assets	2,870.2	3,033.8
Investment in Net Assets of and Advances to Equity Affiliates	912.0	912.8
Plant and Equipment, at cost	16,572.3	16,309.7
Less: Accumulated depreciation	9,414.8	9,258.4
Plant and Equipment, net	7,157.5	7,051.3
Goodwill	912.2	914.6
Intangible Assets, net	277.1	285.7
Noncurrent Capital Lease Receivables	810.7	770.4
Other Noncurrent Assets	520.0	537.3
Total Assets	\$ 13,459.7	\$ 13,505.9
Liabilities and Equity		
Current Liabilities	¢ 1 450 1	¢ 1,700,0
Payables and accrued liabilities	\$ 1,458.1	\$ 1,702.0
Accrued income taxes	104.4	73.6
Short-term borrowings	320.9	286.0
Current portion of long-term debt	53.7	182.5
Total Current Liabilities	1,937.1	2,244.1
Long-Term Debt	3,617.4	3,659.8
Other Noncurrent Liabilities	1,535.7	1,569.3
Deferred Income Taxes	392.3	335.1
Total Liabilities	7,482.5	7,808.3
Commitments and Contingencies – See Note 10		
Air Products Shareholders' Equity		
Common stock (par value \$1 per share; 2011 and 2010 – 249,455,584 shares)	249.4	249.4
Capital in excess of par value	784.9	802.2
Retained earnings	8,014.6	7,852.2
Accumulated other comprehensive income (loss)	(1,107.3)	(1,159.4)
Treasury stock, at cost (2011 – 34,535,789 shares; 2010 – 35,652,719 shares)	(2,131.6)	(2,197.5)
Total Air Products Shareholders' Equity	5,810.0	5,546.9
Noncontrolling Interests	167.2	150.7
Total Equity	5,977.2	5,697.6
Total Liabilities and Equity	\$ 13,459.7	\$ 13,505.9

The accompanying notes are an integral part of these statements.

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

	Three Mo	onths Ended
	31 De	ecember
(Millions of dollars, except for share data)	2010	2009
Sales	\$2,391.7	\$2,173.5
Cost of sales	1,720.5	1,568.6
Selling and administrative	244.6	244.1
Research and development	29.2	27.2
Acquisition-related costs	43.5	—
Other income, net	6.7	11.4
Operating Income	360.6	345.0
Equity affiliates' income	27.8	26.9
Interest expense	31.0	31.6
Income before Taxes	357.4	340.3
Income tax provision	81.5	83.5
Net Income	275.9	256.8
Less: Net Income Attributable to Noncontrolling Interests	7.3	5.0
Net Income Attributable to Air Products	\$ 268.6	\$ 251.8
Basic Earnings Per Common Share Attributable to Air Products	\$ 1.25	\$ 1.19
Diluted Earnings Per Common Share Attributable to Air Products	\$ 1.23	\$ 1.16
Weighted Average of Common Shares Outstanding (in millions)	214.2	211.7
Weighted Average of Common Shares Outstanding		
Assuming Dilution (in millions)	219.2	217.0
Dividends Declared Per Common Share – Cash	\$.49	\$.45

The accompanying notes are an integral part of these statements.

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

	Three Mon 31 Dec	
(Millions of dollars)	2010	2009
Net Income	\$ 275.9	\$ 256.8
Other Comprehensive Income, net of tax:		
Translation adjustments, net of tax (benefit) of \$15.2 and \$8.3	48.0	34.9
Net gain (loss) on derivatives, net of tax (benefit) of \$(4.0) and \$(1.1)	(6.2)	(2.4)
Unrealized holding gain (loss) on available-for-sale securities, net of tax (benefit) of \$(3.1) and \$.1	(5.2)	.1
Reclassification adjustments:		
Derivatives, net of tax (benefit) of \$4.2 and \$.8	7.0	2.5
Available-for-sale securities, net of tax (benefit) of \$(.1)	(.2)	_
Pension and postretirement benefits, net of tax (benefit) of \$8.7 and \$6.5	16.5	12.4
Total Other Comprehensive Income	59.9	47.5
Comprehensive Income	335.8	304.3
Comprehensive Income Attributable to Noncontrolling Interests	15.1	5.9
Comprehensive Income Attributable to Air Products	\$ 320.7	\$ 298.4

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The accompanying notes are an integral part of these statements.

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

	ecembe:	ſ
(Millions of dollars) 2010		2009
Operating Activities		
Net Income \$ 275.9	\$	256.8
Less: Net income attributable to noncontrolling interests 7.3		5.0
Net income attributable to Air Products\$ 268.6	\$	251.8
Adjustments to reconcile income to cash provided by operating activities:		
Depreciation and amortization 217.6		217.1
Impairment of assets .6		.6
Deferred income taxes (2.3)		115.3
Undistributed earnings of unconsolidated affiliates 14.9		(8.4)
(Gain) loss on sale of assets and investments (.8)		.4
Share-based compensation 10.2		7.7
Noncurrent capital lease receivables (37.7)		(30.7)
Acquisition-related costs 31.5		
Other adjustments 29.6		30.1
Working capital changes that provided (used) cash, excluding effects of acquisitions and divestitures:		
Trade receivables (11.5)		(27.0)
Inventories (10.2)		(18.1)
Contracts in progress 9.8		9.3
Other receivables 11.6		11.8
Payables and accrued liabilities (229.3)		(289.9)
Other working capital 34.0		(76.1)
Cash Provided by Operating Activities336.6		193.9
Investing Activities		
Additions to plant and equipment (306.9)		(288.8)
Acquisitions, less cash acquired —		(9.9)
Investment in and advances to unconsolidated affiliates —		(3.0)
Proceeds from sale of assets and investments 33.2		13.1
Change in restricted cash (3.1)		13.2
Cash Used for Investing Activities (276.8)		(275.4)
Financing Activities		<u> </u>
Long-term debt proceeds 38.5		53.1
Payments on long-term debt (137.6)		(26.0)
Net decrease in commercial paper and short-term borrowings (33.3)		(51.6)
Dividends paid to shareholders (104.8)		(95.1)
Proceeds from stock option exercises 36.8		27.7
Excess tax benefit from share-based compensation 8.5		8.2
Other financing activities 1.3		
Cash Used for Financing Activities (190.6)		(83.7)
Effect of Exchange Rate Changes on Cash 3.7		_
Decrease in Cash and Cash Items (127.1)		(165.2)
Cash and Cash Items – Beginning of Year 374.3		488.2
Cash and Cash Items – End of Period\$ 247.2	\$	323.0

The accompanying notes are an integral part of these statements.

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

(Millions of dollars unless otherwise indicated, except for share data)

1. BASIS OF PRESENTATION AND MAJOR ACCOUNTING POLICIES

Refer to our 2010 Form 10-K for a description of major accounting policies. There have been no material changes to these accounting policies during the first three months of 2011. Beginning in fiscal year 2011, we moved from a lattice-based option valuation model to a Black Scholes model to value stock option awards. The change in valuation models was not significant to our consolidated financial statements. Refer to Note 11, Share-Based Compensation, for further details on this change in accounting estimate.

The consolidated financial statements of Air Products and Chemicals, Inc. and its subsidiaries ("we", "our", "us", the "Company", "Air Products", or "registrant") included herein have been prepared by us, without audit, pursuant to the rules and regulations of the Securities and Exchange Commission (SEC). Certain information and footnote disclosures normally included in financial statements prepared in accordance with U.S. generally accepted accounting principles have been condensed or omitted pursuant to such rules and regulations. In our opinion, the accompanying statements reflect 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. Adjustments included herein are of a normal, recurring nature unless otherwise disclosed in the Notes. The interim results for the periods indicated herein, however, 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. The consolidated financial statements and related Notes included herein should be read in conjunction with the financial statements and Notes thereto included in our latest Form 10-K in order to fully understand the basis of presentation. Results of operations for interim periods are not necessarily indicative of the results of operations for a full year.

2. NEW ACCOUNTING GUIDANCE

Accounting Guidance Implemented

CONSOLIDATION OF VARIABLE INTEREST ENTITIES

In June 2009, the FASB issued authoritative guidance that amends previous guidance for determining whether an entity is a variable interest entity (VIE). It requires an enterprise to perform an analysis to determine whether the company's variable interests give it a controlling financial interest in a VIE. A company would be required to assess whether it has an implicit financial responsibility to ensure that a VIE operates as designed when determining whether it has the power to direct the activities of the VIE that most significantly impact the entity's economic performance. In addition, ongoing reassessments of whether an enterprise is the primary beneficiary of a VIE are required. This guidance was effective for us on 1 October 2010. The adoption of this guidance did not have a material impact on our consolidated financial statements.

MULTIPLE-DELIVERABLE REVENUE ARRANGEMENTS

In October 2009, the FASB issued authoritative guidance on multiple-deliverable revenue arrangements. This new guidance amends the existing criteria for separating consideration received in multiple-deliverable arrangements and requires that arrangement consideration be allocated at the inception of the arrangement to all deliverables based on their relative selling price. The guidance establishes a hierarchy for determining the selling price of a deliverable which is based on vendor-specific objective evidence, third-party evidence, or management estimates. Expanded disclosures related to multiple-deliverable revenue arrangements are also required. This guidance was effective for us on 1 October 2010. Upon adoption, the guidance was applied prospectively from the beginning of the fiscal year for new or materially modified arrangements. The adoption of this guidance did not have a material impact on our consolidated financial statements.

3. 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, and subject to the terms and conditions set forth in the Offer to Purchase, dated 11 February 2010, as amended. 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 be



approximately \$7.8 billion, including \$6.1 billion of equity and \$1.7 billion of assumed debt. The offer and withdrawal rights are scheduled to expire on 4 February 2011, unless further extended.

At the Airgas' Annual Meeting of Shareholders on 15 September 2010, Airgas shareholders elected three directors nominated by Air Products and also voted in favor of Air Products' three by-law amendment proposals. Following the Annual Meeting, Airgas filed suit in the Delaware Chancery Court to invalidate the by-law amendment that would move Airgas' next annual meeting to January 2011. On 8 October 2010, the Delaware Chancery Court ruled that the by-law amendment was properly adopted at the Airgas Annual Meeting on 15 September 2010 and that it is valid under Delaware law. Airgas appealed the Court's ruling and on 23 November 2010 the Delaware Supreme Court overturned the previous decision by the Delaware Chancery Court and invalidated the by-law amendment.

Further, in October 2010, the U.S. Federal Trade Commission approved the terms of a Consent Decree for the proposed acquisition of Airgas. The Consent Decree would permit us to acquire Airgas subject to the divestiture of certain assets within a period of time after the closing of the acquisition. The assets to be divested relate primarily to Airgas' liquid bulk and on-site supply of atmospheric gases, including production and related assets.

Prior to the tender offer, we purchased approximately 1.5 million shares of Airgas stock for \$69.6. This amount was recorded as an available-for-sale investment within other noncurrent assets on the consolidated balance sheet.

In connection with this tender offer, we have secured committed financing in the form of a \$6.7 billion term loan credit facility. Refer to Note 15, Debt, in our 2010 Form 10-K for additional information on this credit facility.

For the three months ended 31 December 2010, \$43.5 (\$27.2 after-tax, or \$.12 per share) in expense was recognized related to this transaction and is included within acquisition-related costs on the consolidated income statement. For the year ended 30 September 2010, \$96.0 in expense was recognized in relation to this transaction. This includes amortization of the fees related to the term loan credit facility and other acquisition-related costs. Total costs of this transaction are expected to be approximately \$150 to \$200.

4. **BUSINESS COMBINATIONS**

In the second quarter of 2010, we entered into agreements that enabled us to acquire 100% of the outstanding shares of the French SAGA group (SAGA), which consists of SAGA, SAGA Medical, and SAGA Technologies. SAGA is an independent industrial gas provider in France with packaged gases, liquid bulk, and medical businesses. The acquisition of SAGA supports the Merchant Gases segment's integration strategy by enhancing market position in southwest and central France. SAGA revenues for calendar year 2009 were approximately €25 million, or \$35.

Under the terms of these agreements, we purchased 51.47% of the shares of SAGA on 1 March 2010 for €34.5 million or \$47.2 (\$25.0 net of cash acquired of \$22.2). The remaining shares were purchased on 30 November 2010 for a fixed price of €44.8 million, or approximately \$62. At 30 September 2010, this structure was accounted for as a financing of the purchase of the remaining shares and reported within short-term borrowings on the consolidated balance sheet.

5. INVENTORIES

The components of inventories are as follows:

	December 2010	30	September 2010	
Inventories at FIFO Cost				
Finished goods	\$ 423.1	\$	405.3	
Work in process	30.9		29.3	
Raw materials and supplies	207.1		208.2	
	661.1		642.8	
Less: Excess of FIFO cost over LIFO cost	(76.6)		(71.2)	
	\$ 584.5	\$	571.6	

FIFO cost approximates replacement cost. Our inventories have a high turnover, and as a result, there is little difference between the original cost of an item and its current replacement cost.

6. GOODWILL

Changes to the carrying amount of consolidated goodwill by segment for the three months ended 31 December 2010 are as follows:

	30 September		Acquisitions and		Currency		31 E	December
		2010		Adjustments		Translation		2010
Merchant Gases	\$	595.7	\$	—	\$	(6.4)	\$	589.3
Tonnage Gases		15.5		—		(.1)		15.4
Electronics and Performance Materials		303.4		—		4.1		307.5
	\$	914.6	\$	_	\$	(2.4)	\$	912.2

Goodwill is subject to impairment testing at least annually. In addition, goodwill is tested more frequently if a change in circumstances or the occurrence of events indicates that potential impairment exists.

7. FINANCIAL INSTRUMENTS

Currency Price Risk Management

Our earnings, cash flows, and financial position are exposed to foreign currency risk from foreign currency denominated transactions and net investments in foreign operations. It is our policy to minimize the cash flow volatility to changes in currency exchange rates. This is accomplished by identifying and evaluating the risk that our cash flows will change in value due to changes in exchange rates and by determining the appropriate strategies necessary to manage such exposures. Our objective is to maintain economically balanced currency risk management strategies that provide adequate downside protection.

Forward Exchange Contracts

We enter into forward exchange contracts to reduce the cash flow exposure to foreign currency fluctuations associated with highly anticipated cash flows and certain firm commitments such as the purchase of plant and equipment. Forward exchange contracts are also used to hedge the value of investments in certain foreign subsidiaries and affiliates by creating a liability in a currency in which we have a net equity position. The primary currency pair in this portfolio of forward contracts is the Euro/U.S. Dollar.

In addition to the foreign exchange contracts that are designated as hedges, we also hedge foreign currency exposures utilizing forward exchange contracts that are not designated as hedges. These contracts are used to hedge foreign currency-denominated monetary assets and liabilities, primarily working capital. The primary objective of these forward contracts is to protect the value of foreign currency-denominated monetary assets and liabilities from the effects of volatility in foreign exchange rates that might occur prior to their receipt or settlement. This portfolio of forward exchange contracts is comprised of many different foreign currency pairs with a profile that changes from time to time depending on business activity and sourcing decisions.

The table below summarizes our outstanding currency price risk management instruments:

	31 Decen	nber 2010	30 Septer	nber 2010
		Years		Years
	US\$	Average	US\$	Average
	Notional	Maturity	Notional	Maturity
Forward exchange contracts:				
Cash flow hedges	\$1,549.6	.4	\$1,605.5	.5
Net investment hedges	628.2	2.8	648.5	3.0
Hedges not designated	402.2	.1	373.6	.2
Total Forward Exchange Contracts	\$2,580.0	1.0	\$2,627.6	1.1

In addition to the above, we use foreign currency denominated debt and qualifying intercompany loans to hedge the foreign currency exposures of our net investment in certain foreign affiliates. The designated foreign currency denominated debt at 31 December 2010 includes €729.2 million and NT\$967.0 million, and at 30 September 2010 includes €782.1 million and NT\$967.0 million. The designated intercompany loans include €437.0 million at 31 December 2010 and 30 September 2010.

Debt Portfolio Management

It is our policy to identify on a continuing basis the need for debt capital and evaluate the financial risks inherent in funding the Company with debt capital. Reflecting the result of this ongoing review, our debt portfolio and hedging program are managed with the objectives and intent to (1) reduce funding risk with respect to borrowings made by us to preserve our access to debt capital and provide debt capital as required for funding and liquidity purposes, and (2) manage the aggregate interest rate risk and the debt portfolio in accordance with certain debt management parameters.

Interest Rate Swap Contracts

We enter into interest rate swap contracts to change the fixed/variable interest rate mix of our debt portfolio in order to maintain the percentage of fixed- and variable-rate debt within the parameters set by management. In accordance with these parameters, the agreements are used to optimize interest rate risks and costs inherent in our debt portfolio. The current interest rate swap portfolio consists of fixed to floating swaps denominated in U.S. dollars and in Euros. In addition, we use interest rate swap agreements to hedge the interest rate on anticipated fixed-rate debt issuance. The notional amount of the interest rate swap agreements are equal to or less than the designated debt instrument being hedged. When interest rate swaps are used, the indices of the swap instruments and the debt to which they are designated are the same. It is our policy not to enter into any interest rate swap contracts which lever a move in interest rates on a greater than one-to-one basis.

Cross Currency Interest Rate Swap Contracts

We enter into cross currency interest rate swap contracts when risk management deems necessary. These contracts may entail both the exchange of fixed- and floating-rate interest payments periodically over the life of the agreement and the exchange of one currency for another currency at inception and at a specified future date. These contracts effectively convert the currency denomination of a debt instrument into another currency in which we have a net equity position while changing the interest rate characteristics of the instrument. The contracts are used to hedge long-term intercompany and third-party borrowing transactions and certain net investments in foreign operations. The current cross currency swap portfolio consists of a single fixed to fixed swap between U.S. dollars and British Pound Sterling.

The following table summarizes our outstanding interest rate swaps and cross currency interest rate swaps:

		31 Decen	nber 2010		30 September 2010			
			Average	Years			Average	Years
	US\$		Receive	Average	US\$		Receive	Average
	Notional	Pay %	%	Maturity	Notional	Pay %	%	Maturity
Interest rate swaps (fair value hedge)	\$ 514.8	LIBOR	3.46%	4.3	\$ 617.0	LIBOR	3.66%	3.8
Cross currency interest rate swaps								
(net investment hedge)	\$ 32.2	5.54%	5.48%	3.2	\$ 32.2	5.54%	5.48%	3.5

The table below summarizes the fair value and balance sheet location of our outstanding derivatives:

Derivatives Designated as Hedging	Balance Sheet Location	 ecember 2010 air Value	 eptember 2010 Fair Value	Balance Sheet Location	2	ecember 2010 air Value	 eptember 2010 air Value
Instruments:							
Foreign exchange contracts	Other receivables	\$ 22.3	\$ 29.8	Accrued liabilities	\$	24.0	\$ 22.3
Interest rate swap contracts	Other receivables	8.1	6.6	Accrued liabilities		.7	1.3
Foreign exchange contracts	Other noncurrent assets	40.3	38.7	Other noncurrent liabilities		15.5	19.9
Interest rate swap contracts	Other noncurrent assets	17.9	33.1	Other noncurrent liabilities		2.1	2.4
Total Derivatives Designated as							
Hedging Instruments		\$ 88.6	\$ 108.2		\$	42.3	\$ 45.9
Derivatives Not Designated as							
Hedging Instruments:							
Foreign exchange contracts	Other			Accrued			
	receivables	\$ 5.0	\$ 6.2	liabilities	\$	6.1	\$ 8.3
Total Derivatives		\$ 93.6	\$ 114.4		\$	48.4	\$ 54.2

Refer to Note 8, Fair Value Measurements, which defines fair value, describes the method for measuring fair value, provides additional disclosures regarding fair value measurements, and discusses our counterparty risk.

The table below summarizes the gain or loss related to our cash flow, net investment, and non-designated hedges. The amounts of gain or loss associated with the outstanding fair value hedges are not material.

	Three Months Ended 31 December									
-	Forward				Foreign (Currency				
	E	Exchang	e Cont	tracts	Debt		Other (A)		То	tal
		2010		2009	2010	2009	2010	2009	2010	2009
Cash Flow Hedges:										
Net (gain) loss recognized in OCI										
(effective portion)	\$	6.2	\$	2.2	\$ —	\$ —	\$—	\$.2	\$ 6.2	\$ 2.4
Net gain (loss) reclassified from OCI to sales/cost of sales										
(effective portion)		.5		(2.8)		_		1.8	.5	(1.0)
Net gain (loss) reclassified from OCI to other (income)										
expense										
(effective portion)		(7.3)		(1.5)	_	_	_		(7.3)	(1.5)
Net gain (loss) reclassified from OCI to other (income)										
expense										
(ineffective portion)		(.2)			_	_			(.2)	_
Net Investment Hedges:										
Net (gain) loss recognized in OCI	\$	(4.0)	\$	(8.6)	\$(17.1)	\$(31.8)	\$ (.2)	\$.3	\$(21.3)	\$(40.1)
Derivatives Not Designated as Hedging Instruments:										
Net (gain) loss recognized in other (income) expense ^(B)	\$	(.2)	\$	1.0	\$ —	\$ —	\$—	\$—	\$ (.2)	\$ 1.0

Other includes the impact on other comprehensive income (OCI) and earnings related to commodity swap contracts and interest rate swaps.
 (B) The impact of the new designated before most of the second base of the seco

¹ The impact of the non-designated hedges noted above was largely offset by gains and losses, respectively, resulting from the impact of changes in exchange rates on recognized assets and liabilities denominated in nonfunctional currencies.

Credit Risk-Related Contingent Features

Certain derivative instruments are executed under agreements that require us to maintain a minimum credit rating with both Standard & Poor's and Moody's. If our credit rating falls below this threshold, the counterparty to the derivative instruments has the right to request full collateralization on the derivatives' net liability position. The net liability position of derivatives with credit risk-related contingent features was \$4.9 as of 31 December 2010 and \$4.2 as of 30 September 2010. Because our current credit rating is above the various pre-established thresholds, no collateral has been posted on these liability positions.

Counterparty Credit Risk Management

We execute all derivative transactions with counterparties that are highly rated financial institutions all of which are investment grade at this time. Some of our underlying derivative agreements give us the right to require the institution to post collateral if its credit rating falls below the pre-established thresholds with Standard & Poor's or Moody's. These are the same agreements referenced in Credit Risk-Related Contingent Features above. The collateral that the counterparties would be required to post was \$44.8 as of 31 December 2010 and \$52.2 as of 30 September 2010. No financial institution is required to post collateral at this time, as all have credit ratings at or above the threshold.

8. FAIR VALUE MEASUREMENTS

Fair value is defined as an exit price (i.e., the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date). The methods and assumptions used to measure the fair value of financial instruments are as follows:

Derivatives

The fair value of our interest rate swap agreements and foreign exchange contracts are quantified using the income approach and are based on estimates using standard pricing models. These models take into account the value of future cash flows as of the balance sheet date, discounted to a present value using discount factors that match both the time to maturity and currency of the underlying instruments. The computation of the fair values of these instruments is generally performed by the Company. These standard pricing models utilize inputs which are derived from or corroborated by observable market data such as interest rate yield curves and currency spot and forward rates. In addition, on an ongoing basis, we randomly test a subset of its valuations against valuations received from the transaction's counterparty to validate the accuracy of its standard pricing models. The fair value of commodity swaps is based on current market price as provided by the financial institutions with which the commodity swaps have been executed. Counterparties to these derivative contracts are highly rated financial institutions.

Refer to Note 7, Financial Instruments, for a description of derivative instruments, including details on the balance sheet line item classifications.

Available-for-Sale Securities

The fair value of available-for-sale securities is based on a market approach, specifically quoted market prices in publicly traded companies from the New York Stock Exchange and NASDAQ. These investments are reported within other noncurrent assets on the consolidated balance sheet, with holding gains and losses recorded to other comprehensive income, net of tax, within total equity.

Long-term Debt

The fair value of our debt is based on estimates using standard pricing models that take into account the value of future cash flows as of the balance sheet date, discounted to a present value using discount factors that match both the time to maturity and currency of the underlying instruments. These standard valuation models utilize observable market data such as interest rate yield curves and currency spot rates. The computation of the fair value of these instruments is generally performed by the Company.

The carrying values and fair values of financial instruments were as follows:

	31 December 2010					30 September 2010			
_	Carry	ying Value	Fair Value		Carry	Carrying Value		r Value	
Assets									
Derivatives									
Foreign exchange contracts	\$	67.6	\$	67.6	\$	74.7	\$	74.7	
Interest rate swap contracts		26.0		26.0		39.7		39.7	
Available-for-sale securities									
Airgas investment		94.2		94.2		102.5		102.5	
Other investments		—				1.1		1.1	
Liabilities									
Derivatives									
Foreign exchange contracts	\$	45.6	\$	45.6	\$	50.5	\$	50.5	
Interest rate swap contracts		2.8		2.8		3.7		3.7	
Long-term debt, including current portion		3,671.0	3	8,908.5		3,842.3		4,146.4	

The carrying amounts reported in the balance sheet for cash and cash items, trade receivables, payables and accrued liabilities, accrued income taxes, and short-term borrowings approximate fair value due to the short-term nature of these instruments. Accordingly, these items have been excluded from the above table.

The fair value hierarchy prioritizes the inputs to valuation techniques used to measure fair value into three broad levels as follows:

Level 1 — Quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2 — Inputs that are observable for the asset or liability, either directly or indirectly through market corroboration, for substantially the full term of the asset or liability.

Level 3 — Inputs that are unobservable for the asset or liability based on our own assumptions (about the assumptions market participants would use in pricing the asset or liability).

The following table summarizes assets and liabilities measured at fair value on a recurring basis in the consolidated balance sheets:

	31 December 2010				30 September 2010			
	Total	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3
Assets at Fair Value								
Derivatives								
Foreign exchange contracts	\$ 67.6	\$ —	\$ 67.6	\$ —	\$ 74.7	\$ —	\$ 74.7	\$ —
Interest rate swap contracts	26.0	_	26.0		39.7	—	39.7	_
Available-for-sale securities								
Airgas investment	94.2	94.2	—	—	102.5	102.5	—	
Other investments	—	—	—		1.1	1.1	—	
Total Assets at Fair Value	\$187.8	\$ 94.2	\$ 93.6	\$ —	\$218.0	\$ 103.6	\$ 114.4	\$ —
Liabilities at Fair Value								
Derivatives								
Foreign exchange contracts	\$ 45.6	\$ —	\$ 45.6	\$ —	\$ 50.5	\$ —	\$ 50.5	\$ —
Interest rate swap contracts	2.8		2.8		3.7	_	3.7	
Total Liabilities at Fair Value	\$ 48.4	\$ —	\$ 48.4	\$ —	\$ 54.2	\$ —	\$ 54.2	\$ -

Refer to Note 1, Major Accounting Policies, in our 2010 Form 10-K and Note 7, Financial Instruments, in this quarterly filing for additional information on our accounting and reporting of the fair value of financial instruments.

9. RETIREMENT BENEFITS

The components of net pension cost for the defined benefit pension plans and other postretirement benefit cost for the three months ended 31 December 2010 and 2009 were as follows:

	Pension Benefits						Other Benef		
		2010			2009		2010	2009	
Three Months Ended 31 December	U.S.	Inter	mational	U.S.	Inter	national			
Service cost	\$ 10.9	\$	7.2	\$ 10.6	\$	6.2	\$ 1.4	\$ 1.2	
Interest cost	30.8		15.7	30.9		15.9	.8	1.1	
Expected return on plan assets	(44.9)		(16.6)	(41.1)		(16.8)	_		
Prior service cost amortization	.6		.2	.7		.2	_	_	
Actuarial loss amortization	16.0		7.4	11.7		5.1	1.0	.7	
Settlement and curtailment charges			_			.5	_	_	
Special termination benefits			_			3.5	_		
Other			.4			.8	_	_	
Net periodic benefit cost	\$ 13.4	\$	14.3	\$ 12.8	\$	15.4	\$ 3.2	\$ 3.0	

For the three months ended 31 December 2010 and 2009, our cash contributions to funded plans and benefit payments under unfunded plans were \$208.7 and \$255.7, respectively. Total contributions for fiscal 2011 are expected to be approximately \$247. During fiscal 2010, total contributions were \$406.6.

10. COMMITMENTS AND CONTINGENCIES

Litigation

We are involved in various legal proceedings, including competition, environmental, health, safety, product liability, and insurance matters. In September 2010, the Brazilian Administrative Council for Economic Defense (CADE) issued a decision against our Brazilian subsidiary, Air Products Brasil Ltda., and several other Brazilian industrial gas companies for alleged anticompetitive activities. CADE imposed a civil fine of R\$179.2 million (approximately \$108 at 31 December 2010) on Air Products Brasil Ltda. This fine was based on a recommendation by a unit of the Brazilian Ministry of Justice whose investigation began in 2003 alleging violation of competition laws with respect to the sale of industrial and medical gases. The fines are based on a percentage of our total revenue in Brazil in 2003.

We have denied the allegations made by the authorities and filed an appeal in October 2010 to the Brazilian courts. Certain of our defenses, if successful, could result in the matter being dismissed with no fine against us. We, with advice of our outside legal counsel, have assessed the status of this matter and have concluded that although an adverse final judgment after exhausting all appeals is reasonably possible, such a judgment is not probable. As a result, no provision has been made in the consolidated financial statements. We estimate the maximum possible loss to be the full amount of the fine of R\$179.2 million (approximately \$108 at 31 December 2010) plus interest accrued thereon until final disposition of the proceedings.

We are required to provide security for the payment of the fine (and interest) in order to suspend execution of the judgment during the appeal process, during which time interest will accrue on the fine. The security is only collectible by the court in the event we are not successful in our appeal and do not timely pay the fine. The security could be in the form of a bank guarantee or in other forms which the courts deem acceptable. We have proposed a security interest in certain assets. Our security was accepted by a lower court, but that decision is on appeal.

While we do not expect that any sums we may have to pay in connection with this or any other legal proceeding would have a materially adverse effect on our consolidated financial position or net cash flows, a future charge for regulatory fines or damage awards could have a significant impact on our net income in the period in which it is recorded.

Environmental

Accruals for environmental loss contingencies are recorded when it is probable that a liability has been incurred and the amount of loss can be reasonably estimated. The consolidated balance sheets at 31 December 2010 and 30 September 2010 included an accrual of \$86.0 and \$87.0, respectively, primarily as part of other noncurrent liabilities. The environmental liabilities will be paid over a period of up to 30 years. We estimate the exposure for environmental loss contingencies to range from \$86 to a reasonably possible upper exposure of \$100 as of 31 December 2010.

Refer to Note 17, Commitments and Contingencies, to the consolidated financial statements in our 2010 Form 10-K for information on our environmental accruals related to the Pace, Florida, Piedmont, S.C., and Paulsboro, N.J. facilities. At 31 December 2010, the accrual balances associated with the Pace, Florida, Piedmont, S.C., and Paulsboro, N.J. facilities totaled \$36.0, \$21.4, and \$13.8, respectively.

11. SHARE-BASED COMPENSATION

We have various share-based compensation programs, which include stock options, deferred stock units, and restricted shares. During the three months ended 31 December 2010, we granted 932,026 stock options at a weighted-average exercise price of \$86.39 and an estimated fair value of \$23.83 per option. The fair value of these options was estimated using a Black Scholes option valuation model that used the following assumptions: expected volatility of 29.2%-30.0%; expected dividend yield of 2.2%; expected life in years of 7.0-8.7; and a risk-free interest rate of 2.4%-2.9%. Fair values of stock options granted prior to October 1, 2010 were estimated using a lattice-based option valuation model. Beginning in fiscal 2011, we used the Black Scholes model to value stock option awards. The Black Scholes model is a widely used valuation technique that incorporates all the measurement objectives required by the share based compensation accounting guidance. Additionally, the Black Scholes model incorporates assumptions that reflect all substantive characteristics of our program. We believe the Black Scholes model improves comparability and efficiency. The impact of the change in valuation models was not significant to the consolidated financial statements. In addition, we granted 233,814 deferred stock units at a weighted-average grant-date fair value of \$86.32 and 31,825 restricted shares at a weighted-average grant-date fair value of \$86.39. Refer to Note 19, Share-Based Compensation, in our 2010 Form 10-K for information on the valuation and accounting for these programs.

Share-based compensation cost charged against income in the three months ended 31 December 2010 was \$10.2 (\$6.3 after-tax). Of the share-based compensation cost recognized, \$7.6 was a component of selling and administrative expense, \$2.1 a component of cost of sales, and \$.5 a component of research and development. Share-based compensation cost charged against income in the three months ended 31 December 2009 was \$7.7 (\$4.8 after-tax). The amount of share-based compensation cost capitalized in 2011 and 2010 was not material.

12. EQUITY

The following is a summary of the changes in total equity for the three months ended 31 December:

	Three Months Ended 31 December								
	2010					20	09		
]	Non-						
	Air	COL	ntrolling	Total	Air	contro	olling	Total	
	Products	In	terests	Equity	Products	Inter	rests	Equity	
Balance at 30 September	\$5,546.9	\$	150.7	\$5,697.6	\$4,791.9	\$	138.1	\$4,930.0	
Net Income	268.6		7.3	275.9	251.8		5.0	256.8	
Components of Other Comprehensive Income, net of tax:									
Translation adjustments	40.1		7.9	48.0	34.2		.7	34.9	
Net gain (loss) on derivatives	(6.1)		(.1)	(6.2)	(2.4)		—	(2.4)	
Unrealized holding gain (loss) on available-for-sale securities	(5.2)		_	(5.2)	.1		—	.1	
Reclassification adjustments:									
Derivatives	7.0		—	7.0	2.5		—	2.5	
Available-for-sale securities	(.2)		—	(.2)	—		—	—	
Pension and postretirement benefits	16.5		—	16.5	12.2		.2	12.4	
Total Other Comprehensive Income	52.1		7.8	59.9	46.6		.9	47.5	
Comprehensive Income	320.7		15.1	335.8	298.4		5.9	304.3	
Dividends on common stock (per share \$.49, \$.45)	(105.3)		—	(105.3)	(95.5)		—	(95.5)	
Dividends to noncontrolling interests			_		_		(.2)	(.2)	
Share-based compensation expense	10.2		—	10.2	7.7		—	7.7	
Issuance of treasury shares for stock option and award plans	31.6		_	31.6	20.6		_	20.6	
Tax benefits of stock option and award plans	13.3		—	13.3	11.9		—	11.9	
Purchase of noncontrolling interests	(6.1)		_	(6.1)	—		_	—	
Contribution from noncontrolling interests	—		1.4	1.4	—		6.5	6.5	
Other equity transactions	(1.3)			(1.3)	(1.1)		(.1)	(1.2)	
Balance at 31 December	\$5,810.0	\$	167.2	\$5,977.2	\$5,033.9	\$	150.2	\$5,184.1	

13. EARNINGS PER SHARE

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

		onths Ended ecember
	2010	2009
NUMERATOR		
Net Income Attributable to Air Products (used in basic and diluted EPS)	\$268.6	\$251.8
DENOMINATOR (in millions)		
Weighted average number of common shares used in basic EPS	214.2	211.7
Effect of dilutive securities		
Employee stock options	4.1	4.4
Other award plans	.9	.9
	5.0	5.3
Weighted average number of common shares and dilutive potential common shares used in diluted EPS	219.2	217.0
BASIC EPS ATTRIBUTABLE TO AIR PRODUCTS	\$ 1.25	\$ 1.19
DILUTED EPS ATTRIBUTABLE TO AIR PRODUCTS	\$ 1.23	\$ 1.16

Options on 2.1 million and 2.2 million shares were antidilutive and therefore excluded from the computation of diluted earnings per share for the three months ended 31 December 2010 and 2009, respectively.

14. NONCONTROLLING INTEREST

In June 2010, we entered into agreements obligating us to purchase 25% of the remaining shares of CryoService Limited (CSL), a cryogenic and specialty gases company in the U.K., which increased our ownership interest from 72% to 97%. The agreements require the consideration, which is based on a multiple of earnings formula, to be remitted in January 2012. The share sale agreements effectively terminate the option agreements. The carrying value of the 25% noncontrolling interest at the time the sale share agreements were entered into was \$10.8. As a result of this arrangement, the Company reduced the noncontrolling interest for the 25% purchase obligation and recorded an estimated liability based on the earnings formula. As the purchase of the noncontrolling interest does not result in a change of control, the difference between the carrying value of the 25% noncontrolling interest and the liability recognized was recorded as a reduction in capital in excess of par value.

In the first quarter of 2011, we revised our initial estimate of the liability and recorded an adjustment of \$6.1 to the liability and capital in excess of par. At 31 December 2010, the liability amounted to \$48.6 and has been reported in other noncurrent liabilities on the consolidated balance sheet.

The following table presents the effect of changes in ownership interests in subsidiaries on Air Products shareholder's equity:

	Three Mon 31 Dece	
	2010	2009
Net Income Attributable to Air Products	\$268.6	\$251.8
Transfers to noncontrolling interests:		
Decrease in Air Products capital in excess of par value for purchase of noncontrolling interests	(6.1)	—
Changes from net income attributable to Air Products and transfers to noncontrolling interests	\$262.5	\$251.8

15. BUSINESS SEGMENT AND GEOGRAPHIC INFORMATION

Our segments are organized based on differences in product and/or type of customer. We have four business segments consisting of Merchant Gases, Tonnage Gases, Electronics and Performance Materials, and Equipment and Energy.

Business Segment Information

		nths Ended cember
	2010	2009
Revenues from External Customers		
Merchant Gases	\$ 987.8	\$ 933.6
Tonnage Gases	766.0	697.9
Electronics and Performance Materials	526.0	433.4
Equipment and Energy	111.9	108.6
Segment and Consolidated Totals	\$ 2,391.7	\$ 2,173.5
Operating Income		
Merchant Gases	\$ 200.5	\$ 189.6
Tonnage Gases	115.6	100.2
Electronics and Performance Materials	68.9	48.4
Equipment and Energy	20.2	7.8
Segment Total	\$ 405.2	\$ 346.0
Acquisition-related costs	(43.5)	—
Other	(1.1)	(1.0)
Consolidated Total	\$ 360.6	\$ 345.0
	31 December	30 September
	2010	2010
Identifiable Assets (A)		
Merchant Gases	\$ 5,061.9	\$ 5,075.3
Tonnage Gases	3,999.7	3,876.4
Electronics and Performance Materials	2,312.9	2,275.8
Equipment and Energy	333.2	341.3

Segment Total

Other

Consolidated Total

^(A) Identifiable assets are equal to total assets less investments in and advances to equity affiliates.

Geographic Information

		Months Ended 1 December
	2010	2009
Revenues from External Customers		
North America	\$ 1,125.9	\$ 1,027.9
Europe	729.2	724.3
Asia	481.8	371.5
Latin America/Other	54.8	49.8
Total	\$ 2,391.7	\$ 2,173.5

\$11,707.7

\$12,547.7

840.0

\$11,568.8

\$12,593.1

1,024.3

Geographic information is based on country of origin. The Europe segment operates principally in Belgium, France, Germany, the Netherlands, Poland, the U.K. and Spain. The Asia segment operates principally in China, Korea, and Taiwan.



Item 2.Management's Discussion and Analysis of Financial Condition and Results of Operations

(Millions of dollars, except for share data)

The disclosures in this quarterly report are complementary to those made in our 2010 Form 10-K. An analysis of results for the first quarter of 2011 is provided in the Management's Discussion and Analysis to follow.

All comparisons in the discussion are to the corresponding prior year unless otherwise stated. All amounts presented are in accordance with U.S. generally accepted accounting principles (GAAP), except as noted. All amounts are presented in millions of dollars, except for share data, unless otherwise indicated.

Captions such as net income attributable to Air Products and diluted earnings per share attributable to Air Products are simply referred to as "net income" and "diluted earnings per share" throughout this Management's Discussion and Analysis, unless otherwise stated.

The discussion of first quarter results that follows includes comparisons to non-GAAP financial measures. These non-GAAP measures exclude acquisitionrelated costs in 2011. The presentation of non-GAAP measures is intended to enhance the usefulness of financial information by providing measures that our management uses internally to evaluate our baseline performance on a comparable basis. The reconciliation of reported GAAP results to non-GAAP measures is presented on page 23.

FIRST QUARTER 2011 VS. FIRST QUARTER 2010

FIRST QUARTER 2011 IN SUMMARY

- Sales of \$2,391.7 increased 10%, or \$218.2. Underlying sales increased 11%, primarily due to volume growth in our Electronics and Performance Materials, Tonnage Gases and Merchant Gases segments.
- Operating income of \$360.6 increased 5%, or \$15.6 and operating margin of 15.1% decreased 80 basis points (bp). On a non-GAAP basis, operating income of \$404.1 increased 17%, or \$59.1 and operating margin of 16.9% increased 100 bp, primarily from higher volumes.
- Net income of \$268.6 increased 7%, or \$16.8, and diluted earnings per share of \$1.23 increased 6%, or \$.07. On a non-GAAP basis, net income of \$295.8 increased 17%, or \$44.0, and diluted earnings per share of \$1.35 increased 16%, or \$.19. A summary table of changes in diluted earnings per share is presented below.

Changes in Diluted Earnings per Share Attributable to Air Products

	Three Months Ended 31 December				Increase		
		2010		2009		crease)	
Diluted Earnings per Share	\$	1.23	\$	1.16	\$.07	
Acquisition-related costs		.12		—		.12	
Diluted Earnings per Share – Non-GAAP Basis	\$	1.35	\$	1.16	\$.19	
Operating Income (after-tax)							
Underlying business							
Volume					\$.25	
Price/raw materials							
Costs						(.02)	
Currency						(.02)	
Operating Income						.21	
Other (after-tax)							
Equity affiliates' income						_	
Interest expense						—	
Income tax rate						_	
Noncontrolling interest						(.01)	
Average shares outstanding						(.01)	
Other						(.02)	
Total Change in Diluted Earnings per Share – Non-GAAP Basis					\$.19	

RESULTS OF OPERATIONS

Discussion of Consolidated Results

	Three Months Ended 31 December					
	2010	2009	\$ Change	Change		
Sales	\$2,391.7	\$2,173.5	\$ 218.2	10%		
Operating income – GAAP Basis	360.6	345.0	15.6	5%		
Operating income – Non-GAAP Basis	404.1	345.0*	59.1	17%		
Operating margin – GAAP Basis	15.1%	15.9%		(80bp)		
Operating margin – Non-GAAP Basis	16.9%	15.9%*		100bp		
Equity affiliates' income	27.8	26.9	.9	3%		

* GAAP measure without non-GAAP adjustment

Sales

	% Change from Prior Year
Underlying business	
Volume	10%
Price	1%
Currency	(1)%
Total Consolidated Sales Change	10%

Underlying business increased sales 11%, primarily due to higher volumes in our Electronics and Performance Materials, Tonnage Gases, and Merchant Gases segments and higher pricing of 1%. Unfavorable currency translation decreased sales by 1%.

Operating Income and Margin – Non-GAAP Basis

Underlying business increased \$65 primarily from higher volumes in the Electronics and Performance Materials, Tonnage, and Merchant Gases segments and increased pricing, partially offset by higher costs. Unfavorable currency translation and foreign exchange impacts decreased operating income by \$6.

Equity Affiliates' Income

Income from equity affiliates of \$27.8 increased \$.9. Higher equity affiliate income in the Merchant Gases segment was principally offset by a charge for the anticipated sale of a plant in one of our affiliates in Asia.

Selling and Administrative Expense (S&A)

S&A expense of \$244.6 increased \$.5. S&A as a percent of sales decreased to 10.2% from 11.2%.

Research and Development (R&D)

R&D expense of \$29.2 increased 7%, or \$2.0, primarily due to increased spending in the Energy business. R&D, as a percent of sales, decreased to 1.2% from 1.3%.

Acquisition-Related Costs

For the first quarter of 2011, \$43.5 (\$27.2 after-tax, or \$.12 per share) in expense was recognized related to the Airgas transaction and is included within acquisition-related costs on the consolidated income statement. Total costs of this transaction are expected to be approximately \$150 to \$200 of which \$96.0 were recognized in fiscal year 2010. Refer to Note 3, Airgas Transaction, to the consolidated financial statements for details of these costs.

Other Income, Net

Items recorded to other income arise from transactions and events not directly related to our principal income earning activities.

Other income of \$6.7 decreased \$4.7, primarily because insurance proceeds were received in the prior year in final settlement of a claim related to a fire at a production facility in 2008. Otherwise, no individual items were significant in comparison to the prior year.

Interest Expense

	Three Months Ended 31 December		
	2010		2009
Interest incurred	\$ 34.7	\$	36.4
Less: capitalized interest	3.7		4.8
Interest expense	\$ 31.0	\$	31.6

Interest incurred decreased \$1.7. The decrease was driven by a lower average debt balance and the impact of a stronger dollar on the translation of foreign currency interest, partially offset by higher average interest rates on variable rate debt. The change in capitalized interest is driven by a decrease in project spending which qualified for capitalization.

Effective Tax Rate

The effective tax rate equals the income tax provision divided by income before taxes. On a GAAP basis, the effective tax rate was 22.8% and 24.5% in the first quarter of 2011 and 2010, respectively. On a non-GAAP basis, the effective tax rate was 24.4% and 24.5% in the first quarter of 2011 and 2010, respectively.

Net Income

Net income was \$268.6 compared to \$251.8 and diluted earnings per share was \$1.23 compared to \$1.16. On a non-GAAP basis, net income was \$295.8 compared to \$251.8 and diluted earnings per share was \$1.35 compared to \$1.16. A summary table of changes in earnings per share is presented on page 19.



Segment Analysis

Merchant Gases

	Three M Ended 31 D			
	2010 2009 \$ Chang			Change
Sales	\$ 987.8	\$ 933.6	\$ 54.2	6%
Operating income	200.5	189.6	10.9	6%
Operating margin	20.3%	20.3%	—	
Equity affiliates' income	28.8	21.3	7.5	35%

Merchant Gases Sales

	% Change from Prior Year
Underlying business	
Volume	7%
Price	1%
Currency	(2)%
Total Merchant Gases Sales Change	6%

Underlying sales increased 8% primarily due to higher volumes of 7% and higher pricing of 1%. Volumes increased driven by very strong growth in Asia and improvement in our North American and European liquid bulk businesses. Currency had an unfavorable impact of 2% on sales.

In North America, sales increased 6%, with volumes up 3% and price up 3%. The increase in volumes was primarily driven by growth in liquid oxygen, liquid nitrogen and liquid argon. Pricing increased across all product lines, partially offset by unfavorable customer mix. In Europe, sales decreased 4%, primarily due to unfavorable currency impacts of 6%. Underlying sales increased 2% due to increased volumes of 3%, partially offset by lower pricing of 1%. The volume increase was primarily due to stronger liquid/bulk growth and modest package gas improvement, partially offset by lower healthcare volumes. In Asia, sales increased 35%, with volumes up 25%, pricing up 5% and a favorable currency impact of 5%. Volumes were up due to strength across all products.

Merchant Gases Operating Income and Margin

Operating income increased primarily due to higher volumes of \$19 and improved pricing of \$12, partially offset by higher distribution, maintenance, and power costs of \$15 and unfavorable currency of \$5. Operating margin remained consistent with the prior year.

Merchant Gases Equity Affiliates' Income

Merchant Gases equity affiliates' income increased as a result of higher volumes and an unfavorable adjustment in the prior year.

Tonnage Gases

	Three Mo Ended 31 De			
	2010 2009 \$ Chan			inge Change
Sales	\$ 766.0	\$ 697.9	\$ 6	68.1 10%
Operating income	115.6	100.2	\$ 1	15.4 15%
Operating margin	15.1%	14.4%		— 70bp

Tonnage Gases Sales

	% Change from
	Prior Year
Underlying business	
Volume	12%
Currency	(1)%
Energy and raw material cost pass-through	(1)%
Total Tonnage Gases Sales Change	10%

Sales increased primarily due to higher volumes of 12% resulting from the loading of existing assets and new plant onstreams in the prior year, partially offset by unfavorable currency of 1%. Lower natural gas prices resulted in lower energy and raw material contractual cost pass-through to customers, decreasing sales by 1%.

Tonnage Gases Operating Income

Operating income increased primarily from lower costs of \$9 and higher volumes from new plant start-ups of \$6. The decrease in costs was due to reduced maintenance costs and improved plant efficiency. Operating margin increased due to lower costs and lower natural gas cost pass-through to customers.

Electronics and Performance Materials

	Three M	onths		
	Ended 31 D	Ended 31 December		
	2010	2009	\$ Change	Change
Sales	\$526.0	\$433.4	\$92.6	21%
Operating income	68.9	48.4	20.5	42%
Operating margin	13.1%	11.2%		190bp

Electronics and Performance Materials Sales

	% Change from Prior Year
Underlying business	
Volume	21%
Price	— %
Currency	— %
Total Electronics and Performance Materials Sales Change	21%

Sales increased due to higher volumes. Electronics sales increased 30%, reflecting increased volumes in tonnage, specialty materials, and the equipment business. Performance Materials sales increased 11% due to volume growth across all end markets globally.

Electronics and Performance Materials Operating Income

Operating income increased, primarily from improved volumes of \$27 and lower costs of \$4 from benefits of prior year restructuring actions, partially offset by higher raw material costs of \$9. Operating margin improved due to higher volumes and lower costs.

Equipment and Energy

		Three Months Ended 31 December		
	2010	2009	\$ Change	% Change
Sales	\$111.9	\$108.6	\$3.3	3%
Operating income	20.2	7.8	12.4	N/M

Equipment and Energy Sales and Operating Income

Sales and operating income increased due to increased LNG project activity.

The sales backlog for the Equipment business at 31 December 2010 was \$209, compared to \$274 at 30 September 2010.

Other

Other operating income (loss) includes other expense and income that cannot be directly associated with the business segments, including foreign exchange gains and losses and interest income. Also included are LIFO inventory adjustments, as the business segments use FIFO and the LIFO pool adjustments are not allocated to the business segments. Corporate general and administrative costs and research and development costs are fully allocated to the business segments.

Other operating loss was \$(1.1) compared to \$(1.0). No individual items were significant in comparison to the prior year.

RECONCILIATION OF NON-GAAP FINANCIAL MEASURES

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

	Ор	erating	Operating	Net	Di	luted
	Iı	icome	Margin (b)	Income	F	EPS
2011 GAAP	\$	360.6	15.1%	\$ 268.6	\$	1.23
2010 GAAP		345.0	15.9%	251.8		1.16
Change GAAP	\$	15.6	(80bp)	\$ 16.8	\$.07
% Change GAAP		5%		7%		6%
2011 GAAP	\$	360.6	15.1%	\$ 268.6	\$	1.23
Acquisition-related costs						
(tax impact \$16.3) (a)		43.5	1.8%	27.2		.12
2011 Non-GAAP Measure	\$	404.1	16.9%	\$ 295.8	\$	1.35
Change Nen CAAD Measure	¢	59.1	100bp	\$ 44.0	\$.19
Change Non-GAAP Measure	\$		100bp	• •	Э	
% Change Non-GAAP Measure		17%		17%		16%

	Effective	Tax Rate
	2011	2010
Income Tax Provision — GAAP	\$ 81.5	\$ 83.5
Income before taxes — GAAP	\$ 357.4	\$ 340.3
Effective Tax Rate — GAAP	22.8%	24.5%
Income Tax Provision — GAAP	\$ 81.5	\$ 83.5
Acquisition-related costs tax impact	16.3	
Income Tax Provision — Non-GAAP Measure	\$ 97.8	\$ 83.5
Income before taxes — GAAP	\$ 357.4	\$ 340.3
Acquisition-related costs	43.5	—
Income before taxes — Non-GAAP Measure	\$ 400.9	\$ 340.3
Effective Tax Rate — Non-GAAP Measure	24.4%	24.5%
(a)		

Based on statutory tax rate of 37.4%

(b) Operating Margin is calculated by dividing operating income by sales.

PENSION BENEFITS

Refer to Note 9, Retirement Benefits, to the consolidated financial statements for details on pension cost and cash contributions. For additional information on our pension benefits and associated accounting policies, refer to the Pension Benefits section of Management's Discussion and Analysis and Note 16, Retirement Benefits, to the consolidated financial statements in our 2010 Form 10-K.

LIQUIDITY AND CAPITAL RESOURCES

We have maintained a strong financial position through the first three months of 2011. We continue to have consistent access to commercial paper markets and cash flow from operations and financing activities are expected to meet liquidity needs for the foreseeable future.

The narrative below refers to the consolidated statements of cash flows included on page 6.

Operating Activities

Net cash provided by operating activities increased \$142.7, or 74%. The increase resulted from higher net income of \$16.8 combined with the favorable impact of changes in working capital of \$194.4, partially offset by unfavorable noncash adjustments to income of \$68.5.

Noncash adjustments include depreciation and amortization, impairment charges, deferred income taxes, and share-based compensation cost. Adjustments impacting operating activities also include changes in operating assets, such as noncurrent capital lease receivables, and liabilities which reflect timing differences between the receipt or disbursement of cash and their recognition in earnings.

— Net income in the current year included a noncash expense for acquisition-related costs of \$31.5. Net income in 2010 included a noncash expense for deferred income taxes of \$115.3 relating primarily to the payment of pension contributions and utilization of tax benefit carry-forwards.

Changes in working capital decreased cash used (positive cash flow variance) by \$194.4 and included:

- A \$110.1 positive cash flow variance in other working capital accounts due to higher accrued income taxes, as the prior year included the benefit of
 pension plan contributions and the utilization of tax benefit carry-forwards.
- A \$60.6 positive cash flow variance from payables and accrued liabilities resulting primarily from lower pension contributions.

Investing Activities

Cash used for investing activities increased \$1.4 and included:

- Proceeds from the sale of assets and investments increased \$20.1.
- Changes in restricted cash, due to lower project spending, resulted in a reduced source of cash of \$16.3. The proceeds from the issuance of certain Industrial Revenue Bonds must be held in escrow until related project spending occurs and are classified as noncurrent assets in the balance sheet.

Capital expenditures are detailed in the table below:

	Three Months Ended 31 December		
	2010		2009
Additions to plant and equipment	\$ 306.9	\$	288.8
Acquisitions, less cash acquired	—		9.9
Investment in and advances to unconsolidated affiliates	—		3.0
Capital expenditures on a GAAP basis	\$ 306.9	\$	301.7
Capital lease expenditures (A)	62.1		43.5
Capital expenditures on a Non-GAAP basis	369.0	\$	345.2

(A) The Company utilizes a non-GAAP measure in the computation of capital expenditures and includes 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 the Company's management uses internally to evaluate and manage the Company's expenditures.

Financing Activities

Cash used for financing activities increased \$106.9, primarily due to a net decrease in borrowings of \$107.9.

— Company borrowings (short- and long-term proceeds, net of repayments) were a net repayment of \$132.4 as compared to net repayments of \$24.5 during 2010. Payments in 2011 included a \$125.0 Medium-term note and the purchase of the remaining shares of SAGA (€44.8 million, or approximately \$62), as more fully described in Note 4, Business Combinations, to the consolidated financial statements.

Total debt at 31 December 2010 and 30 September 2010, expressed as a percentage of the sum of total debt and total equity, was 40.0% and 42.0%, respectively. Total debt decreased from \$4,128.3 at 30 September 2010 to \$3,992.0 at 31 December 2010.

The Company's total multicurrency revolving facility, maturing in July 2013, amounted to \$2,000.0 at 31 December 2010. No borrowings were outstanding under these commitments. Additional commitments totaling \$519.2 are maintained by our foreign subsidiaries, of which \$408.0 was borrowed and outstanding at 31 December 2010.

In February 2010, we commenced a tender offer to acquire all outstanding common stock of Airgas as further discussed in Note 3, Airgas Transaction, to the consolidated financial statements. In connection with this tender offer, we have secured committed financing in the form of a \$6.7 billion term loan credit facility. Refer to Note 15, Debt, in our 2010 Form 10-K for additional information on this credit facility.

We are in compliance with all of the financial and other covenants under our debt agreements.

In 2007, the Board of Directors authorized the repurchase of up to \$1,000 of our outstanding common stock. In the first three months of 2011, we did not purchase any shares under this authorization. At 31 December 2010, \$649.2 in share repurchase authorization remained.

CONTRACTUAL OBLIGATIONS

We are obligated to make future payments under various contracts such as debt agreements, lease agreements, unconditional purchase obligations and other longterm obligations. There have been no material changes to contractual obligations as reflected in the Management's Discussion and Analysis in our 2010 Form 10-K.

COMMITMENTS AND CONTINGENCIES

Refer to Note 17, Commitments and Contingencies, to the consolidated financial statements in our 2010 Form 10-K and Note 10, Commitments and Contingencies, in this quarterly filing.

OFF-BALANCE SHEET ARRANGEMENTS

There have been no material changes to off-balance sheet arrangements as reflected in the Management's Discussion and Analysis in our 2010 Form 10-K. We are not a primary beneficiary in any material variable interest entity. Our off-balance sheet arrangements are not reasonably likely to have a material impact on financial condition, changes in financial condition, and results of operations or liquidity.

RELATED PARTY TRANSACTIONS

Our principal related parties are equity affiliates operating in the industrial gas business. We did not engage in any material transactions involving related parties that included terms or other aspects that differ from those which would be negotiated at arm's length with clearly independent parties.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

Management's Discussion and Analysis of our financial condition and results of operations is based on the consolidated financial statements and accompanying notes that have been prepared in accordance with U.S. generally accepted accounting principles. The preparation of these financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Our significant accounting policies are described in Note 1, Major Accounting Policies, to the consolidated financial statements and the critical accounting policies and estimates are described in the Management's Discussion and Analysis included in our 2010 Form 10-K. Information concerning our implementation and impact of new accounting standards issued by the FASB is included in Note 2, New Accounting Guidance, to the consolidated financial statements. There have been no changes in accounting policy in the current period that had a material impact on our financial condition, change in financial condition, liquidity or results of operations.

NEW ACCOUNTING GUIDANCE

See Note 2, New Accounting Guidance, to the consolidated financial statements for information concerning our implementation and impact of new accounting guidance.

FORWARD-LOOKING STATEMENTS

This report contains "forward-looking statements," within the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. These forwardlooking statements are based on management's reasonable expectations and assumptions as of the date this report is filed. Actual performance and financial results may differ materially from projections and estimates expressed in the forward-looking statements because of many factors, including, without limitation, stalling of the 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; 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 material costs from customers: costs and outcomes of litigation or regulatory activities; consequences of acts of war or terrorism impacting the United States' and other markets; the effects of a pandemic or epidemic or a natural disaster; charges related to current portfolio management and cost reduction actions; the success of implementing cost reduction 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 new or changed 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 standards; and the timing and rate at which tax credits can be utilized and other risk factors described in the Company's Form 10-K for its fiscal year ended 30 September 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.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

Information on our utilization of financial instruments and an analysis of the sensitivity of these instruments to selected changes in market rates and prices is included in our 2010 Form 10-K.

There were no material changes to market risk sensitivities for interest rate risk on fixed debt, foreign currency exchange rate risk, or commodity price risk since 30 September 2010.

The net financial instrument position decreased from a liability of \$4,086 at 30 September 2010 to a liability of \$3,863 at 31 December 2010, principally due to the repayment of debt.

Item 4.Controls and Procedures

We maintain a comprehensive set of disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) designed to ensure that information required to be disclosed in our filings under the Exchange Act is recorded, processed, summarized and reported accurately and within the time periods specified in the SEC's rules and forms. As of 31 December 2010 (the Evaluation Date), an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures was carried out under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer. Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that, as of the end of the period covered by this report, the design and operation of these disclosure controls and procedures were effective to provide reasonable assurance of the achievement of the objectives described above.

During the quarter that ended on the Evaluation Date, there was no change in internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 6.Exhibits.

Exhibits required by Item 601 of Regulation S-K

- 10.1 Form of Award Agreement under the Long-Term Incentive Plan of the Company, used for FY2011 awards.
- 10.2 Amendment to the Amended and Restated Long-Term Incentive Plan dated 15 July 2010.
- 12. Computation of Ratios of Earnings to Fixed Charges.
- 31.1. Certification by the Principal Executive Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 31.2. Certification by the Principal Financial Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 32. Certification by the Principal Executive Officer and Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. †
- 101.INS XBRL Instance Document⁺⁺
- 101.SCH XBRL Taxonomy Extension Schema++
- 101.CAL XBRL Taxonomy Extension Calculation Linkbase++
- 101.LAB XBRL Taxonomy Extension Label Linkbasett
- 101.PRE XBRL Taxonomy Extension Presentation Linkbase††
- 101.DEF XBRL Taxonomy Extension Definition Linkbase††

† The certification attached as Exhibit 32 that accompanies this Quarterly Report on Form 10-Q, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of Air Products and Chemicals, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date of this Form 10-Q, irrespective of any general incorporation language contained in such filing.

^{+†} In accordance with Rule 406T of Regulation S-T, the information in these exhibits shall not be deemed to be "filed" for purposes of Section 18 of the Exchange Act, or otherwise subject to the liability of that section, and shall not be incorporated by reference into any registration statement or other document filed under the Securities Act, or the Exchange Act, except as shall be expressly set forth by specific reference in such filing.

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: 25 January 2011

Ву: _____

/s/ Paul E. Huck

Paul E. Huck Senior Vice President and Chief Financial Officer

EXHIBIT INDEX

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IMPORTANT - ACTION REQUIRED: In order for your FY11 stock awards to become effective, you must use the voting button at the top of this email, click on "I agree to the award terms & conditions" and reply by <u>28 February 2011</u>. Failure to respond by this date will result in forfeiture of your award.

Company Confidential Communication to: «First_name» «Last_name»

I would like to take this opportunity to thank you for your commitment to the Company both in the past and most importantly looking forward. You play an important role in the future performance of our Company.

One of the priorities of our management compensation program is to provide you with the opportunity to share in the long-term success of Air Products. As a result, I am pleased to present your 2011 stock awards under the Company's Long-Term Incentive Plan. These awards make up the long-term component of your total pay package and link your personal wealth to the performance of the Company.

Your 2011 awards are valued at \$<Tot Value> and include:

- A Nonstatutory *Stock Option* to purchase «Stock_Option» shares of Common Stock at a purchase price of \$86.39 per share, which is the 1 December 2010 closing sale price of a share of Common Stock, valued at \$«SO Value»; and
- An award of «RSUs» 4-Year Restricted Stock Units valued at \$«RSU Value», each Unit being equivalent in value to one share of Common Stock; and
- «Perf_Share» *Deferred Stock Units* with a three year performance period valued at \$<PS Value>, each Unit (a "*Performance Share*") being equivalent in value to one share of Common Stock.

Further details regarding your Awards and the value calculation factors can be found on the FY11 Equity Grant Statement which is included for your reference at the end of this document.

Thank you again for your dedication and on-going contributions to Air Products.

Your 2011 Awards are subject to and contingent upon your agreement to the attached conditions described in Exhibit A. Please read these conditions carefully, particularly the descriptions of "Prohibited Activities". This letter, together with its Exhibits, constitutes the agreement governing your 2011 Awards ("Awards Agreement"). Your 2011 Awards are also at all times subject to the applicable provisions of the Long-Term Incentive Plan (the "Plan") and to any determinations made by the Committee (or its delegate) with respect to your 2011 Awards as contemplated or permitted by the Plan or the Conditions.

Neither your 2011 Awards, this Awards Agreement or the Plan constitute a contract of employment; nor do they guarantee your continued employment for any period required for all or any of your 2011 Awards to vest, become exercisable, be earned or be paid out. Except as otherwise indicated all capitalized words used in this Awards Agreement have the meanings described in the Plan.

WITNESSETH the due execution of this Awards Agreement at Allentown, Pennsylvania effective as of the 1st day of December 2010 intending to be legally bound hereby.

AIR PRODUCTS AND CHEMICALS, INC.

Joh EM Glab

John E. McGlade

By:

Exhibits

EXHIBIT A

2011 AWARDS UNDER THE PLAN ARE SUBJECT TO THE FOLLOWING CONDITIONS:

In the event the Company determines, in its sole discretion, that you have engaged in a "Prohibited Activity" (as defined below), at any time during your employment, or within one year after termination of your employment from the Company or any Subsidiary, the Company may forfeit, cancel, modify, rescind, suspend, withhold, or otherwise limit or restrict any unexpired, unpaid or unexercised Awards outstanding under the Plan, and any exercise, payment or delivery of an Award or shares of Company Common Stock pursuant to an Award may be rescinded within six months after such exercise, payment or delivery. In the event of any such rescission, you shall pay to the Company the amount of any gain realized or payment received as a result of the exercise, payment or delivery, in such manner and on such terms as may be required by the Company, and the Company shall be entitled to set off against the amount of any such gain or payment any amount owed to you by the Company or any Subsidiary.

The Prohibited Activities are:

- (a) Nondisparagement making any statement, written or verbal, in any forum or media, or taking any action in disparagement of the Company or any Subsidiary or affiliate thereof (hereinafter, the "Company"), including but not limited to negative references to the Company or its products, services, corporate policies, current or former officers or employees, customers, suppliers, or business partners or associates;
- (b) No Publicity publishing any opinion, fact, or material; delivering any lecture or address; participating in the making of any film, radio broadcast, television transmission, internet postings, social media, and any other electronic media; or communicating with any representative of the media relating to confidential matters regarding the business or affairs of the Company;
- (c) Nondisclosure of Trade Secrets failure to hold in confidence all Trade Secrets of the Company that came into your knowledge during your employment by the Company, or disclosing, publishing, or making use of at any time such Trade Secrets, where the term "Trade Secret" means any technical or nontechnical data, formula, pattern, compilation, program, device, method, technique, drawing, process, financial data, financial plan, product plan, list of actual or potential customers or suppliers, or other information similar to any of the foregoing, which (i) derives economic value, actual or potential, from not being generally known to and not being readily ascertainable by proper means by, other persons who can derive economic value from its disclosure or use, and (ii) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy;
- (d) Nondisclosure of Confidential Information failure to hold in confidence all Confidential Information of the Company that came into your knowledge during your employment by the Company, or disclosing, publishing, or making use of such Confidential Information, where the term "Confidential Information" means any data or information, other than Trade Secrets, that is valuable to the Company and not generally known to the public or to competitors of the Company;

- (e) Return of Materials your failure, in the event of your termination of employment for any reason, promptly to deliver to the Company all memoranda, notes, records, manuals, or other documents, including all electronic or other copies of such materials and all documentation prepared or produced in connection therewith, containing Trade Secrets or Confidential Information regarding the Company's business, whether made or compiled by you or furnished to you by virtue of your employment with the Company; or your failure promptly to deliver to the Company all vehicles, computers, credit cards, telephones, handheld electronic devices, office equipment, and other property furnished to you by virtue of your employment with the Company;
- (f) Noncompete and Nonsolicitation rendering services for any organization as an employee, officer, director, consultant, advisor, agent, broker, independent contractor, principal, or partner, or engaging directly or indirectly in any business which, in the sole judgment of the Company, is or becomes competitive with the Company during the one (1) year period following the termination of your employment; or directly or indirectly soliciting any customer, supplier, contractor, employee, agent, or consultant of the Company with whom you had contact during the last two years of your employment with the Company or became aware of through your employment with the Company, to cease doing business with, or to terminate their employment or business relationship with, the Company; or
- (g) Violation of Company Policies violating any written policies of the Company applicable to you, including, without limitation, the Company's insider trading policy.

The above provisions of this Exhibit are in addition to, and shall not supersede, the terms of your Employee Patent and Confidential Information Agreement entered at the time you were employed by the Company.

Notwithstanding any other provisions of your Award Agreement, in the event the Company is required to prepare an accounting restatement due to its material noncompliance with any financial reporting requirement, the Company may recover from you any amounts or awards which it is required to recover under Section 10D of the Securities Exchange Act of 1934.

You expressly acknowledge and affirm that the foregoing provisions of this Exhibit are material and important terms of your Award and that your agreement to be bound by the terms of this paragraph is a condition precedent to your FY2011 Award.

All determinations regarding the interpretation, construction, enforcement, waiver, or modification of this Exhibit and/or the Plan shall be made in the Company's sole discretion and shall be final and binding on you and the Company. Determinations made under this Exhibit and the Plan need not be uniform and may be made selectively among individuals, whether or not such individuals are similarly situated.

If any of the terms of this Agreement in the opinion of the Company conflict or are inconsistent with any applicable law or regulation of any governmental agency having jurisdiction, the Company reserves the right to modify this Agreement to be consistent with applicable laws or regulations.

You understand and acknowledge that the Company holds certain personal information about you, including but not limited to your name, home address, telephone number, date of birth, social security number, salary, nationality, job title, and details of all Shares awarded, cancelled, vested, unvested, or outstanding (the "personal data"). Certain personal data may also constitute "sensitive

personal data" within the meaning of applicable local law. Such data include but are not limited to the information provided above and any changes thereto and other appropriate personal and financial data about you. You hereby provide explicit consent to the Company and any Subsidiary to process any such personal data and sensitive personal data. You also hereby provide explicit consent to the Company and any Subsidiary to transfer any such personal data and sensitive personal data outside the country in which you are employed, and to the United States. The legal persons for whom such personal data are intended are the Company and any third party providing services to the Company in connection with the administration of the Plan.

By accepting this award, you acknowledge having received and read the Plan Prospectus, and you consent to receiving information and materials in connection with this Award or any subsequent awards under the Company's long-term performance plans, including without limitation any prospectuses and plan documents, by any means of electronic delivery available now and/or in the future (including without limitation by e-mail, by Website access, and/or by facsimile), such consent to remain in effect unless and until revoked in writing by you. This Agreement and the Plan, which is incorporated herein by reference, constitute the entire agreement between you and the Company regarding the terms and conditions of this Award.

You submit to the exclusive jurisdiction and venue of the federal or state courts of the Commonwealth of Pennsylvania to resolve all issues that may arise out of or relate to and all determinations made under this Agreement. This Agreement shall be governed by the laws of the Commonwealth of Pennsylvania, without regard to conflicts or choice of law rules or principles.

If any court of competent jurisdiction finds any provision of this Agreement, or portion thereof, to be unenforceable, that provision shall be enforced to the maximum extent permissible so as to effect the intent of the parties, and the remainder of this Agreement shall continue in full force and effect.

EXHIBIT B

NONSTATUTORY STOCK OPTIONS

Exercisability and Expiration. Each Option entitles you to purchase one share of Company Common Stock ("Share") at a purchase price of \$86.39 (the "Grant Price") as described below. You can first purchase Shares as follows: (i) up to one-third of the Shares may be purchased on or after 1 December 2011 and (ii) up to an additional one-third of such Shares may be purchased on or after 1 December 2012 and 2013, respectively. The Options are granted as of 1 December 2010 and will continue for a period of ten (10) years from such grant date and will expire and no longer be exercisable after the close of the New York Stock Exchange on 1 December 2020. Any Option which is unexercised as of the close of the New York Stock Exchange on 1 December 2020 and which has not terminated in accordance with termination conditions of this Agreement, will be settled by a Net Exercise whereby the Company will issue you shares of Common Stock equal to the number of shares covered by the Option, reduced by the number of whole shares that has a Fair Market Value equal to or in excess of the sum of the aggregate Grant Price of the Options and the minimum statutory withholding tax obligation arising from the Net Exercise of the Options, and shall remit any excess of the Fair Market Value of such shares to you.

<u>How to Exercise</u>. You may purchase Shares covered by an Option by providing to the Company's agent, Fidelity Stock Plan Services, LLC or any successor thereto ("Fidelity"), notice of exercise of the Option in a form designated by Fidelity and the Grant Price of the Shares. Payment of the Grant Price and applicable taxes may be made in cash or by providing an irrevocable exercise notice coupled with irrevocable instructions to Fidelity to simultaneously sell the Shares and deliver to the Company on the settlement date the portion of the proceeds representing the Grant Price and any taxes to be withheld. Payment of the Grant Price may also be made by delivery or attestation of ownership of other Shares of Common Stock owned by you with a Fair Market Value equal to the Grant Price, in which case the number of Shares acquired in the exercise will be reduced by an amount equal in value to the amount of any taxes required to be withheld and by the number of Shares as to which ownership was attested.

In the event of a Change in Control, the Options shall become exercisable on the later of the Change in Control or 1 June 2011. In the event of any other change in the outstanding shares of the Common Stock of the Company or the occurrence of certain other events described in Section 12 of the Plan, an equitable adjustment shall be made in the number or kind of Shares or the Grant Price for Shares covered by your Options.

<u>Termination of Stock Options at End of Employment</u>. Your Options terminate as of the close of business on the last day of your employment with the Company and all its Subsidiaries, unless your employment ends due to your death, Disability, or Retirement on or after 30 November 2011. Upon your, death, Disability, or Retirement on or after 30 November 2011, your Options will not terminate and any unexercisable portion of the Options will be extended until its expiration (that is, will become and be exercisable) as if you have continued to be an active employee of the Company or a Subsidiary. Notwithstanding the above, if your employment with the Company or a Subsidiary is involuntarily terminated by the Company on or after 30 November 2011 due to action necessitated by business conditions, including, but not limited to, job eliminations, workforce reductions, divestitures of facilities, assets or businesses, sale by the Company of a Subsidiary, or plant closing, your exercisable Options will not be immediately terminated but will continue to be exercisable in accordance with their terms for six months following your last day of employment with the Company or a Subsidiary, and shall terminate at the end of such six month period.

<u>Assignment and Transfer</u>. Options are nonassignable and nontransferable except to your Designated Beneficiary, by will or the laws of descent and distribution, or by gift to family members or to trusts of which only family members are beneficiaries. Such transfers by gift can be made only after the Option has become exercisable and subject to such administrative procedures and to such restrictions and conditions as the officers of the Company shall determine to be consistent with the purposes of the Plan and the interests of the Company and/or to be necessary or appropriate for compliance with all applicable tax and other legal requirements. Subject to the foregoing, you may transfer Options by gift only by delivering to the Company at its principal offices in Allentown, Pennsylvania, written notice of the intent to transfer the Options on forms to be provided by the Company.

EXHIBIT C

RESTRICTED STOCK UNITS

<u>Grant of Restricted Stock Units</u>. Restricted Stock Units ("Units") are granted to you subject to the forfeiture conditions described below and the terms of the Air Products and Chemicals, Inc. Long-Term Incentive Plan as amended and restated on 28 January 2010 and as amended from time to time thereafter (the "Plan"). All capitalized terms have the meaning ascribed to them in the Plan unless otherwise noted. The Units are "Deferred Stock Units" as described in Section 9 of the Plan. The Deferral Period for Units begins on 1 December 2010 and ends on the earliest of 1 December 2014 or your death on or after 30 November 2011.

<u>Payment of Restricted Stock Units</u>. Each Unit granted to you represents the value of one share of Company Common Stock. Subject to the forfeiture conditions below, each Unit will entitle you to receive, following the end of the Deferral Period, a payment equal to the value of one share of Common Stock. Payment in respect of the Units will be delivered in shares of Common Stock or cash as determined by the Committee or its delegate; provided that applicable taxes will be withheld by reducing the number of shares delivered by an amount equal in market value to the taxes required to be withheld.

No cash dividends or other amounts shall be payable with respect to the Units during the Deferral Period. At the end of the Deferral Period, however, the Company will pay to you, for each Unit that has not been forfeited, an additional cash payment equal to the dividends that would have been paid on a share of Common Stock during the Deferral Period ("Dividend Equivalents"), net of applicable taxes.

If your employment by the Company or a Subsidiary terminates due to death, payment in respect of Units that are not forfeited and of related Dividend Equivalents shall be made to your Designated Beneficiary or, if none, your legal representative.

<u>Conditions of Forfeiture</u>. If your employment by the Company and all of its Subsidiaries is terminated for any reason prior to 30 November 2011, the Units will be forfeited in their entirety, except as required by law or determined by the Committee. On or after 30 November 2011, if your employment by the Company and all of its Subsidiaries is terminated prior to the end of the Deferral Period for any reason other than your death, Disability or Retirement, the Units will be forfeited in their entirety.

<u>Adjustments</u>. In the event of any change in the outstanding shares of Common Stock of the Company or the occurrence of certain other events as described in Section 12 of the Plan, an equitable adjustment of the number of Units covered by this Agreement shall be made as provided in the Plan.

EXHIBIT D

PERFORMANCE SHARES

<u>Performance Shares</u>. Performance Shares are granted to you subject to the forfeiture conditions described below and the terms of the Air Products and Chemicals, Inc. Long-Term Incentive Plan as amended and restated on 28 January 2010 and as amended from time to time thereafter (the "Plan"). The Performance Shares are "Deferred Stock Units" as described in Section 9 of the Plan.

<u>Payment of Deferred Stock Units</u>. The Performance Shares granted to you will be earned in accordance with the formula indicated on the attached Earn Out Schedule corresponding to the level of average Earnings Per Share Growth and spread of Return on Capital Employed over the Company's cost of capital achieved for the three fiscal year performance period beginning 1 October 2010 and ending 30 September 2013 (the "Performance Period"). Subject to the forfeiture and termination conditions described below, each earned Performance Share will entitle you to receive, at the end of the Deferral Period, one Share. The Deferral Period will begin on the date of this Agreement and will end on 30 November 2013.

Performance Shares earned and not forfeited shall be paid, reduced by the number of Shares equal in market value to any applicable taxes, as soon as administratively practical after the end of the Deferral Period, in Shares. No cash dividends or other amounts shall be payable with respect to the Performance Shares during the Deferral Period. At the end of the Deferral Period, for each earned and nonforfeited Performance Share, the Company will also pay to you a cash payment equal to the dividends which would have been paid on a Share during the Deferral Period ("Dividend Equivalents"), net of applicable taxes.

If your employment by the Company or a Subsidiary terminates during the Deferral Period due to death, payment in respect of earned Performance Shares that are not forfeited and of related Dividend Equivalents shall be made, as soon as practical after the Deferral Period, to your Designated Beneficiary or, if none, your legal representative, net of applicable taxes.

In the event of any change in the outstanding Shares of Common Stock of the Company or the occurrence of certain other events as described in Section 12 of the Plan, an equitable adjustment of the number of Performance Shares covered by this Agreement shall be made as provided in the Plan.

<u>Conditions of Forfeiture</u>. If your employment by the Company and all its affiliates is terminated for any reason prior to 30 November 2011, all your Performance Shares will be automatically forfeited in their entirety. If your employment by the Company and all its affiliates terminates on or after 30 November 2011, but during the Deferral Period, other than due to death, Disability, or Retirement, you will forfeit all of your Performance Shares. If your employment by the Company and all its affiliates is terminated on or after 30 November 2011, but during the Deferral Period, due to death, Disability, or Retirement, you will forfeit a pro-rata portion of your earned Performance Shares which portion in each case shall be based on the number of full months you worked during the Performance Period.

Notwithstanding the above, in the event the Company completes an acquisition of all the outstanding shares of common stock of Airgas, Inc. prior to 30 September 2012, the Company may, in the Committee's sole discretion, modify the terms of the Performance Shares, including the Earn Out Schedule, or may cancel the Performance Shares; provided that, no such modification or cancellation shall be effective unless the Performance Shares as modified in the event of modification, or alternative compensation awards in the event of cancellation, provide a compensation opportunity of equal or greater value to the modified or cancelled Performance Shares, which opportunity is subject to performance

conditions of no greater difficulty to achieve, and payable no later than two and one-half months after the end of the Deferral Period. In the event the Performance Shares are modified, the modified Performance Shares shall meet the requirements for the short-term deferral exemption from Internal Revenue Code Section 409A.

Notwithstanding anything to the contrary above, any Performance Shares earned or paid and any related Dividend Equivalents paid to you may be rescinded within three years of their payment in the event: the earning of such Performance Shares is predicated upon the achievement of financial results that are subsequently the subject of a restatement; the Committee determines in its sole discretion that you engaged in misconduct that caused or partially caused the need for the restatement; and the Performance Shares would not have been earned or a lesser amount of Performance Shares would have been earned based upon the restated financial results. In the event of any such rescission, you shall pay to the Company the amount of any gain realized or payment received as a result of any rescinded payment, in such manner and on such terms as may be required, and the Company shall be entitled to reduce the amount of any amount owed to you by the Company or any Subsidiary by such gain or payment.

Notwithstanding any other provisions of this Agreement, in the event the Company is required to prepare an accounting restatement due to its material noncompliance with any financial reporting requirement, the Company may recover from you any amounts or awards which it is required to recover under Section 10D of the Securities Exchange Act of 1934.

2011 Performance Share Earnout Schedule

(PERFORMANCE SHARES AWARDED) x (PAYOUT FACTOR) = (PERFORMANCE SHARES EARNED)

The Payout Factor is determined as follows:

33%		67%		Payout
EPS Growth	+	ROCE Spread	=	Factor*
Factor		Factor		

* The Payout Factor will be increased by 15 percentage points to determine the maximum payout. The Committee, in its discretion may decrease the actual Payout Factor by up to 30 percentage points from the maximum payout (15 percentage points from the calculated Payout Factor).

The EPS Growth and ROCE Spread Factors are determined from the following schedules:

EPS Growth ⁽¹⁾	EPS Growth Factor
-10%	0%
0%	35%
4%	50%
7%	80%
9%	100%
10%	120%
11%	130%
13%	160%
15%	180%
16%	200%

ROCE Spread (ROCE over	ROCE
Cost of Capital) ⁽²⁾	Spread Factor
<0%	0%
0%	50%
+3%	100%
+5%	200%

EPS growth is the average of annual growth in earnings per share over the prior year for each of fiscal years 2011, 2012, and 2013.
 POCE served is the surger of the difference between the Company's Deturn on Capital Employed and east of excital form.

¹ ROCE spread is the average of the difference between the Company's Return on Capital Employed and cost of capital for each of fiscal years 2011, 2012, and 2013.

Long-Term Incentive Plan FY11 Equity Grant Statement

«First_name» «Last_name»

2011 Equity Award Value: \$«Tot Value»

	Total Award Value	Stock Option Value (50%)	RSU Value (25%)	Performance Share Value (25%)
Award Value	\$ <tot Value></tot 	\$ <so value=""></so>	\$ <rsu Value></rsu 	\$ <ps value=""></ps>
Award Value per Unit		\$21.60	\$86.39	\$86.39
Number of Units		<stock_option></stock_option>	<rsu></rsu>	<perf_share></perf_share>

FY11 Award Value - Calculation Criteria

2011 Share Price	\$86.39
Stock Option Conversion Value	25.0%
Restricted Stock Unit Conversion Value	100%
Performance Share Conversion Value	100%

RESOLUTIONS REGARDING NET SETTLEMENT OF STOCK OPTIONS

WHEREAS, Section 14 of the Air Products and Chemicals, Inc. Long-Term Incentive Plan as amended and restated 28 January 2010 (the "Plan") authorizes the Board of Directors (the "Board") of Air Products and Chemicals, Inc. (the "Company") to amend the Plan in any respect which it deems to be in the best interests of the Company; and to amend outstanding Award Agreements with director Participants in a manner not inconsistent with the Plan and which, unless consented to by the affected Participant, does not adversely affect the interest of the Participant; and

WHEREAS, Section 16 of the Plan provides that the terms of the Plan as restated shall apply to Awards made prior to 28 January 2010, except to the extent such application would adversely affect the rights of Participants with respect to Awards made prior to such date or be a material modification of such Awards within the meaning of Code Section 409A; and the Board has been advised that the actions taken in the Resolutions below do not adversely affect the rights of the affected Participants and are not material modifications within the meaning of Section Code 409A; and

WHEREAS, it has been recommended to the Board that the Plan be amended to allow, to the extent and on such terms as the Administrator specifies, "Net Exercises" of Stock Options as defined herein below; and that outstanding Stock Option Awards to director Participants be amended to provide for automatic Net

Exercise of unexercised Stock Options on their expiration date to prevent the expiration of Stock Options due to restrictions placed by the Company on a Participant's trading in Company stock or other circumstances that prevent a Participant from financing Stock Option exercises using other available methods; and

WHEREAS, the Board believes it is in the best interests of the Company that Stock Options do not expire unexercised so that Participants receive the compensation which they were awarded and have earned and Participants whose positions expose them to sensitive information or whose circumstances otherwise prevent exercising of their Stock Options are not penalized for holding Stock Options long after the Options are fully vested, which is a practice beneficial to the Company; and

WHEREAS, the Board has been advised that automatic Net Exercise of Stock Options upon expiration will result in satisfaction of the exercise price of the Stock Options through withholding shares of Common Stock which may, from time to time, be valued at a market price that does not reflect nonpublic material information, positive or negative, that the Participant possesses at the time of the exercise; however, the Committee believes that an automatic Net Exercise of a Stock Option upon expiration, which does not give the Participant discretion as to timing and does not entail a sale in the market, will not adversely impact the market for the Company's stock, and that any potential net negative impact on the

Company would be immaterial and is outweighed by the Company's interest in appropriately compensating its employees and directors; and

WHEREAS, capitalized terms used in these Resolutions and not otherwise defined shall have the meanings set forth in the Plan or in the applicable Award Agreement thereunder.

NOW, THEREFORE, BE IT RESOLVED, that, effective as of the date hereof, the Plan is amended as follows:

(x) Section 4(b) is amended to add a new paragraph (v) as follows:

Shares subject to a Stock Option, which would have been issued upon the exercise of the Stock Option, but are instead withheld to cover the exercise price of the Stock Option in a Net Exercise as described in Section 6(c)(ii), shall not become available for Awards under the Plan; and

(y) Section 6(c)(ii) is amended to add a sentence at the end as follows:

To the extent and on such terms as the Administrator specifies, a Nonstatutory Stock Option may also be exercised by a Net Exercise. In a Net Exercise of an Option, the Company will not require a payment of the exercise price of the Option from the Participant but will reduce the number of shares of Common Stock issued upon the exercise of the Option by the smallest number of whole shares that has an aggregate Fair Market Value equal to or in excess of the aggregate exercise price for the shares covered by the Option exercised; and under this method the excess of the Fair Market Value of the shares shall be paid to the Participant, or may be used to satisfy tax withholding obligations; and

(z) Section 14 is amended to add the following definition:

"Net Exercise" shall mean a method for settling Stock Options whereby, instead of receiving a payment or tender by the Participant to cover the exercise price of the Stock Option, the Company issues to the Participant the net shares of Common Stock representing the difference between the aggregate Fair Market Value of the shares of Common Stock covered by the Stock Option and the aggregate exercise price of the Stock Option; and

RESOLVED FURTHER, that all outstanding Award Agreements with director Participants issued under the Plan are amended, effective as of the date hereof, to provide that any Nonstatutory Stock Option which is unexercised as of the close of the New York Stock Exchange ("NYSE") on the date it will expire will be settled by a Net Exercise whereby the Company will issue to the Participant shares of Company stock equal to the number of shares covered by the Stock Option reduced by the smallest number of whole shares with an aggregate Fair Market Value that is equal to or exceeds the aggregate Grant Price of the Stock Option; and the Company shall pay the Participant cash equal to any excess of the aggregate Fair Market Value of such shares over the aggregate Grant Price; and

RESOLVED FURTHER, that, for purposes of obtaining exemption under Securities Exchange Act Rule 16b-3, the Committee specifically approves the Net Exercise of the directors' outstanding Stock Options specified in the Exhibit attached hereto as of the close of the NYSE on 26 January 2011, to the extent such Stock Options are not exercised prior thereto; and, to effect each such Net Exercise, the Company shall issue to the director shares of Common Stock equal to the number of shares covered by the Stock Option as indicated in the Exhibit, reduced by the number of whole shares that has a Fair Market Value equal to or in excess of the Aggregate Exercise Price of the Stock Option indicated in the Exhibit; and

RESOLVED FURTHER, that the proper officers of the Company be, and they each hereby are, authorized and empowered in the name and on behalf of the Company, to make, execute, and deliver such instruments, documents, and

certificates and to do and perform such other acts and things as may be necessary or appropriate to carry out the intent and accomplish the purposes of these Resolutions, including without limitation, making such additional revisions, if any, to the Plan or to the Award Agreements as may be required, in their discretion and upon advice of counsel to the Company, for compliance with applicable law.

> AIR PRODUCTS AND CHEMICALS, INC. BOARD OF DIRECTORS 15 July 2010

AIR PRODUCTS AND CHEMICALS, INC., AND SUBSIDIARIES

COMPUTATION OF RATIOS OF EARNINGS TO FIXED CHARGES

(Unaudited)

		e Months Ended	Year Ended 30 September					
(Millions of dollars)		Dec 2010	2010	2009	2008	2007	2006	
Earnings:								
Income from continuing operations ⁽¹⁾	\$	275.9	\$1,054.5	\$651.3	\$1,113.5	\$1,040.4	\$ 753.0	
Add (deduct):								
Provision for income taxes		84.6	354.9	196.2	381.7	289.0	271.9	
Fixed charges, excluding capitalized interest		37.6	147.9	149.2	188.8	190.9	146.7	
Capitalized interest amortized during the period		2.3	8.7	7.7	6.6	6.4	6.5	
Undistributed earnings of less-than-fifty-percent-owned affiliates			(29.2)	(44.2)	(72.7)	(61.2)	(29.2)	
Earnings, as adjusted	\$	400.4	\$1,536.8	\$960.2	\$1,617.9	\$1,465.5	\$1,148.9	
Fixed Charges:								
Interest on indebtedness, including capital lease obligations	\$	30.5	\$ 121.8	\$125.1	\$ 164.4	\$ 163.7	\$ 119.8	
Capitalized interest		3.9	14.5	22.2	27.3	14.6	18.8	
Amortization of debt discount premium and expense		1.7	5.6	4.7	4.0	4.1	4.8	
Portion of rents under operating leases representative of the interest factor		5.4	20.5	19.4	20.4	23.1	22.1	
Fixed charges	\$	41.5	\$ 162.4	\$171.4	\$ 216.1	\$ 205.5	\$ 165.5	
Ratio of Earnings to Fixed Charges ^{(2):}		9.6	9.5	5.6	7.5	7.1	6.9	

⁽¹⁾ During the twelve months ended 30 September 2009, income from continuing operations included a charge of \$298.2 (\$200.3 after-tax) for the global cost reduction plan.
 ⁽²⁾ The sector of the sec

The ratio of earnings to fixed charges is determined by dividing earnings, which includes income from continuing operations before taxes, undistributed earnings of less-than-fifty-percent-owned affiliates, and fixed charges, by fixed charges. Fixed charges consist of interest on all indebtedness plus that portion of operating lease rentals representative of the interest factor (deemed to be 21% of operating lease rentals).

PRINCIPAL EXECUTIVE OFFICER'S CERTIFICATION

I, John E. McGlade, certify that:

- 1. I have reviewed this quarterly report on Form 10-Q of Air Products and Chemicals, Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's

auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: 25 January 2011

/s/ John E. McGlade

John E. McGlade President and Chief Executive Officer

PRINCIPAL FINANCIAL OFFICER'S CERTIFICATION

I, Paul E. Huck, certify that:

- 1. I have reviewed this quarterly report on Form 10-Q of Air Products and Chemicals, Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's

auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: 25 January 2011

/s/ Paul E. Huck

Paul E. Huck Senior Vice President and Chief Financial Officer

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Air Products and Chemicals, Inc. (the "Company") on Form 10-Q for the period ending 31 December 2010, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), we, John E. McGlade, Chief Executive Officer of the Company, and Paul E. Huck, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- 1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- 2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: 25 January 2011

/s/ John E. McGlade

John E. McGlade Chief Executive Officer

/s/ Paul E. Huck

Paul E. Huck Chief Financial Officer