

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

FORM 10-Q

(Mark One)

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

For the quarterly period ended 31 March 2015

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)

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  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  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  Accelerated filer  Non-accelerated filer  Smaller reporting company   
(Do not check if a 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 31 March 2015
Common Stock, \$1 par value	214,764,754

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**PART I. FINANCIAL INFORMATION**  
**Item 1. Financial Statements**

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

(Millions of dollars, except for share data)	Three Months Ended 31 March		Six Months Ended 31 March	
	2015	2014	2015	2014
<b>Sales</b>	\$2,414.5	\$2,581.9	\$4,975.3	\$5,127.4
Cost of sales	1,699.6	1,917.6	3,530.6	3,783.5
Selling and administrative	240.9	263.4	499.1	544.3
Research and development	36.3	33.2	71.7	66.7
Business restructuring and cost reduction actions	55.4	—	87.8	—
Pension settlement loss	12.6	—	12.6	—
Gain on previously held equity interest	—	—	17.9	—
Other income (expense), net	4.7	17.0	13.0	37.4
<b>Operating Income</b>	<b>374.4</b>	<b>384.7</b>	<b>804.4</b>	<b>770.3</b>
Equity affiliates' income	33.0	30.4	76.1	68.6
Interest expense	23.4	31.5	52.5	64.8
<b>Income from Continuing Operations before Taxes</b>	<b>384.0</b>	<b>383.6</b>	<b>828.0</b>	<b>774.1</b>
Income tax provision	87.1	92.1	193.6	186.6
<b>Income from Continuing Operations</b>	<b>296.9</b>	<b>291.5</b>	<b>634.4</b>	<b>587.5</b>
<b>Income from Discontinued Operations, net of tax</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>3.1</b>
<b>Net Income</b>	<b>296.9</b>	<b>291.5</b>	<b>634.4</b>	<b>590.6</b>
<b>Less: Net Income Attributable to Noncontrolling Interests</b>	<b>6.9</b>	<b>8.0</b>	<b>19.8</b>	<b>16.9</b>
<b>Net Income Attributable to Air Products</b>	<b>\$ 290.0</b>	<b>\$ 283.5</b>	<b>\$ 614.6</b>	<b>\$ 573.7</b>
<b>Net Income Attributable to Air Products</b>				
Income from continuing operations	\$ 290.0	\$ 283.5	\$ 614.6	\$ 570.6
Income from discontinued operations	—	—	—	3.1
<b>Net Income Attributable to Air Products</b>	<b>\$ 290.0</b>	<b>\$ 283.5</b>	<b>\$ 614.6</b>	<b>\$ 573.7</b>
<b>Basic Earnings Per Common Share Attributable to Air Products</b>				
Income from continuing operations	\$ 1.35	\$ 1.33	\$ 2.87	\$ 2.69
Income from discontinued operations	—	—	—	.01
<b>Net Income Attributable to Air Products</b>	<b>\$ 1.35</b>	<b>\$ 1.33</b>	<b>\$ 2.87</b>	<b>\$ 2.70</b>
<b>Diluted Earnings Per Common Share Attributable to Air Products</b>				
Income from continuing operations	\$ 1.33	\$ 1.32	\$ 2.83	\$ 2.66
Income from discontinued operations	—	—	—	.01
<b>Net Income Attributable to Air Products</b>	<b>\$ 1.33</b>	<b>\$ 1.32</b>	<b>\$ 2.83</b>	<b>\$ 2.67</b>
<b>Weighted Average Common Shares – Basic</b> (in millions)	<b>214.9</b>	<b>212.4</b>	<b>214.5</b>	<b>212.1</b>
<b>Weighted Average Common Shares – Diluted</b> (in millions)	<b>217.4</b>	<b>214.9</b>	<b>217.0</b>	<b>214.6</b>
<b>Dividends Declared Per Common Share – Cash</b>	<b>\$ .81</b>	<b>\$ .77</b>	<b>\$ 1.58</b>	<b>\$ 1.48</b>

The accompanying notes are an integral part of these statements.

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

(Millions of dollars)	Three Months Ended 31 March	
	2015	2014
<b>Net Income</b>	\$ 296.9	\$ 291.5
<b>Other Comprehensive Loss, net of tax:</b>		
Translation adjustments, net of tax of \$61.4 and (\$8.1)	(232.1)	(85.6)
Net gain (loss) on derivatives, net of tax of (\$1.4) and \$.5	(.4)	4.6
Pension and postretirement benefits, net of tax of (\$2.7)	(4.6)	—
Reclassification adjustments:		
Derivatives, net of tax of \$6.2 and (\$3.6)	17.6	(10.8)
Pension and postretirement benefits, net of tax of \$14.7 and \$9.6	28.6	20.6
<b>Total Other Comprehensive Loss</b>	<b>(190.9)</b>	<b>(71.2)</b>
<b>Comprehensive Income</b>	<b>106.0</b>	<b>220.3</b>
<b>Net Income Attributable to Noncontrolling Interests</b>	<b>6.9</b>	<b>8.0</b>
<b>Other Comprehensive Income (Loss) Attributable to Noncontrolling Interests</b>	<b>.6</b>	<b>(3.5)</b>
<b>Comprehensive Income Attributable to Air Products</b>	<b>\$ 98.5</b>	<b>\$ 215.8</b>

(Millions of dollars)	Six Months Ended 31 March	
	2015	2014
<b>Net Income</b>	\$ 634.4	\$ 590.6
<b>Other Comprehensive Loss, net of tax:</b>		
Translation adjustments, net of tax of \$77.5 and (\$21.7)	(476.5)	(54.2)
Net gain (loss) on derivatives, net of tax of (\$12.8) and \$5.3	(24.2)	17.7
Pension and postretirement benefits, net of tax of (\$2.7)	(4.6)	—
Reclassification adjustments:		
Derivatives, net of tax of \$11.6 and (\$8.0)	31.1	(22.7)
Pension and postretirement benefits, net of tax of \$24.8 and \$19.2	49.5	40.6
<b>Total Other Comprehensive Loss</b>	<b>(424.7)</b>	<b>(18.6)</b>
<b>Comprehensive Income</b>	<b>209.7</b>	<b>572.0</b>
<b>Net Income Attributable to Noncontrolling Interests</b>	<b>19.8</b>	<b>16.9</b>
<b>Other Comprehensive Loss Attributable to Noncontrolling Interests</b>	<b>(4.5)</b>	<b>(4.6)</b>
<b>Comprehensive Income Attributable to Air Products</b>	<b>\$ 194.4</b>	<b>\$ 559.7</b>

The accompanying notes are an integral part of these statements.

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

(Millions of dollars, except for share data)	31 March 2015	30 September 2014
<b>Assets</b>		
<b>Current Assets</b>		
Cash and cash items	\$ 195.7	\$ 336.6
Trade receivables, net	1,381.4	1,486.0
Inventories	693.3	706.0
Contracts in progress, less progress billings	159.3	155.4
Prepaid expenses	114.9	87.8
Other receivables and current assets	569.9	523.0
<b>Total Current Assets</b>	<b>3,114.5</b>	<b>3,294.8</b>
Investment in net assets of and advances to equity affiliates	1,223.9	1,257.9
Plant and equipment, at cost	19,981.8	20,223.5
Less: accumulated depreciation	10,495.9	10,691.4
Plant and equipment, net	9,485.9	9,532.1
Goodwill, net	1,155.4	1,237.3
Intangible assets, net	553.4	615.8
Noncurrent capital lease receivables	1,373.9	1,414.9
Other noncurrent assets	586.8	426.3
<b>Total Noncurrent Assets</b>	<b>14,379.3</b>	<b>14,484.3</b>
<b>Total Assets</b>	<b>\$17,493.8</b>	<b>\$17,779.1</b>
<b>Liabilities and Equity</b>		
<b>Current Liabilities</b>		
Payables and accrued liabilities	\$ 1,606.9	\$ 1,591.0
Accrued income taxes	55.7	78.0
Short-term borrowings	1,261.0	1,228.7
Current portion of long-term debt	157.7	65.3
<b>Total Current Liabilities</b>	<b>3,081.3</b>	<b>2,963.0</b>
Long-term debt	4,511.5	4,824.5
Other noncurrent liabilities	1,042.9	1,187.5
Deferred income taxes	1,101.8	995.5
<b>Total Noncurrent Liabilities</b>	<b>6,656.2</b>	<b>7,007.5</b>
<b>Total Liabilities</b>	<b>9,737.5</b>	<b>9,970.5</b>
<b>Commitments and Contingencies – See Note 11</b>		
<b>Redeemable Noncontrolling Interest</b>	280.0	287.2
<b>Air Products Shareholders' Equity</b>		
Common stock (par value \$1 per share; issued 2015 and 2014 – 249,455,584 shares)	249.4	249.4
Capital in excess of par value	877.7	842.0
Retained earnings	10,267.2	9,993.2
Accumulated other comprehensive loss	(1,662.1)	(1,241.9)
Treasury stock, at cost (2015 – 34,690,830 shares; 2014 – 35,917,440 shares)	(2,399.7)	(2,476.9)
<b>Total Air Products Shareholders' Equity</b>	<b>7,332.5</b>	<b>7,365.8</b>
<b>Noncontrolling Interests</b>	143.8	155.6
<b>Total Equity</b>	<b>7,476.3</b>	<b>7,521.4</b>
<b>Total Liabilities and Equity</b>	<b>\$17,493.8</b>	<b>\$17,779.1</b>

The accompanying notes are an integral part of these statements.

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

(Millions of dollars)	Six Months Ended 31 March	
	2015	2014
<b>Operating Activities</b>		
Net Income	\$ 634.4	\$ 590.6
Less: Net income attributable to noncontrolling interests	19.8	16.9
Net income attributable to Air Products	614.6	573.7
Income from discontinued operations	—	(3.1)
Income from continuing operations attributable to Air Products	614.6	570.6
Adjustments to reconcile income to cash provided by operating activities:		
Depreciation and amortization	468.8	463.3
Deferred income taxes	53.5	36.4
Gain on previously held equity interest	(17.9)	—
Undistributed earnings of unconsolidated affiliates	(58.0)	(19.2)
Share-based compensation	24.8	23.4
Noncurrent capital lease receivables	(8.7)	1.1
Other adjustments	(58.6)	75.0
Working capital changes that provided (used) cash, excluding effects of acquisitions and divestitures:		
Trade receivables	23.6	(82.0)
Inventories	(14.0)	33.6
Contracts in progress, less progress billings	(16.2)	17.6
Other receivables	(75.2)	(3.7)
Payables and accrued liabilities	71.8	(130.0)
Other working capital	(41.3)	38.6
<b>Cash Provided by Operating Activities</b>	<b>967.2</b>	<b>1,024.7</b>
<b>Investing Activities</b>		
Additions to plant and equipment	(817.6)	(802.2)
Acquisitions, less cash acquired	(34.5)	—
Proceeds from sale of assets and investments	10.8	11.2
Other investing activities	1.5	(.4)
<b>Cash Used for Investing Activities</b>	<b>(839.8)</b>	<b>(791.4)</b>
<b>Financing Activities</b>		
Long-term debt proceeds	337.3	39.2
Payments on long-term debt	(384.6)	(491.2)
Net increase in commercial paper and short-term borrowings	54.3	370.9
Dividends paid to shareholders	(329.4)	(300.2)
Proceeds from stock option exercises	77.2	57.7
Excess tax benefit from share-based compensation	22.7	12.6
Other financing activities	(34.1)	(26.7)
<b>Cash Used for Financing Activities</b>	<b>(256.6)</b>	<b>(337.7)</b>
<b>Discontinued Operations</b>		
Cash provided by operating activities	—	.7
Cash provided by investing activities	—	9.8
Cash used for financing activities	—	—
<b>Cash Provided by Discontinued Operations</b>	<b>—</b>	<b>10.5</b>
<b>Effect of Exchange Rate Changes on Cash</b>	<b>(11.7)</b>	<b>.4</b>
Decrease in Cash and Cash Items	(140.9)	(93.5)
Cash and Cash Items – Beginning of Year	336.6	450.4
Cash and Cash Items – End of Period	\$ 195.7	\$ 356.9
<b>Supplemental Cash Flow Information</b>		
Cash paid for taxes (net of cash refunds)	\$ 155.8	\$ 64.5

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 2014 Form 10-K for a description of major accounting policies. There have been no significant changes to these accounting policies during the first six months of fiscal year 2015.

The Company realigned its businesses in new reporting segments and began operating under the new structure effective 1 October 2014. Prior year segment information presented has been restated to conform with the fiscal year 2015 presentation. See Note 18, Business Segment Information, for further details.

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 (U.S. GAAP) 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 last-in, first-out (LIFO) cost basis, which are only 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 in 2015*

**Unrecognized Tax Benefits**

In July 2013, the Financial Accounting Standards Board (FASB) issued guidance to require standard presentation of an unrecognized tax benefit when a carryforward related to net operating losses or tax credits exists. We adopted this guidance prospectively beginning in the first quarter of fiscal year 2015. This guidance did not have a significant impact on our consolidated financial statements.

*New Accounting Guidance to be Implemented*

**Discontinued Operations**

In April 2014, the FASB issued an update to change the criteria for determining which disposals qualify as a discontinued operation and to expand related disclosure requirements. Under the new guidance, a disposal is required to be reported in discontinued operations if the disposal represents a strategic shift that has or will have a major effect on operations and financial results. This guidance will be effective prospectively for new disposals and new disposal groups classified as held for sale beginning in fiscal year 2016, with early adoption permitted.

**Revenue Recognition**

In May 2014, the FASB issued guidance based on the principle that revenue is recognized in an amount expected to be collected and to which the entity expects to be entitled in exchange for the transfer of goods or services. This guidance is effective for us beginning in fiscal year 2018 and can be adopted either retrospectively or as a cumulative-effect adjustment as of the date of adoption. Early adoption is not permitted. We are currently evaluating the adoption alternatives and impact that this update will have on our consolidated financial statements.

**Share-Based Compensation**

In June 2014, the FASB issued guidance clarifying that share-based compensation performance targets that could be achieved after the requisite service period should be treated as a performance condition that affects vesting, rather than a condition that affects the grant-date fair value of the award. This guidance is effective for us beginning in fiscal year 2017, with early adoption permitted. We do not expect this guidance to have a significant impact on our consolidated financial statements.

### **Consolidation Analysis**

In February 2015, the FASB issued an update to amend current consolidation guidance. The guidance impacts the analysis an entity must perform in determining if it should consolidate certain legal entities such as limited partnerships, limited liability corporations, and securitization structures. The guidance is effective beginning fiscal year 2017, with early adoption permitted. The guidance may be applied retrospectively or using a modified retrospective approach, by recording a cumulative-effect adjustment to equity as of the beginning of the fiscal year of adoption. We are currently evaluating the impact this update will have on our consolidated financial statements.

### **Debt Issuance Costs**

In April 2015, the FASB issued guidance requiring that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of the debt instead of as a separate deferred asset. This change in accounting principle will be effective beginning in fiscal year 2017 with early adoption permitted and must be applied retrospectively. This guidance only affects the presentation of debt issuance costs and will not have a significant impact on our consolidated financial statements.

## **3. DISCONTINUED OPERATIONS**

During the second quarter of 2012, the Board of Directors authorized the sale of our Homecare business which has been accounted for as a discontinued operation.

In the third quarter of 2012, we sold the majority of our Homecare business to The Linde Group for sale proceeds of €590 million (\$777) and recognized a gain of \$207.4 (\$150.3 after-tax, or \$.70 per share). Additionally, during the third quarter of 2012, an impairment charge of \$33.5 (\$29.5 after-tax, or \$.14 per share) was recorded to write down the remaining business, which was primarily in the United Kingdom and Ireland, to its estimated net realizable value. In the fourth quarter of 2013, an additional charge of \$18.7 (\$13.6 after-tax, or \$.06 per share) was recorded to update our estimate of the net realizable value. In the first quarter of 2014, we sold the remaining portion of the Homecare business for £6.1 million (\$9.8) and recorded a gain on sale of \$2.4. We entered into an operations guarantee related to the obligations under certain homecare contracts assigned in connection with the transaction. Our maximum potential payment under the guarantee is £20 million (approximately \$30 at 31 March 2015), and our exposure will be extinguished by 2020. The fair value of the guarantee is not material.

## **4. BUSINESS RESTRUCTURING AND COST REDUCTION ACTIONS**

The charges we record for business restructuring and cost reduction actions have been excluded from segment operating income and are reflected on the consolidated income statements as "Business Restructuring and Cost Reduction Actions."

### **Business Realignment and Reorganization**

On 18 September 2014, we announced plans to reorganize the Company, including realignment of our businesses in new reporting segments and other organizational changes, effective as of 1 October 2014. Refer to Note 18, Business Segment Information, for additional details. As a result of this reorganization, we will incur ongoing severance and other charges.

For the three and six months ended 31 March 2015, we recognized an expense of \$55.4 (\$38.2 after-tax, or \$.18 per share) and \$87.8 (\$59.9 after-tax, or \$.27 per share), respectively. During the first six months of fiscal year 2015, the reorganization has resulted in the elimination of approximately 1,100 positions. The 2015 charges related to the segments as follows: \$13.8 in Industrial Gases – Americas, \$29.5 in Industrial Gases – EMEA, \$7.5 in Industrial Gases – Asia, \$3.1 in Industrial Gases – Global, \$10.6 in Materials Technologies, and \$23.3 in Corporate and other.

During the fourth quarter of 2014, an expense of \$12.7 (\$8.2 after-tax, or \$.04 per share) was incurred relating to the elimination of approximately 50 positions. The 2014 charge related to the segments as follows: \$2.9 in Industrial Gases – Americas, \$3.1 in Industrial Gases – EMEA, \$1.5 in Industrial Gases – Asia, \$1.5 in Industrial Gases – Global, \$1.6 in Materials Technologies, and \$2.1 in Corporate and other.

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The following table summarizes the carrying amount of the accrual for the business realignment and reorganization at 31 March 2015:

	Severance and Other Benefits
2014 Charge	\$ 12.7
Cash expenditures	(2.2)
30 September 2014	\$ 10.5
2015 Charge	87.8
Amount reflected in pension liability	(8.8)
Cash expenditures	(57.4)
Currency translation adjustment	(1.1)
31 March 2015	\$ 31.0

### 2013 Plan

During the fourth quarter of 2013, we recorded an expense of \$231.6 (\$157.9 after-tax, or \$.74 per share) reflecting actions to better align our cost structure with current market conditions. The asset and contract actions primarily impacted the Electronics Materials business due to continued weakness in the photovoltaic (PV) and light-emitting diode (LED) markets. The severance and other contractual benefits primarily impacted our Industrial Gases businesses and corporate functions in response to weaker than expected business conditions in Europe and Asia, reorganization of our operations and functional areas, and previously announced senior executive changes.

The following table summarizes the carrying amount of the accrual for the 2013 Plan at 31 March 2015:

	Severance and Other Benefits	Asset Actions	Contract Actions/Other	Total
2013 Charge	\$ 71.9	\$ 100.4	\$ 59.3	\$ 231.6
Amount reflected in pension liability	(6.9)	—	—	(6.9)
Noncash expenses	—	(100.4)	—	(100.4)
Cash expenditures	(3.0)	—	(58.5)	(61.5)
Currency translation adjustment	.4	—	—	.4
30 September 2013	\$ 62.4	\$ —	\$ .8	\$ 63.2
Cash expenditures	(51.7)	—	(.8)	(52.5)
Currency translation adjustment	(.6)	—	—	(.6)
30 September 2014	\$ 10.1	\$ —	\$ —	\$ 10.1
Cash expenditures	(9.8)	—	—	(9.8)
Currency translation adjustment	(.3)	—	—	(.3)
31 March 2015	\$ —	\$ —	\$ —	\$ —

## 5. BUSINESS COMBINATIONS

On 30 December 2014, we acquired our partner's equity ownership interest in a liquefied industrial gases production joint venture in North America for \$22.6, which increased our ownership from 50% to 100%. The transaction was accounted for as a business combination, and subsequent to the acquisition, the results are consolidated within our Industrial Gases – Americas segment. The assets acquired, primarily plant and equipment, were recorded at their fair market values as of the acquisition date.

The acquisition date fair value of the previously held equity interest was determined using a discounted cash flow analysis under the income approach. The six months ended 31 March 2015 include a gain of \$17.9 (\$11.2 after-tax, or \$.05 per share) as a result of revaluing our previously held equity interest to fair value as of the acquisition date. This gain is reflected on the consolidated income statements as "Gain on previously held equity interest."

## 6. INVENTORIES

The components of inventories are as follows:

	31 March 2015	30 September 2014
Finished goods	\$ 509.2	\$ 493.9
Work in process	36.3	34.1
Raw materials, supplies and other	259.4	283.4
	\$ 804.9	\$ 811.4
Less: Excess of FIFO cost over LIFO cost	(111.6)	(105.4)
Inventories	\$ 693.3	\$ 706.0

First-in, first-out (FIFO) cost approximates replacement cost.

## 7. GOODWILL

Changes to the carrying amount of consolidated goodwill by segment for the six months ended 31 March 2015 are as follows:

	Industrial Gases– Americas	Industrial Gases– EMEA	Industrial Gases– Asia	Industrial Gases– Global	Materials Technologies	Total
Balance at 30 September 2014	\$327.2	\$433.3	\$140.0	\$21.4	\$315.4	\$1,237.3
Acquisitions and adjustments	2.2	3.2	—	—	—	5.4
Currency translation and other	(9.8)	(58.5)	(4.0)	(1.2)	(13.8)	(87.3)
Balance at 31 March 2015	\$319.6	\$378.0	\$136.0	\$20.2	\$301.6	\$1,155.4

	31 March 2015	30 September 2014
Goodwill, gross	\$1,427.6	\$1,522.1
Accumulated impairment losses <sup>(A)</sup>	(272.2)	(284.8)
Goodwill, net	\$1,155.4	\$1,237.3

<sup>(A)</sup> Amount is attributable to the Industrial Gases – Americas segment and includes currency translation of \$33.0 and \$20.4 as of 31 March 2015 and 30 September 2014, respectively.

Due to the reorganization of our business effective as of 1 October 2014, we conducted a goodwill impairment test in the first quarter of 2015 on our thirteen reporting units. We determined that the fair value of all of our reporting units, except Latin America within the Industrial Gases – Americas segment, substantially exceeded their carrying value. The Latin America reporting unit is composed predominately of our Indura business acquired by the Company in 2012, with business units in Chile, Colombia, and other Latin America countries. In the fourth quarter of 2014, we recorded an impairment of goodwill of \$305.2 related to this reporting unit. As of 1 October 2014, the fair value of our Latin America reporting unit exceeded its carrying value by approximately 10% primarily due to depreciation, amortization, and the impact of a Chilean tax rate change which had previously been reflected in the determination of the fair value of the reporting unit but not reflected in the carrying value until the enactment date. The fair value of the Latin America reporting unit at 1 October 2014 was estimated based on a similar outlook and assumptions as those used in the 2014 impairment testing. As of 31 March 2015, the carrying value of Latin America goodwill was \$223.0, or approximately 1.3% of consolidated total assets.

Management judgement is required in the determination of each assumption utilized in the valuation model, and actual results could differ from the estimates. Revenue growth and EBITDA margin assumptions are two primary drivers of the fair value of our Latin America reporting unit, and these assumptions are underpinned by our expectations for long-term manufacturing growth in the region. We will continue to evaluate goodwill on an annual basis as of the beginning of our fourth fiscal quarter and whenever there are indicators of potential impairment.

## 8. 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 our cash flow volatility from 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 executing 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. We also enter into forward exchange contracts to hedge the cash flow exposure on intercompany loans. The portfolio of forward exchange contracts consists primarily of Euros and U.S. dollars as well as Euros and British Pound Sterling. The maximum remaining term of any forward exchange contract currently outstanding and designated as a cash flow hedge at 31 March 2015 is 3.5 years.

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 exchange contracts is Euros and U.S. dollars.

In addition to the forward exchange contracts that are designated as hedges, we utilize forward exchange contracts that are not designated as hedges. These contracts are used to economically hedge foreign currency-denominated monetary assets and liabilities, primarily working capital. The primary objective of these forward exchange 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 comprises 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 March 2015		30 September 2014	
	US\$ Notional	Years Average Maturity	US\$ Notional	Years Average Maturity
<b>Forward Exchange Contracts:</b>				
Cash flow hedges	\$3,100.0	.5	\$2,965.5	.7
Net investment hedges	587.6	4.0	685.9	2.9
Not designated	1,027.6	.4	381.5	.1
<b>Total Forward Exchange Contracts</b>	<b>\$4,715.2</b>	<b>.9</b>	<b>\$4,032.9</b>	<b>1.0</b>

In addition to the above, we use foreign currency-denominated debt to hedge the foreign currency exposures of our net investment in certain foreign subsidiaries. The designated foreign currency denominated debt and related accrued interest included €890.4 million (\$956.2) and Chinese Renminbi 1,085.8 million (\$175.1) at 31 March 2015 and €879.3 million (\$1,110.6) and Chinese Renminbi 900.9 million (\$146.8) at 30 September 2014. The designated foreign currency-denominated debt is located on the balance sheet in the long-term debt and short-term borrowings line items.

### 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, the 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.

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**Interest Rate Management Contracts**

We enter into interest rate swaps 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 manage interest rate risks and costs inherent in our debt portfolio. Our interest rate management portfolio generally consists of fixed-to-floating interest rate swaps (which are designated as fair value hedges), pre-issuance interest rate swaps and treasury locks (which hedge the interest rate risk associated with anticipated fixed-rate debt issuances and are designated as cash flow hedges), and floating-to-fixed interest rate swaps (which are designated as cash flow hedges). At 31 March 2015, the outstanding interest rate swaps were denominated in U.S. dollars and Chilean Pesos. The maximum remaining term of any interest rate swap designated as a cash flow hedge is 0.4 years. The notional amount of the interest rate swap agreements is equal to or less than the designated debt being hedged. When interest rate swaps are used to hedge variable-rate debt, the indices of the swaps and the debt to which they are designated are the same. It is our policy not to enter into any interest rate management contracts that 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 our risk management function 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 either certain net investments in foreign operations or nonfunctional currency cash flows related to intercompany loans. The current cross currency interest rate swap portfolio primarily consists of fixed-to-fixed swaps between U.S. dollars and offshore Chinese Renminbi, U.S. dollars and British Pound Sterling, U.S. dollars and Chilean Pesos, as well as U.S. dollars and Euros.

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

	31 March 2015				30 September 2014			
	US\$ Notional	Average Pay %	Average Receive %	Years Average Maturity	US\$ Notional	Average Pay %	Average Receive %	Years Average Maturity
Interest rate swaps (fair value hedge)	\$600.0	LIBOR	2.77%	3.8	\$600.0	LIBOR	2.77%	4.3
Cross currency interest rate swaps (net investment hedge)	\$773.1	3.43%	2.01%	3.2	\$404.5	3.70%	1.15%	2.7
Interest rate swaps (cash flow hedge)	\$ 52.8	6.84%	3.68%	.4	\$431.7	2.36%	.71%	.4
Cross currency interest rate swaps (cash flow hedge)	\$558.0	3.85%	2.94%	3.9	\$446.3	3.39%	2.86%	4.2
Cross currency interest rate swaps (not designated)	\$ —	— %	— %	—	\$ 15.4	3.62%	.05%	.8

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

	Balance Sheet Location	31 March 2015	30 September 2014	Balance Sheet Location	31 March 2015	30 September 2014
<b>Derivatives Designated as Hedging Instruments:</b>						
Forward exchange contracts	Other receivables	\$109.3	\$78.9	Accrued liabilities	\$194.8	\$61.8
Interest rate management contracts	Other receivables	29.7	21.1	Accrued liabilities	.1	18.8
Forward exchange contracts	Other noncurrent assets	96.8	10.5	Other noncurrent liabilities	4.8	3.1
Interest rate management contracts	Other noncurrent assets	143.7	54.6	Other noncurrent liabilities	—	.3
<b>Total Derivatives Designated as Hedging Instruments</b>		\$379.5	\$165.1		\$199.7	\$84.0
<b>Derivatives Not Designated as Hedging Instruments:</b>						
Forward exchange contracts	Other receivables	\$29.2	\$4.0	Accrued liabilities	\$33.1	\$1.9
Interest rate management contracts	Other receivables	—	2.6	Accrued liabilities	—	—
<b>Total Derivatives Not Designated as Hedging Instruments</b>		\$29.2	\$6.6		\$33.1	\$1.9
<b>Total Derivatives</b>		\$408.7	\$171.7		\$232.8	\$85.9

The table below summarizes the gain or loss related to our cash flow hedges, fair value hedges, net investment hedges, and derivatives not designated as hedging instruments:

	Three Months Ended 31 March							
	Forward Exchange Contracts		Foreign Currency Debt		Other <sup>(A)</sup>		Total	
	2015	2014	2015	2014	2015	2014	2015	2014
<b>Cash Flow Hedges, net of tax:</b>								
Net gain (loss) recognized in OCI (effective portion)	\$(22.0)	\$ 5.1	\$ —	\$ —	\$21.6	\$ (.5)	\$ (.4)	\$ 4.6
Net (gain) loss reclassified from OCI to sales/cost of sales (effective portion)	.9	.8	—	—	—	—	.9	.8
Net (gain) loss reclassified from OCI to other income (expense), net (effective portion)	23.9	(5.9)	—	—	(8.0)	(5.1)	15.9	(11.0)
Net (gain) loss reclassified from OCI to interest expense (effective portion)	.1	(.8)	—	—	.6	.3	.7	(.5)
Net (gain) loss reclassified from OCI to other income (expense), net (ineffective portion)	.1	(.1)	—	—	—	—	.1	(.1)
<b>Fair Value Hedges:</b>								
Net gain (loss) recognized in interest expense <sup>(B)</sup>	\$ —	\$ —	\$ —	\$ —	\$ 4.5	\$ 1.0	\$ 4.5	\$ 1.0
<b>Net Investment Hedges, net of tax:</b>								
Net gain (loss) recognized in OCI	\$ 50.0	\$(6.7)	\$76.7	\$ 1.9	\$27.3	\$ 2.5	\$154.0	\$ (2.3)
<b>Derivatives Not Designated as Hedging Instruments:</b>								
Net gain (loss) recognized in other income (expense), net <sup>(C)</sup>	\$ (7.4)	\$ (.3)	\$ —	\$ —	\$ —	\$ .2	\$ (7.4)	\$ (.1)

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	Six Months Ended 31 March							
	Forward Exchange Contracts		Foreign Currency Debt		Other <sup>(A)</sup>		Total	
	2015	2014	2015	2014	2015	2014	2015	2014
<b>Cash Flow Hedges, net of tax:</b>								
Net gain (loss) recognized in OCI (effective portion)	\$ (46.0)	\$ 19.4	\$ —	\$ —	\$ 21.8	\$ (1.7)	\$ (24.2)	\$ 17.7
Net (gain) loss reclassified from OCI to sales/cost of sales (effective portion)	.3	1.0	—	—	—	—	.3	1.0
Net (gain) loss reclassified from OCI to other income, net (effective portion)	42.7	(18.6)	—	—	(13.2)	(3.7)	29.5	(22.3)
Net (gain) loss reclassified from OCI to interest expense (effective portion)	(.2)	(.8)	—	—	.9	.1	.7	(.7)
Net (gain) loss reclassified from OCI to other income, net (ineffective portion)	.6	(.7)	—	—	—	—	.6	(.7)
<b>Fair Value Hedges:</b>								
Net gain (loss) recognized in interest expense <sup>(B)</sup>	\$ —	\$ —	\$ —	\$ —	\$ 8.0	\$ (3.4)	\$ 8.0	\$ (3.4)
<b>Net Investment Hedges, net of tax:</b>								
Net gain (loss) recognized in OCI	\$ 70.1	\$ (16.6)	\$ 107.8	\$ (11.7)	\$ 37.4	\$ 7.6	\$ 215.3	\$ (20.7)
<b>Derivatives Not Designated as Hedging Instruments:</b>								
Net gain (loss) recognized in other income (expense), net <sup>(C)</sup>	\$ (7.2)	\$ (.2)	\$ —	\$ —	\$ —	\$ .2	\$ (7.2)	\$ —

<sup>(A)</sup> Other includes the impact on other comprehensive income (OCI) and earnings primarily related to interest rate and cross currency interest rate swaps.

<sup>(B)</sup> The impact of fair value hedges noted above was largely offset by gains and losses resulting from the impact of changes in related interest rates on recognized outstanding debt.

<sup>(C)</sup> The impact of the non-designated hedges noted above was largely offset by gains and losses resulting from the impact of changes in exchange rates on recognized assets and liabilities denominated in nonfunctional currencies.

The amount of cash flow hedges' unrealized gains and losses at 31 March 2015 that are expected to be reclassified to earnings in the next twelve months is not material.

The cash flows related to all derivative contracts are reported in the operating activities section of the consolidated statements of cash flows.

**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 \$5.0 as of 31 March 2015 and \$2.1 as of 30 September 2014. 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 financial 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 \$231.1 as of 31 March 2015 and \$107.8 as of 30 September 2014. No financial institution is required to post collateral at this time, as all have credit ratings at or above the threshold.

## 9. 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 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 methods and assumptions used to measure the fair value of financial instruments are as follows:

### Derivatives

The fair value of our interest rate management contracts and forward 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. Therefore, the fair value of our derivatives is classified as a level 2 measurement. On an ongoing basis, we randomly test a subset of our valuations against valuations received from the transaction's counterparty to validate the accuracy of our standard pricing models. Counterparties to these derivative contracts are highly rated financial institutions.

Refer to Note 8, Financial Instruments, for a description of derivative instruments, including details on the balance sheet line classifications.

### 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. Therefore, the fair value of our debt is classified as a level 2 measurement. We generally perform the computation of the fair value of these instruments.

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

	31 March 2015		30 September 2014	
	Carrying Value	Fair Value	Carrying Value	Fair Value
<b>Assets</b>				
Derivatives				
Forward exchange contracts	\$ 235.3	\$ 235.3	\$ 93.4	\$ 93.4
Interest rate management contracts	173.4	173.4	78.3	78.3
<b>Liabilities</b>				
Derivatives				
Forward exchange contracts	\$ 232.7	\$ 232.7	\$ 66.8	\$ 66.8
Interest rate management contracts	.1	.1	19.1	19.1
Long-term debt, including current portion	4,669.2	4,941.9	4,889.8	5,130.7

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.

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

	31 March 2015				30 September 2014			
	Total	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3
<b>Assets at Fair Value</b>								
Derivatives								
Forward exchange contracts	\$235.3	\$—	\$235.3	\$—	\$ 93.4	\$—	\$ 93.4	\$—
Interest rate management contracts	173.4	—	173.4	—	78.3	—	78.3	—
<b>Total Assets at Fair Value</b>	<b>\$408.7</b>	<b>\$—</b>	<b>\$408.7</b>	<b>\$—</b>	<b>\$171.7</b>	<b>\$—</b>	<b>\$171.7</b>	<b>\$—</b>
<b>Liabilities at Fair Value</b>								
Derivatives								
Forward exchange contracts	\$232.7	\$—	\$232.7	\$—	\$ 66.8	\$—	\$ 66.8	\$—
Interest rate management contracts	.1	—	.1	—	19.1	—	19.1	—
<b>Total Liabilities at Fair Value</b>	<b>\$232.8</b>	<b>\$—</b>	<b>\$232.8</b>	<b>\$—</b>	<b>\$ 85.9</b>	<b>\$—</b>	<b>\$ 85.9</b>	<b>\$—</b>

## 10. RETIREMENT BENEFITS

The components of net periodic benefit cost for the defined benefit pension and other postretirement benefit plans for the three and six months ended 31 March 2015 and 2014 were as follows:

	Pension Benefits				Other Benefits	
	2015		2014		2015	2014
	U.S.	International	U.S.	International		
Three Months Ended 31 March						
Service cost	\$ 10.6	\$ 7.9	\$ 10.6	\$ 9.0	\$ .7	\$ .8
Interest cost	31.3	14.2	32.7	16.9	.5	.6
Expected return on plan assets	(50.5)	(19.1)	(46.9)	(19.6)	—	—
Prior service cost amortization	.7	.1	.7	—	—	—
Actuarial loss amortization	19.6	10.1	19.6	8.9	.2	.5
Settlements and curtailments	15.7	—	—	.5	—	—
Special termination benefits	2.1	.9	—	—	—	—
Other	—	.5	—	.5	—	—
<b>Net periodic benefit cost</b>	<b>\$ 29.5</b>	<b>\$ 14.6</b>	<b>\$ 16.7</b>	<b>\$ 16.2</b>	<b>\$ 1.4</b>	<b>\$ 1.9</b>

	Pension Benefits				Other Benefits	
	2015		2014		2015	2014
	U.S.	International	U.S.	International		
Six Months Ended 31 March						
Service cost	\$ 21.2	\$ 16.1	\$ 21.3	\$ 17.8	\$ 1.4	\$ 1.6
Interest cost	62.5	29.2	65.4	33.5	1.1	1.2
Expected return on plan assets	(101.0)	(40.2)	(93.9)	(38.8)	—	—
Prior service cost amortization	1.4	.1	1.4	.1	—	—
Actuarial loss amortization	39.4	20.6	39.2	17.7	.4	.9
Settlements and curtailments	15.6	(.1)	—	.5	—	—
Special termination benefits	4.8	.9	.2	—	—	—
Other	1.1	1.0	—	1.0	—	—
<b>Net periodic benefit cost</b>	<b>\$ 45.0</b>	<b>\$ 27.6</b>	<b>\$ 33.6</b>	<b>\$ 31.8</b>	<b>\$ 2.9</b>	<b>\$ 3.7</b>

Net periodic benefit cost is primarily included in cost of sales, selling and administrative expense, and pension settlement loss on our consolidated income statements. The amount of net periodic benefit cost capitalized in 2015 and 2014 was not material.

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Our U.S. supplemental pension plan provides for a lump sum benefit payment option at the time of retirement, or for corporate officers, six months after their retirement date. Pension settlements are immediately recognized when cash payments exceed the sum of the service and interest cost components of net periodic pension cost of the plan for the fiscal year. The participant's vested benefit is considered settled upon cash payment of the lump sum. For the three months ended 31 March 2015, we recognized a pension settlement charge of \$12.6 to accelerate recognition of a portion of actuarial losses deferred in accumulated other comprehensive loss associated with the U.S. supplemental pension plan.

Special termination benefits for the three and six months ended 31 March 2015 are \$3.0 and \$5.7 respectively, related to the business restructuring and cost reduction actions. In addition, curtailment losses related to the U.S. Supplementary pension plan of \$3.1 are also reflected in the business restructuring and cost reduction actions charge.

For the six months ended 31 March 2015 and 2014, our cash contributions to funded pension plans and benefit payments under unfunded pension plans were \$95.4 and \$43.9, respectively. Total contributions for fiscal 2015 are expected to be approximately \$130.0 to \$150.0. During fiscal 2014, total contributions were \$78.2.

## **11. 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 \$56 at 31 March 2015) 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 with the Brazilian courts. On 6 May 2014, our appeal was granted and the fine against Air Products Brasil Ltda. was dismissed. CADE has appealed that ruling and the matter remains pending. 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 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 \$56 at 31 March 2015) plus interest accrued thereon until final disposition of the proceedings.

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 material 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**

In the normal course of business, we are involved in legal proceedings under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA: the federal Superfund law); Resource Conservation and Recovery Act (RCRA); and similar state and foreign environmental laws relating to the designation of certain sites for investigation or remediation. Presently, there are approximately 36 sites on which a final settlement has not been reached where we, along with others, have been designated a potentially responsible party by the Environmental Protection Agency or are otherwise engaged in investigation or remediation, including cleanup activity at certain of our current and former manufacturing sites. We continually monitor these sites for which we have environmental exposure.

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 March 2015 and 30 September 2014 included an accrual of \$83.6 and \$86.2, 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 \$83 to a reasonably possible upper exposure of \$97 as of 31 March 2015.

Actual costs to be incurred at identified sites in future periods may vary from the estimates, given inherent uncertainties in evaluating environmental exposures. Using reasonably possible alternative assumptions of the exposure level could result in an increase to the environmental accrual. Due to the inherent uncertainties related to environmental exposures, a significant increase to the reasonably possible upper exposure level could occur if a new site is designated, the scope of remediation is increased, a different remediation alternative is identified, or a significant increase in our proportionate share occurs. We do not expect that any sum we may have to pay in connection with environmental matters in excess of the amounts recorded or disclosed above would have a material adverse impact on our financial position or results of operations in any one year.

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### PACE

At 31 March 2015, \$31.5 of the environmental accrual was related to the Pace facility.

In 2006, we sold our Amines business, which included operations at Pace, Florida and recognized a liability for retained environmental obligations associated with remediation activities at Pace. We are required by the Florida Department of Environmental Protection (FDEP) and the United States Environmental Protection Agency (USEPA) to continue our remediation efforts. We estimated that it would take 20 years to complete the groundwater remediation, and the costs through completion were estimated to range from \$42 to \$52. As no amount within the range was a better estimate than another, we recognized a pretax expense in fiscal 2006 of \$42 as a component of income from discontinued operations and recorded an environmental accrual of \$42 in continuing operations on the consolidated balance sheets. There has been no change to the estimated exposure range related to the Pace facility.

We have implemented many of the remedial corrective measures at the Pace facility required under 1995 Consent Orders issued by the FDEP and the USEPA. Contaminated soils have been bioremediated, and the treated soils have been secured in a lined on-site disposal cell. Several groundwater recovery systems have been installed to contain and remove contamination from groundwater. We completed an extensive assessment of the site to determine how well existing measures are working, what additional corrective measures may be needed, and whether newer remediation technologies that were not available in the 1990s might be suitable to more quickly and effectively remove groundwater contaminants. Based on assessment results, we completed a focused feasibility study that has identified alternative approaches that may more effectively remove contaminants. We continue to review alternative remedial approaches with the FDEP. In the first quarter of 2015, we entered into a new Consent Order with the FDEP requiring us to continue our remediation efforts at the Pace facility. We expect the costs we will incur under the new Consent Order to be consistent with our previous estimates.

### PIEDMONT

At 31 March 2015, \$18.4 of the environmental accrual was related to the Piedmont site.

On 30 June 2008, we sold our Elkton, Maryland and Piedmont, South Carolina production facilities and the related North American atmospheric emulsions and global pressure sensitive adhesives businesses. In connection with the sale, we recognized a liability for retained environmental obligations associated with remediation activities at the Piedmont site. This site is under active remediation for contamination caused by an insolvent prior owner. We are required by the South Carolina Department of Health and Environmental Control to address both contaminated soil and groundwater. Numerous areas of soil contamination have been addressed, and contaminated groundwater is being recovered and treated. We estimate that it will take until 2017 to complete source area remediation and another 15 years thereafter to complete groundwater recovery, with costs through completion estimated to be \$24. We recognized a pretax expense in 2008 of \$24 as a component of income from discontinued operations and recorded an environmental liability of \$24 in continuing operations on the consolidated balance sheets. There has been no change to the estimated exposure.

### PASADENA

At 31 March 2015, \$12.0 of the environmental accrual was related to the Pasadena site.

During the fourth quarter of 2012, management committed to permanently shutting down our polyurethane intermediates (PUI) production facility in Pasadena, Texas. In shutting down and dismantling the facility, we have undertaken certain obligations related to soil and groundwater contaminants. We have been pumping and treating groundwater to control off-site contaminant migration in compliance with regulatory requirements and under the approval of the Texas Commission on Environmental Quality (TCEQ). We estimate that the pump and treat system will continue to operate until 2042. We plan to perform additional work to address other environmental obligations at the site. This additional work includes investigating solid waste management units, remediating as required impacted soils, performing post closure care for two closed RCRA surface impoundment units and establishing engineering controls. In 2012, we estimated the total exposure at this site to be \$13. There has been no change to the estimated exposure.

## 12. SHARE-BASED COMPENSATION

We have various share-based compensation programs, which include deferred stock units, stock options, and restricted stock. Under all programs, the terms of the awards are fixed at the grant date. We issue shares from treasury stock upon the payout of deferred stock units, the exercise of stock options, and the issuance of restricted stock awards. As of 31 March 2015, there were 5,085,893 shares available for future grant under our Long-Term Incentive Plan, which is shareholder approved.

Share-based compensation cost recognized in the consolidated income statements is summarized below:

	Three Months Ended 31 March		Six Months Ended 31 March	
	2015	2014	2015	2014
Before-Tax Share-Based Compensation Cost	\$12.9	\$11.6	\$24.8	\$23.4
Income Tax Benefit	(4.7)	(3.9)	(8.7)	(8.2)
After-Tax Share-Based Compensation Cost	\$ 8.2	\$ 7.7	\$16.1	\$15.2

Before-tax share-based compensation cost is primarily included in selling and administrative expense on our consolidated income statements. The amount of share-based compensation cost capitalized in 2015 and 2014 was not material.

### Deferred Stock Units

During the six months ended 31 March 2015, we granted 116,111 market-based deferred stock units. The market-based deferred stock units vest as long as the employee continues to be employed by the Company and upon the achievement of the performance target. The performance target, which is approved by the Compensation Committee, is the Company's relative total shareholder return in relation to a defined peer group over the three year performance period beginning 1 October 2014 and ending 30 September 2017.

The market-based deferred stock units had an estimated grant-date fair value of \$194.51 per unit. The grant-date fair value was estimated using a Monte Carlo simulation model as these equity awards were tied to a market condition. The model utilizes multiple input variables that determine the probability of satisfying the market condition stipulated in the grant and calculates the fair value of the awards. We generally expense the grant-date fair value of these awards on a straight line basis over the vesting period. The calculation of the fair value of market-based deferred stock units used the following assumptions:

Expected volatility	19.6%
Risk-free interest rate	.9%
Expected dividend yield	2.5%

In addition, during the six months ended 31 March 2015, we granted 136,574 time-based deferred stock units at a weighted-average grant-date fair value of \$144.26.

### Stock Options

During the six months ended 31 March 2015, we granted 175,829 stock options at a weighted-average exercise price of \$144.09 and an estimated fair value of \$37.19 per option. The fair value of these options was estimated using a Black-Scholes option valuation model that used the following assumptions:

Expected volatility	30.3%
Expected dividend yield	2.6%
Expected life (in years)	7.5
Risk-free interest rate	2.2%

### Restricted Stock

During the six months ended 31 March 2015, we issued 19,691 restricted shares at a weighted-average grant-date fair value of \$144.09.

### 13. EQUITY

The following is a summary of the changes in total equity:

	Three Months Ended 31 March					
	2015			2014		
	Air Products	Non-controlling Interests	Total Equity	Air Products	Non-controlling Interests	Total Equity
Balance at 31 December	\$7,351.5	\$151.8	\$7,503.3	\$7,264.0	\$158.7	\$7,422.7
Net income <sup>(A)</sup>	290.0	6.9	296.9	283.5	7.3	290.8
Other comprehensive income (loss)	(191.5)	.6	(190.9)	(67.7)	(3.5)	(71.2)
Dividends on common stock (per share \$.81, \$.77)	(173.9)	—	(173.9)	(163.4)	—	(163.4)
Dividends to noncontrolling interests	—	(13.1)	(13.1)	—	(5.6)	(5.6)
Share-based compensation	12.9	—	12.9	11.6	—	11.6
Issuance of treasury shares for stock option and award plans	32.8	—	32.8	34.7	—	34.7
Tax benefit of stock option and award plans	9.4	—	9.4	9.2	—	9.2
Other equity transactions	1.3	(2.4)	(1.1)	(1.0)	—	(1.0)
Balance at 31 March	\$7,332.5	\$143.8	\$7,476.3	\$7,370.9	\$156.9	\$7,527.8

	Six Months Ended 31 March					
	2015			2014		
	Air Products	Non-controlling Interests	Total Equity	Air Products	Non-controlling Interests	Total Equity
Balance at 30 September	\$7,365.8	\$155.6	\$7,521.4	\$7,042.1	\$156.8	\$7,198.9
Net income <sup>(A)</sup>	614.6	14.4	629.0	573.7	14.9	588.6
Other comprehensive loss	(420.2)	(4.5)	(424.7)	(14.0)	(4.6)	(18.6)
Dividends on common stock (per share \$1.58, \$1.48)	(339.3)	—	(339.3)	(313.7)	—	(313.7)
Dividends to noncontrolling interests	—	(19.3)	(19.3)	—	(10.2)	(10.2)
Share-based compensation	24.8	—	24.8	23.4	—	23.4
Issuance of treasury shares for stock option and award plans	62.9	—	62.9	47.9	—	47.9
Tax benefit of stock option and award plans	22.9	—	22.9	14.0	—	14.0
Purchase of noncontrolling interests	—	—	—	(.5)	—	(.5)
Other equity transactions	1.0	(2.4)	(1.4)	(2.0)	—	(2.0)
Balance at 31 March	\$7,332.5	\$143.8	\$7,476.3	\$7,370.9	\$156.9	\$7,527.8

<sup>(A)</sup> Net income attributable to noncontrolling interests excludes net income related to redeemable noncontrolling interests, which is not included in total equity. Refer to Note 15, Noncontrolling Interests, for additional information.

## 14. ACCUMULATED OTHER COMPREHENSIVE LOSS

The table below summarizes changes in accumulated other comprehensive loss (AOCL), net of tax, attributable to Air Products for the three and six months ended 31 March 2015:

	Net loss on derivatives qualifying as hedges	Foreign currency translation adjustments	Pension and postretirement benefits	Total
Balance at 31 December 2014	\$ (38.9)	\$ (507.9)	\$ (923.8)	\$ (1,470.6)
Other comprehensive loss before reclassifications	(.4)	(232.1)	(4.6)	(237.1)
Amounts reclassified from AOCL	17.6	—	28.6	46.2
Net current period other comprehensive income (loss)	\$ 17.2	\$ (232.1)	\$ 24.0	\$ (190.9)
Amount attributable to noncontrolling interest	—	.6	—	.6
Balance at 31 March 2015	\$ (21.7)	\$ (740.6)	\$ (899.8)	\$ (1,662.1)

	Net loss on derivatives qualifying as hedges	Foreign currency translation adjustments	Pension and postretirement benefits	Total
Balance at 30 September 2014	\$ (28.5)	\$ (268.7)	\$ (944.7)	\$ (1,241.9)
Other comprehensive loss before reclassifications	(24.2)	(476.5)	(4.6)	(505.3)
Amounts reclassified from AOCL	31.1	—	49.5	80.6
Net current period other comprehensive income (loss)	\$ 6.9	\$ (476.5)	\$ 44.9	\$ (424.7)
Amount attributable to noncontrolling interest	.1	(4.6)	—	(4.5)
Balance at 31 March 2015	\$ (21.7)	\$ (740.6)	\$ (899.8)	\$ (1,662.1)

The table below summarizes the reclassifications out of accumulated other comprehensive loss and the affected line item on the consolidated income statements:

	Three Months Ended 31 March		Six Months Ended 31 March	
	2015	2014	2015	2014
(Gain) Loss on Cash Flow Hedges, net of tax				
Sales/Cost of sales	\$ .9	\$ .8	\$ .3	\$ 1.0
Other income (expense), net	16.0	(11.1)	30.1	(23.0)
Interest expense	.7	(.5)	.7	(.7)
Total (Gain) Loss on Cash Flow Hedges, net of tax	\$ 17.6	\$ (10.8)	\$ 31.1	\$ (22.7)
Pension and Postretirement Benefits, net of tax <sup>(A)</sup>	\$ 28.6	\$ 20.6	\$ 49.5	\$ 40.6

<sup>(A)</sup> The components include items such as prior service cost amortization, actuarial loss amortization, and settlements and are reflected in net periodic benefit cost. Refer to Note 10, Retirement Benefits.

## 15. NONCONTROLLING INTERESTS

### INDURA S.A.

#### Redeemable Noncontrolling Interest

In 2012, we purchased a 64.8% controlling equity interest in the outstanding shares of Indura S.A. As part of the purchase agreement, the largest minority shareholder in Indura S.A. has the right to exercise a put option to require us to purchase up to a 30.5% equity interest during the two-year period beginning on 1 July 2015, at a redemption value equal to the greater of fair market value or the acquisition date value escalated by an inflation factor (the “floor value”). The put option is not accounted for separate from the minority interest shares that are subject to the put option. The redemption feature of the put option requires classification of the minority shareholder’s interest in the consolidated balance sheet outside of equity under the caption “Redeemable Noncontrolling Interest.”

Adjustments to the value of the redeemable noncontrolling interest due to the redemption feature are recognized as they occur. Currently, the floor value of the redemption feature is in excess of the fair value of the minority interest shares. Because the value of the redeemable noncontrolling interest cannot be less than the floor value, the attribution of net income between Air Products and the minority shareholders is adjusted so that the value of the redeemable noncontrolling interest is not less than the floor value.

The following is a summary of the changes in redeemable noncontrolling interest for the three and six months ended 31 March:

	Three Months Ended 31 March	
	2015	2014
Balance at 31 December	\$288.7	\$358.7
Net income	—	.7
Currency translation adjustment	(8.7)	(15.8)
Balance at 31 March	\$280.0	\$343.6

  

	Six Months Ended 31 March	
	2015	2014
Balance at 30 September	\$287.2	\$375.8
Net income	5.4	2.0
Dividends	—	(3.5)
Currency translation adjustment	(12.6)	(30.7)
Balance at 31 March	\$280.0	\$343.6

As of 31 March 2015, we have a 67.3% controlling equity interest in Indura S.A.

## 16. EARNINGS PER SHARE

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

	Three Months Ended 31 March		Six Months Ended 31 March	
	2015	2014	2015	2014
<b>Numerator</b>				
Income from continuing operations	\$290.0	\$283.5	\$614.6	\$570.6
Income from discontinued operations	—	—	—	3.1
Net Income Attributable to Air Products	\$290.0	\$283.5	\$614.6	\$573.7
<b>Denominator (in millions)</b>				
Weighted average number of common shares – Basic	214.9	212.4	214.5	212.1
Effect of dilutive securities				
Employee stock option and other award plans	2.5	2.5	2.5	2.5
Weighted average number of common shares – Diluted	217.4	214.9	217.0	214.6
<b>Basic EPS Attributable to Air Products</b>				
Income from continuing operations	\$ 1.35	\$ 1.33	\$ 2.87	\$ 2.69
Income from discontinued operations	—	—	—	.01
Net Income Attributable to Air Products	\$ 1.35	\$ 1.33	\$ 2.87	\$ 2.70
<b>Diluted EPS Attributable to Air Products</b>				
Income from continuing operations	\$ 1.33	\$ 1.32	\$ 2.83	\$ 2.66
Income from discontinued operations	—	—	—	.01
Net Income Attributable to Air Products	\$ 1.33	\$ 1.32	\$ 2.83	\$ 2.67

Outstanding share-based awards of .2 million and .3 million shares were antidilutive and therefore excluded from the computation of diluted earnings per share for the three and six months ended 31 March 2015, respectively. Outstanding share-based awards of .8 million shares were antidilutive and therefore excluded from the computation of diluted earnings per share for the three and six months ended 31 March 2014.

## 17. SUPPLEMENTAL INFORMATION

On 12 February 2015, we issued a 1.0% Eurobond for €300 million (\$335.3) that matures on 12 February 2025. The proceeds were used to repay a 3.875% Eurobond of €300 million (\$335.9) that matured on 10 March 2015.

## 18. BUSINESS SEGMENT INFORMATION

The Company began operating under a new structure effective 1 October 2014. Our new reporting segments reflect the manner in which our chief operating decision maker reviews results and allocates resources. Except in the Corporate and other segment, each reporting segment meets the definition of an operating segment and does not include the aggregation of multiple operating segments. Our liquefied natural gas (LNG) and helium storage and distribution sale of equipment businesses are aggregated within the Corporate and other segment. The prior year information presented has been restated to conform with the fiscal year 2015 presentation.

The new reporting segments are:

- Industrial Gases – Americas
- Industrial Gases – EMEA (Europe, Middle East, and Africa)
- Industrial Gases – Asia
- Industrial Gases – Global
- Materials Technologies
- Energy-from-Waste
- Corporate and other

### Industrial Gases – Regional

The regional Industrial Gases (Americas, EMEA, Asia) segments include the results of our regional industrial gas businesses, which produce and sell atmospheric gases such as oxygen, nitrogen, and argon (primarily recovered by the cryogenic distillation of air) and process gases such as hydrogen, carbon monoxide, helium, syngas, and specialty gases. We supply gases to customers in many industries, including those in metals, glass, chemical processing, energy production and refining, food processing, metallurgical industries, medical, and general manufacturing. We distribute gases to our customers through a variety of supply modes including liquid or gaseous bulk supply delivered by tanker or tube trailer and, for smaller customers, packaged gases delivered in cylinders and dewars or small on-sites (cryogenic or noncryogenic generators). For large-volume customers, we construct an on-site plant adjacent to or near the customer's facility or deliver product from one of our pipelines. We are the world's largest provider of hydrogen, which is used by refiners to facilitate the conversion of heavy crude feedstock and lower the sulfur content of gasoline and diesel fuels.

Electricity is the largest cost component in the production of atmospheric gases, and natural gas is the principal raw material for hydrogen, carbon monoxide, and syngas production. We mitigate energy and natural gas prices contractually through pricing formulas, surcharges, and cost pass-through arrangements. The regional Industrial Gases segments also include our share of the results of several joint ventures accounted for by the equity method. The largest of these joint ventures operate in Mexico, Italy, South Africa, India, Saudi Arabia, and Thailand. Each of the regional Industrial Gases segments competes against global industrial gas companies as well as regional competitors. Competition is based primarily on price, reliability of supply, and the development of industrial gas applications. We derive a competitive advantage in locations where we have pipeline networks, which enable us to provide reliable and economic supply of products to larger customers.

### Industrial Gases – Global

The Industrial Gases – Global segment includes cryogenic and gas processing equipment sales for air separation. The equipment is sold worldwide to customers in a variety of industries, including chemical and petrochemical manufacturing, oil and gas recovery and processing, and steel and primary metals processing. The Industrial Gases – Global segment also includes centralized global costs associated with management of all the Industrial Gases segments. These costs include Industrial Gases global administrative costs, product development costs, and research and development costs. We compete with a large number of firms for all the offerings included in the Industrial Gases – Global segment. Competition in the equipment businesses is based primarily on technological performance, service, technical know-how, price, and performance guarantees.

### Materials Technologies

The Materials Technologies segment includes applications technology to make products that provide solutions to a broad range of global industries through chemical synthesis, analytical technology, process engineering, and surface science. This segment provides specialty gases, specialty chemicals, services, and equipment to the electronics industry primarily for the manufacture of silicon and compound semiconductors as well as liquid crystal (LCD) and other displays. The Materials Technologies segment also provides performance chemical solutions for the coatings, inks, adhesives, civil engineering, personal care, institutional and industrial cleaning, mining, oil field, polyurethane, and other industries. We compete in the businesses included in the Materials Technologies segment on a product-by-product basis against companies ranging from niche suppliers with a single product to large, vertically integrated companies. Competition is principally conducted on the basis of product performance, price, quality, reliability of product supply, technical innovation, service, and global infrastructure.

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### Energy-from-Waste

The Energy-from-Waste segment consists of two projects that are under construction in Tees Valley, United Kingdom. Once operational, these projects will process waste materials and generate renewable power for customers under long-term contracts.

### Corporate and other

The Corporate and other segment includes two on-going global businesses (our LNG sale of equipment business and our helium storage and distribution vessel sale of equipment business), the polyurethane intermediates business that was exited in early fiscal year 2014, and corporate support functions that benefit all the segments. Competition for the two sale of equipment businesses is based primarily on technological performance, service, technical know-how, price, and performance guarantees.

### Business Segment

	Industrial Gases– Americas	Industrial Gases– EMEA	Industrial Gases– Asia	Industrial Gases– Global	Materials Technologies	Energy- from- Waste	Corporate and other	Segment Total
<b>Three Months Ended 31 March 2015</b>								
Sales	\$ 890.4	\$ 448.8	\$ 393.0	\$ 67.1	\$ 533.3	\$ —	\$ 81.9	\$ 2,414.5
Operating income (loss)	182.0	71.0	84.7	(7.9)	124.2	(2.8)	(8.8)	442.4
Depreciation and amortization	103.3	47.6	50.3	5.5	23.3	—	3.3	233.3
Equity affiliates' income (loss)	15.1	8.0	9.4	(.2)	.7	—	—	33.0
<b>Three Months Ended 31 March 2014</b>								
Sales	\$1,032.9	\$ 542.7	\$ 365.7	\$ 68.4	\$ 499.6	\$ —	\$ 72.6	\$ 2,581.9
Operating income (loss)	169.6	87.5	71.2	(14.6)	93.8	(3.5)	(19.3)	384.7
Depreciation and amortization	99.4	55.0	48.1	1.6	22.7	—	2.3	229.1
Equity affiliates' income	12.6	9.3	7.6	.3	.6	—	—	30.4
<b>Six Months Ended 31 March 2015</b>								
Sales	\$1,893.4	\$ 949.6	\$ 791.7	\$126.1	\$1,057.3	\$ —	\$ 157.2	\$ 4,975.3
Operating income (loss)	393.2	152.3	175.2	(25.8)	228.8	(5.3)	(31.5)	886.9
Depreciation and amortization	206.9	98.7	99.9	9.8	47.3	—	6.2	468.8
Equity affiliates' income	32.3	18.3	24.0	.2	1.3	—	—	76.1
<b>Six Months Ended 31 March 2014</b>								
Sales	\$1,976.8	\$1,092.6	\$ 761.0	\$135.6	\$ 979.1	\$ —	\$ 182.3	\$ 5,127.4
Operating income (loss)	354.1	172.7	153.9	(24.9)	158.1	(6.4)	(37.2)	770.3
Depreciation and amortization	203.4	109.9	94.5	3.3	47.2	—	5.0	463.3
Equity affiliates' income	30.2	19.0	17.2	1.0	1.2	—	—	68.6
<b>Total Assets</b>								
31 March 2015	\$6,074.5	\$3,131.6	\$4,174.3	\$338.8	\$1,801.2	\$724.8	\$1,248.6	\$17,493.8
30 September 2014	6,240.7	3,521.0	4,045.6	389.4	1,835.7	591.9	1,154.8	17,779.1

The sales information noted above relates to external customers only. All intersegment sales are eliminated in consolidation. For the three and six months ended 31 March 2015, the Industrial Gases – Global segment had intersegment sales of \$54.1 and \$113.7, respectively. For the three and six months ended 31 March 2014, the Industrial Gases – Global segment had intersegment sales of \$48.4 and \$89.7, respectively. These sales are generally transacted at market pricing. For all other segments, intersegment sales are not material for all periods presented. Equipment manufactured for our industrial gases segments are generally transferred at cost and not reflected as an intersegment sale.

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Below is a reconciliation of segment total operating income to consolidated operating income:

<b>Operating Income</b>	Three Months Ended 31 March		Six Months Ended 31 March	
	2015	2014	2015	2014
Segment total	\$442.4	\$384.7	\$886.9	\$770.3
Business restructuring and cost reduction actions	(55.4)	—	(87.8)	—
Pension settlement loss	(12.6)	—	(12.6)	—
Gain on previously held equity interest	—	—	17.9	—
<b>Consolidated Total</b>	<b>\$374.4</b>	<b>\$384.7</b>	<b>\$804.4</b>	<b>\$770.3</b>

## 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 2014 Form 10-K. An analysis of results for the second quarter and first six months of 2015 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.

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

The discussion of results that follows includes comparisons of non-GAAP financial measures. For 2015, the non-GAAP measures exclude: business reorganization and cost reduction charges, pension settlement losses, and the gain on the previously held equity interest. Included in these non-GAAP measures is Adjusted EBITDA, which we believe to be a useful metric to assess operating performance. 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 performance. The reconciliation of reported GAAP results to non-GAAP measures is presented on pages 41-43. Descriptions of the excluded items appear on pages 28-29 and 35-36.

### SECOND QUARTER 2015 VS. SECOND QUARTER 2014

#### SECOND QUARTER 2015 IN SUMMARY

- Sales of \$2,414.5 decreased 6%, or \$167.4, as underlying sales growth of 5% was more than offset by an unfavorable currency impact of 5% and lower energy contractual pass-through to customers of 6%. The increase in underlying sales primarily resulted from higher volumes in the Industrial Gases – Asia and Materials Technologies segments.
- Operating income of \$374.4 decreased 3%, or \$10.3, and operating margin of 15.5% increased 60 basis points (bp). On a non-GAAP basis, operating income of \$442.4 increased 15%, or \$57.7, and operating margin of 18.3% increased 340 bp, primarily due to higher volumes and higher pricing.
- Adjusted EBITDA of \$708.7 increased 10%, or \$64.5, primarily due to higher volumes and higher pricing. Adjusted EBITDA margin of 29.4% increased 440 bp.
- Net income of \$290.0 increased 2%, or \$6.5, and diluted earnings per share of \$1.33 increased 1%, or \$.01. On a non-GAAP basis, net income of \$336.1 increased 19%, or \$52.6, and diluted earnings per share of \$1.55 increased 17%, or \$.23. A summary table of changes in diluted earnings per share is presented below.
- We increased our quarterly dividend by 5% from \$.77 to \$.81 per share. This represents the 33<sup>rd</sup> consecutive year that we increased our dividend payment.

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**Changes in Diluted Earnings per Share Attributable to Air Products – Non-GAAP Basis**

	Three Months Ended 31 March		Increase (Decrease)
	2015	2014	
<b>Diluted Earnings per Share – GAAP Basis</b>	<b>\$1.33</b>	<b>\$1.32</b>	<b>\$ .01</b>
Business restructuring and cost reduction actions	.18	—	.18
Pension settlement loss	.04	—	.04
<b>Diluted Earnings per Share – Non-GAAP Basis</b>	<b>\$1.55</b>	<b>\$1.32</b>	<b>\$ .23</b>
<b>Operating Income (after-tax)</b>			
Underlying business			
Volume			\$ .22
Price/raw materials			.10
Costs			(.02)
Currency			(.09)
<b>Operating Income</b>			<b>\$ .21</b>
<b>Other (after-tax)</b>			
Equity affiliates' income			\$ .01
Interest expense			.03
Weighted average diluted shares			(.02)
Other			\$ .02
<b>Total Change in Diluted Earnings per Share – Non-GAAP Basis</b>			<b>\$ .23</b>

**RESULTS OF OPERATIONS**

**Discussion of Consolidated Results**

	Three Months Ended 31 March		\$ Change	Change
	2015	2014		
Sales	\$2,414.5	\$2,581.9	\$(167.4)	(6)%
Operating income	374.4	384.7	(10.3)	(3)%
Operating margin	15.5%	14.9%		60bp
Equity affiliates' income	33.0	30.4	2.6	9%
<b>Non-GAAP Basis</b>				
Adjusted EBITDA	\$ 708.7	\$ 644.2	\$ 64.5	10%
Adjusted EBITDA margin	29.4%	25.0%		440bp
Operating income	442.4	384.7	57.7	15%
Operating margin	18.3%	14.9%		340bp

**Sales**

	% Change from Prior Year
Underlying business	
Volume	4%
Price	1%
Currency	(5)%
Energy and raw material cost pass-through	(6)%
<b>Total Consolidated Change</b>	<b>(6)%</b>

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Underlying sales were up 5% from higher volumes of 4% and higher pricing of 1%. Volumes increased primarily from growth in the Industrial Gases – Asia and Materials Technologies segments. The favorable pricing was driven by price increases across the Materials Technologies, Industrial Gases – Americas, and Industrial Gases – EMEA segments. Currency unfavorably impacted sales by 5%, and lower energy contractual cost pass-through to customers decreased sales by 6%.

### **Operating Income and Margin**

Operating income of \$374.4 decreased 3%, or \$10.3, as higher volumes of \$63 and favorable pricing net of energy and distribution costs of \$26 were more than offset by charges associated with the business restructuring and cost reduction actions of \$55, unfavorable currency impacts of \$27, a pension settlement loss of \$13, and unfavorable other income and favorable operating costs that netted to \$4. Operating costs were lower as benefits from our recent cost reduction actions and lower maintenance expense were mostly offset by higher incentive compensation. Incentive compensation was approximately \$45 higher due to a year-to-date adjustment this quarter for improved results while the prior year reflected a year-to-date adjustment to reduce expense on lower performance.

On a non-GAAP basis, operating income of \$442.4 increased 15%, or \$57.7, and operating margin of 18.3% increased 340 bp, primarily due to higher volumes and higher pricing, partially offset by unfavorable currency impacts.

### **Adjusted EBITDA**

We define Adjusted EBITDA as income from continuing operations (including noncontrolling interests) excluding certain disclosed items, which the Company does not believe to be indicative of underlying business trends, before interest expense, income tax provision, and depreciation and amortization expense. Adjusted EBITDA provides a useful metric for management to assess operating performance.

Adjusted EBITDA of \$708.7 increased 10%, or \$64.5, primarily due to higher volumes and higher pricing, partially offset by unfavorable currency impacts. Adjusted EBITDA margin of 29.4% increased 440 bp.

### **Equity Affiliates' Income**

Income from equity affiliates of \$33.0 increased \$2.6, primarily due to better performance in our Industrial Gases – Americas and Industrial Gases – Asia affiliates.

### **Cost of Sales and Gross Margin**

Cost of sales of \$1,699.6 decreased \$218, primarily due to lower energy costs of \$138, a favorable currency impact of \$100, and lower operating costs of \$22, partially offset by costs attributable to higher sales volumes of \$42. Operating costs included favorable impacts from restructuring actions and lower maintenance partially offset by higher incentive compensation.

Gross margin of 29.6% increased 390 bp, primarily due to favorable costs, including energy pass-through, of 180 bp, higher volumes of 140 bp, and higher price, net of raw materials, of 80 bp.

### **Selling and Administrative Expense**

Selling and administrative expense of \$240.9 decreased \$22.5, primarily due to the benefits of our recent cost reduction actions of \$22 and favorable currency effects of \$16, partially offset by higher other costs of \$16, including incentive compensation. Selling and administrative expense, as a percent of sales, decreased from 10.2% to 10.0%.

### **Research and Development**

Research and development expense of \$36.3 increased \$3.1 due to higher operating costs. Research and development expense, as a percent of sales, was 1.5% and 1.3% in 2015 and 2014, respectively.

### **Business Restructuring and Cost Reduction Actions**

On 18 September 2014, we announced plans to reorganize the Company, including realignment of our businesses in new reporting segments and other organizational changes, effective as of 1 October 2014. As a result of this reorganization, we incurred severance and other charges of \$55.4 (\$38.2 after-tax, or \$.18 per share) during the three months ended 31 March 2015. We will continue to incur severance and other charges in future periods. Refer to Note 4, Business Restructuring and Cost Reduction Actions, for additional details.

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### **Pension Settlement Losses**

Our U.S. supplemental pension plan provides for a lump sum benefit payment option at the time of retirement, or for corporate officers, six months after their retirement date. Pension settlements are immediately recognized when cash payments exceed the sum of the service and interest cost components of net periodic pension cost of the plan for the fiscal year. The participant's vested benefit is considered settled upon cash payment of the lump sum. For the three months ended 31 March 2015, we recognized a pension settlement charge of \$12.6 (\$7.9 after-tax, or \$.04 per share) to accelerate recognition of a portion of actuarial losses deferred in accumulated other comprehensive loss associated with the U.S. supplemental pension plan.

### **Other Income (Expense), Net**

Other income (expense), net of \$4.7 decreased \$12.3, partially due to unfavorable foreign exchange impacts and lower gains from the sale of assets and emissions credits. No other individual items were significant in comparison to the prior year.

### **Interest Expense**

	Three Months Ended 31 March	
	2015	2014
Interest incurred	\$35.5	\$39.4
Less: capitalized interest	12.1	7.9
Interest expense	\$23.4	\$31.5

Interest incurred decreased \$3.9. The decrease was driven primarily by the impact of a stronger U.S. dollar on the translation of foreign currency interest and a lower average interest rate on the debt portfolio, partially offset by a higher average debt balance. The change in capitalized interest was driven by an increase in projects under construction.

### **Effective Tax Rate**

The effective tax rate equals the income tax provision divided by income from continuing operations before taxes. The effective tax rate was 22.7% and 24.0% in the second quarter of 2015 and 2014, respectively. During the three months ended 31 March 2015, the impacts of the business restructuring and cost reduction actions and the pension settlement loss decreased our effective tax rate by 140 bp. On a non-GAAP basis, the effective tax rate was 24.1% and 24.0% in 2015 and 2014, respectively.

### **Segment Analysis**

#### **Industrial Gases – Americas**

	Three Months Ended 31 March		\$ Change	% Change
	2015	2014		
Sales	\$890.4	\$1,032.9	\$(142.5)	(14)%
Operating income	182.0	169.6	12.4	7%
Operating margin	20.4%	16.4%		400bp
Equity affiliates' income	15.1	12.6	2.5	20%
Adjusted EBITDA	300.4	281.6	18.8	7%
Adjusted EBITDA margin	33.7%	27.3%		640bp

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**Industrial Gases – Americas Sales**

	% Change from Prior Year
Underlying business	
Volume	1%
Price	1%
Currency	(3)%
Energy and raw material cost pass-through	(13)%
<b>Total Industrial Gases – Americas Sales Change</b>	<b>(14)%</b>

Underlying sales increased 2% with higher volumes and higher pricing both contributing 1%. Volumes were modestly higher in North America due to growth in liquid oxygen, nitrogen, and argon and improved gaseous hydrogen volumes due to fewer outages but were mostly offset by lower helium volumes. In Latin America, volumes were flat due to continued economic weakness. Pricing was higher due to general price increases and inflation recovery. Lower energy contractual cost pass-through to customers, primarily related to natural gas, decreased sales by 13%. In addition, currency reduced sales by 3% due to the weakening of the Chilean Peso, Brazilian Real, and Canadian Dollar.

**Industrial Gases – Americas Operating Income and Margin**

Operating income of \$182.0 increased 7%, or \$12.4, due to higher pricing net of energy and fuel costs of \$18 and higher volumes of \$6, partially offset by higher other costs of \$8 and unfavorable currency impacts of \$4. The higher other costs included higher incentive compensation and the impact of lower energy pass-through, partially offset by lower maintenance expense and benefits of our restructuring actions. Operating margin of 20.4% increased 400 bp from the prior year due to the higher pricing, lower energy contractual cost pass-through to customers, and higher volumes.

**Industrial Gases – Americas Equity Affiliates' Income**

Equity affiliates' income of \$15.1 increased \$2.5 due to favorable performance in our Mexican affiliate.

**Industrial Gases – EMEA**

	Three Months Ended 31 March		\$ Change	% Change
	2015	2014		
Sales	\$448.8	\$542.7	\$(93.9)	(17)%
Operating income	71.0	87.5	(16.5)	(19)%
Operating margin	15.8%	16.1%		(30bp)
Equity affiliates' income	8.0	9.3	(1.3)	(14)%
Adjusted EBITDA	126.6	151.8	(25.2)	(17)%
Adjusted EBITDA margin	28.2%	28.0%		20bp

**Industrial Gases – EMEA Sales**

	% Change from Prior Year
Underlying business	
Volume	(1)%
Price	1%
Currency	(15)%
Energy and raw material cost pass-through	(2)%
<b>Total Industrial Gases – EMEA Sales Change</b>	<b>(17)%</b>

Underlying sales were flat as lower volumes of 1% were offset by higher pricing of 1%. Volumes decreased primarily due to lower onsite volumes from customer and planned outages. Liquid bulk and packaged gas volumes were essentially flat as higher liquid oxygen and nitrogen volumes were offset by lower helium volumes. Pricing was up 1% in both packaged gas and liquid bulk. Unfavorable currency effects from the Euro, the British Pound Sterling, and the Polish Zloty reduced sales by 15%. Lower energy contractual cost pass-through to customers decreased sales by 2%.

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**Industrial Gases – EMEA Operating Income and Margin**

Operating income of \$71.0 decreased by 19%, or \$16.5, primarily due to unfavorable currency impacts. Operating margin decreased 30 bp from the prior year.

**Industrial Gases – EMEA Equity Affiliates' Income**

Equity affiliates' income of \$8.0 decreased \$1.3 due to unfavorable currency impacts.

**Industrial Gases – Asia**

	Three Months Ended 31 March		\$ Change	% Change
	2015	2014		
Sales	\$393.0	\$365.7	\$27.3	7%
Operating income	84.7	71.2	13.5	19%
Operating margin	21.6%	19.5%		210bp
Equity affiliates' income	9.4	7.6	1.8	24%
Adjusted EBITDA	144.4	126.9	17.5	14%
Adjusted EBITDA margin	36.7%	34.7%		200bp

**Industrial Gases – Asia Sales**

	% Change from Prior Year
Underlying business	
Volume	15%
Price	(3)%
Currency	(3)%
Energy and raw material cost pass-through	(2)%
<b>Total Industrial Gases – Asia Sales Change</b>	<b>7%</b>

Underlying sales increased by 12% from higher volumes of 15%, partially offset by lower pricing of 3%. Volumes were higher primarily from new plants, and in particular, a large on-site project in China. Pricing was down due to continued pricing pressure on liquid products in China. Unfavorable currency impacts decreased sales by 3%. Lower energy contractual cost-pass through to customers decreased sales by 2%.

**Industrial Gases – Asia Operating Income and Margin**

Operating income of \$84.7 increased 19%, or \$13.5, primarily due to higher volumes of \$23 and lower operating costs of \$4, partially offset by lower pricing net of power and distribution costs of \$10 and an unfavorable currency impact of \$3. Operating margin increased 210 bp from the prior year, primarily due to the higher volumes and favorable cost performance, partially offset by lower pricing.

**Industrial Gases – Asia Equity Affiliates' Income**

Equity affiliates' income of \$9.4 increased \$1.8 due to better volumes and cost performance.

**Industrial Gases – Global**

	Three Months Ended 31 March		\$ Change	% Change
	2015	2014		
Sales	\$67.1	\$ 68.4	\$ (1.3)	(2)%
Operating loss	(7.9)	(14.6)	6.7	46%
Adjusted EBITDA	(2.6)	(12.7)	10.1	80%

[Table of Contents](#)**Industrial Gases – Global Sales and Operating Loss**

Sales of \$67.1 decreased \$1.3, or 2%, primarily due to unfavorable currency impacts. Operating loss of \$7.9 decreased by \$6.7, primarily due to the gain associated with the cancellation of a sale of equipment contract in the current year.

**Materials Technologies**

	Three Months Ended 31 March		\$ Change	% Change
	2015	2014		
Sales	\$533.3	\$499.6	\$33.7	7%
Operating income	124.2	93.8	30.4	32%
Operating margin	23.3%	18.8%		450bp
Adjusted EBITDA	148.2	117.1	31.1	27%
Adjusted EBITDA margin	27.8%	23.4%		440bp

**Materials Technologies Sales**

	% Change from Prior Year
Underlying business	
Volume	9%
Price	2%
Currency	(4)%
<b>Total Materials Technologies Sales Change</b>	<b>7%</b>

Underlying sales increased by 11% from higher volumes of 9% and positive pricing of 2%. Unfavorable currency impacts decreased sales by 4%. Electronics Materials sales increased 16% from positive volume and price with strong performance from all businesses. Performance Materials sales decreased 1% as higher volumes and pricing across all three businesses of 4% were more than offset by unfavorable currency impacts.

**Materials Technologies Operating Income and Margin**

Operating income of \$124.2 increased 32%, or \$30.4, primarily from higher volumes of \$20 and higher pricing net of raw materials and distribution costs of \$18, partially offset by unfavorable currency impacts of \$5 and higher costs of \$3. Operating margin of 23.3% increased 450 bp, primarily from the higher price and volumes, partially offset by the unfavorable currency impact.

**Energy-from-Waste**

	Three Months Ended 31 March		\$ Change	% Change
	2015	2014		
Operating loss	\$(2.8)	\$(3.5)	\$.7	20%
Adjusted EBITDA	(2.8)	(3.5)	.7	20%

The Energy-from-Waste segment consists of two projects that are under construction in Tees Valley, United Kingdom. Once operational, these projects will process waste materials and generate renewable power for customers under long-term contracts. Costs incurred prior to project completion include a land lease and commercial management.

**Corporate and other**

	Three Months Ended 31 March		\$ Change	% Change
	2015	2014		
Sales	\$81.9	\$ 72.6	\$ 9.3	13%
Operating loss	(8.8)	(19.3)	10.5	54%
Adjusted EBITDA	(5.5)	(17.0)	11.5	68%

**Corporate and other Sales and Operating Loss**

Sales of \$81.9 and operating loss of \$8.8 were favorable versus the prior year primarily due to higher liquefied natural gas (LNG) project activity partially offset by lower helium container sales. Corporate costs were flat, as the benefits from our cost reduction actions were offset by higher incentive compensation.

**FIRST SIX MONTHS 2015 VS. FIRST SIX MONTHS 2014****FIRST SIX MONTHS 2015 IN SUMMARY**

- Sales of \$4,975.3 decreased 3%, or \$152.1, as underlying sales growth of 4% was more than offset by unfavorable currency impacts of 4% and lower energy contractual cost pass-through to customers of 3%.
- Operating income of \$804.4 increased 4%, or \$34.1, and operating margin of 16.2% increased 120 bp, primarily due to higher volumes and higher pricing. On a non-GAAP basis, operating income of \$886.9 increased 15%, or \$116.6, and operating margin of 17.8% increased 280 bp.
- Adjusted EBITDA of \$1,431.8 increased 10%, or \$129.6, primarily due to higher volumes, higher pricing, and favorable cost performance. Adjusted EBITDA margin of 28.8% increased 340 bp.
- Net income of \$614.6 increased 8%, or \$44.0, and diluted earnings per share of \$2.83 increased 6%, or \$.17. On a non-GAAP basis, net income of \$671.2 increased 18%, or \$100.6, and diluted earnings per share of \$3.09 increased 16%, or \$.43. A summary table of changes in diluted earnings per share is presented below.
- The Company realigned its businesses in new reporting segments and began operating under the new structure 1 October 2014.
- We increased our quarterly dividend by 5% from \$.77 to \$.81 per share. This represents the 33<sup>rd</sup> consecutive year that we have increased our dividend payment.

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**Changes in Diluted Earnings per Share Attributable to Air Products – Non-GAAP Basis**

	Six Months Ended 31 March		Increase (Decrease)
	2015	2014	
<b>Diluted Earnings per Share</b>			
Net Income	\$2.83	\$2.67	\$ .16
Income from Discontinued Operations	—	.01	(.01)
<b>Income from Continuing Operations – GAAP Basis</b>	<b>\$2.83</b>	<b>\$2.66</b>	<b>\$ .17</b>
Business restructuring and cost reduction actions	.27	—	.27
Pension settlement loss	.04	—	.04
Gain on previously held equity interest	(.05)	—	(.05)
<b>Income from Continuing Operations – Non-GAAP Basis</b>	<b>\$3.09</b>	<b>\$2.66</b>	<b>\$ .43</b>
<b>Operating Income (after-tax)</b>			
Underlying business			
Volume			\$ .36
Price/raw materials			.14
Costs			.06
Currency			(.14)
<b>Operating Income</b>			<b>\$ .42</b>
<b>Other (after-tax)</b>			
Equity affiliates' income			.03
Interest expense			.04
Noncontrolling interests			(.02)
Weighted average diluted shares			(.04)
<b>Other</b>			<b>\$ .01</b>
<b>Total Change in Diluted Earnings per Share from Continuing Operations – Non-GAAP Basis</b>			<b>\$ .43</b>

**RESULTS OF OPERATIONS**
**Discussion of Consolidated Results**

	Six Months Ended 31 March		\$ Change	Change
	2015	2014		
Sales	\$4,975.3	\$5,127.4	\$(152.1)	(3)%
Operating income	804.4	770.3	34.1	4%
Operating margin	16.2%	15.0%		120bp
Equity affiliates' income	76.1	68.6	7.5	11%
<b>Non-GAAP Basis</b>				
Adjusted EBITDA	1,431.8	1,302.2	129.6	10%
Adjusted EBITDA margin	28.8%	25.4%		340bp
Operating income	886.9	770.3	116.6	15%
Operating margin	17.8%	15.0%		280bp

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### Sales

	% Change from Prior Year
Underlying business	
Volume	3%
Price	1%
Currency	(4)%
Energy and raw material cost pass-through	(3)%
<b>Total Consolidated Change</b>	<b>(3)%</b>

Underlying sales were up 4% from higher volumes of 3% and higher pricing of 1%. Volumes increased from growth in the Materials Technologies, Industrial Gases – Asia, and Industrial Gases – Americas segments. The favorable pricing was primarily in the Industrial Gases – Americas segment. Currency unfavorably impacted sales by 4%, and lower energy contractual cost pass-through to customers decreased sales by 3%.

### Operating Income and Margin

Operating income of \$804.4 increased 4%, or \$34.1, as higher volumes of \$103, favorable pricing net of energy and distribution costs of \$38, a gain of \$18 on the previously held equity interest, and lower other costs of \$16 were partially offset by charges associated with the business restructuring and cost reduction actions of \$88, unfavorable currency impacts of \$40, and a pension settlement loss of \$13. Other costs were lower as benefits from our recent cost reduction actions and lower maintenance expense were partially offset by higher incentive compensation and unfavorable other income. Operating margin of 16.2% increased 120 bp, primarily due to higher volumes and higher pricing. On a non-GAAP basis, operating income of \$886.9 increased 15%, or \$116.6, and operating margin of 17.8% increased 280 bp.

### Adjusted EBITDA

Adjusted EBITDA of \$1,431.8 increased 10%, or \$129.6, primarily due to higher volumes, higher pricing, and favorable cost performance. Adjusted EBITDA margin of 28.8% increased 340 bp.

### Equity Affiliates' Income

Income from equity affiliates of \$76.1 increased \$7.5, primarily due to higher volumes and favorable cost performance in our Industrial Gases – Asia and Industrial Gases – Americas affiliates.

### Cost of Sales and Gross Margin

Cost of sales of \$3,530.6 decreased \$252.9, primarily due to a favorable currency impact of \$154, lower energy costs of \$136, and lower operating costs of \$32, partially offset by costs attributable to higher sales volumes of \$69. Operating costs included favorable impacts from restructuring actions and lower maintenance partially offset by higher incentive compensation.

Gross margin of 29.0% increased 280 bp, primarily due to higher volumes of 110 bp, higher price, net of raw materials, of 100 bp, and favorable costs, including energy pass-through, of 70 bp.

### Selling and Administrative Expense

Selling and administrative expense of \$499.1 decreased \$45.2, primarily due to the benefits of our recent cost reduction actions of \$37 and favorable currency effects of \$27, partially offset by higher other costs of \$19, including incentive compensation. Selling and administrative expense, as a percent of sales, decreased from 10.6% to 10.0%.

### Research and Development

Research and development expense of \$71.7 increased \$5.0 due to higher operating costs. Research and development expense, as a percent of sales, increased from 1.3% in 2014 to 1.4% in 2015.

### Business Restructuring and Cost Reduction Actions

On 18 September 2014, we announced plans to reorganize the Company, including realignment of our businesses in new reporting segments and other organizational changes, effective as of 1 October 2014. As a result of this reorganization, we have incurred severance and other charges. In the fourth quarter of 2014, we recognized expense of \$12.7 (\$8.2 after-tax, or \$.04 per share) related to the elimination of approximately 50 positions. For the six months ended 31 March 2015, we recognized an expense of \$87.8 (\$59.9 after-tax, or \$.27 per share) related to the elimination of approximately 1,100 positions. We will continue to incur severance and other charges in future periods. Refer to Note 4, Business Restructuring and Cost Reduction Actions, for additional details.

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### **Pension Settlement Losses**

Our U.S. supplemental pension plan provides for a lump sum benefit payment option at the time of retirement, or for corporate officers, six months after their retirement date. Pension settlements are immediately recognized when cash payments exceed the sum of the service and interest cost components of net periodic pension cost of the plan for the fiscal year. The participant's vested benefit is considered fully settled upon cash payment of the lump sum. For the six months ended 31 March 2015, we recognized a pension settlement charge of \$12.6 (\$7.9 after-tax, or \$.04 per share) to accelerate recognition of a portion of actuarial losses deferred in accumulated other comprehensive loss associated with the U.S. supplemental pension plan.

### **Gain on Previously Held Equity Interest**

On 30 December 2014, we acquired our partner's equity ownership interest in a liquefied industrial gases production joint venture in North America for \$22.6 which increased our ownership from 50% to 100%. The transaction was accounted for as a business combination, and subsequent to the acquisition, the results are consolidated within our Industrial Gases- Americas segment. The assets acquired, primarily plant and equipment, were recorded at their fair value as of the acquisition date.

The acquisition date fair value of the previously held equity interest was determined using a discounted cash flow analysis under the income approach. The six months ended 31 March 2015 include a gain of \$17.9 (\$11.2 after-tax, or \$.05 per share) as a result of revaluing our previously held equity interest to fair value as of the acquisition date.

### **Other Income (Expense), Net**

Other income (expense), net of \$13.0 decreased \$24.4, partially due to unfavorable foreign exchange impacts and lower gains from the sale of assets and emissions credits. No other individual items were significant in comparison to the prior year.

### **Interest Expense**

	Six Months Ended 31 March	
	2015	2014
Interest incurred	\$75.7	\$80.2
Less: capitalized interest	23.2	15.4
Interest expense	\$52.5	\$64.8

Interest incurred decreased \$4.5. The decrease was driven primarily by the impact of a stronger U.S. dollar on the translation of foreign currency interest and lower average interest rate on the debt portfolio partially offset by a higher average debt balance. The change in capitalized interest was driven by an increase in projects under construction.

### **Effective Tax Rate**

The effective tax rate equals the income tax provision divided by income from continuing operations before taxes. The effective tax rate was 23.4% and 24.1% in 2015 and 2014, respectively. In the current year, the impacts of the business restructuring and cost reduction actions, the pension settlements losses, and the gain on our previously held equity interest decreased our effective tax rate by 70 bp. On a non-GAAP basis, the effective tax rate was 24.1% in both 2015 and 2014.

### **Discontinued Operations**

In the first quarter of 2014, we sold the remaining portion of the Homecare business for £6.1 million (\$9.8) and recorded a gain on the sale of \$2.4. Refer to Note 3, Discontinued Operations, for additional details.

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**Segment Analysis**

**Industrial Gases – Americas**

	Six Months Ended 31 March		\$ Change	% Change
	2015	2014		
Sales	\$1,893.4	\$1,976.8	\$(83.4)	(4)%
Operating income	393.2	354.1	39.1	11%
Operating margin	20.8%	17.9%		290bp
Equity affiliates' income	32.3	30.2	2.1	7%
Adjusted EBITDA	632.4	587.7	44.7	8%
Adjusted EBITDA margin	33.4%	29.7%		370bp

**Industrial Gases – Americas Sales**

	% Change from Prior Year
Underlying business	
Volume	3%
Price	2%
Currency	(3)%
Energy and raw material cost pass-through	(6)%
<b>Total Industrial Gases – Americas Sales Change</b>	<b>(4)%</b>

Underlying sales increased 5% from higher volumes of 3% and higher pricing of 2%. Volumes increased in North America from growth in liquid oxygen, nitrogen, and argon due to stronger demand across our customer base, and higher hydrogen volumes due to strong demand from refinery customers and fewer outages. These increases were partially offset by lower helium volumes. In Latin America, volumes were flat due to continued economic weakness. Pricing was higher due to general price increases and inflation recovery.

Currency decreased sales by 3% primarily due to the impacts of the Chilean Peso, Brazilian Real, and Canadian Dollar. Lower energy contractual cost pass-through to customers, primarily natural gas, decreased sales by 6%.

**Industrial Gases – Americas Operating Income and Margin**

Operating income of \$393.2 increased 11%, or \$39.1, due to higher pricing net of energy and distribution costs of \$35 and higher volumes of \$18, partially offset by unfavorable currency impacts of \$8 and higher costs of \$6. Operating margin increased 290 bp from the prior year due to the higher pricing, lower energy contractual cost pass-through to customers, and higher volumes.

**Industrial Gases – Americas Equity Affiliates' Income**

Equity affiliates' income of \$32.3 increased \$2.1 due to improved performance in our Mexican equity affiliate.

**Industrial Gases – EMEA**

	Six Months Ended 31 March		\$ Change	% Change
	2015	2014		
Sales	\$949.6	\$1,092.6	\$(143.0)	(13)%
Operating income	152.3	172.7	(20.4)	(12)%
Operating margin	16.0%	15.8%		20bp
Equity affiliates' income	18.3	19.0	(.7)	(4)%
Adjusted EBITDA	269.3	301.6	(32.3)	(11)%
Adjusted EBITDA margin	28.4%	27.6%		80bp

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**Industrial Gases – EMEA Sales**

	% Change from Prior Year
Underlying business	
Volume	(1)%
Price	1%
Currency	(11)%
Energy and raw material cost pass-through	(2)%
<b>Total Industrial Gases – EMEA Sales Change</b>	<b>(13)%</b>

Underlying sales were flat as lower volumes of 1% were offset by higher pricing of 1%. Volumes decreased primarily due to lower onsite volumes from customer and planned outages. Liquid bulk and packaged gas volumes were essentially flat as higher liquid oxygen and nitrogen volumes were offset by lower cylinder and helium volumes. Pricing was up 1% on improvement in both packaged gas and liquid bulk. Unfavorable currency effects from the Euro, the British Pound Sterling, and the Polish Zloty reduced sales by 11%. Lower energy contractual cost pass-through to customers decreased sales by 2%.

**Industrial Gases – EMEA Operating Income and Margin**

Operating income of \$152.3 decreased by 12%, or \$20.4, primarily due to unfavorable currency impacts. Operating margin increased 20 bp from the prior year.

**Industrial Gases – EMEA Equity Affiliates' Income**

Equity affiliates' income of \$18.3 decreased \$7.

**Industrial Gases – Asia**

	Six Months Ended 31 March		\$ Change	% Change
	2015	2014		
Sales	\$791.7	\$761.0	\$30.7	4%
Operating income	175.2	153.9	21.3	14%
Operating margin	22.1%	20.2%		190bp
Equity affiliates' income	24.0	17.2	6.8	40%
Adjusted EBITDA	299.1	265.6	33.5	13%
Adjusted EBITDA margin	37.8%	34.9%		290bp

**Industrial Gases – Asia Sales**

	% Change from Prior Year
Underlying business	
Volume	11%
Price	(2)%
Currency	(3)%
Energy and raw material cost pass-through	(2)%
<b>Total Industrial Gases – Asia Sales Change</b>	<b>4%</b>

Underlying sales increased by 9% from higher volumes of 11%, partially offset by lower pricing of 2%. Volumes were higher primarily from new plants, and in particular, a large on-site project in China. Pricing was down due to continued pricing pressure on liquid products in China. Unfavorable currency impacts decreased sales by 3%. Lower energy contractual cost-pass through to customers decreased sales by 2%.

**Industrial Gases – Asia Operating Income and Margin**

Operating income increased 14%, or \$21.3, primarily due to higher volumes of \$34 and lower operating costs of \$9, partially offset by lower pricing net of power and distribution costs of \$18 and an unfavorable currency impact of \$4. Operating margin increased 190 bp from the prior year, primarily due to the higher volumes and favorable cost performance, partially offset by lower pricing.

[Table of Contents](#)**Industrial Gases – Asia Equity Affiliates’ Income**

Equity affiliates’ income of \$24.0 increased \$6.8, primarily due to higher volumes and favorable cost performance.

**Industrial Gases – Global**

	Six Months Ended 31 March		\$ Change	% Change
	2015	2014		
Sales	\$126.1	\$135.6	\$(9.5)	(7)%
Operating loss	(25.8)	(24.9)	(.9)	(4)%
Adjusted EBITDA	(15.8)	(20.6)	4.8	23%

**Industrial Gases – Global Sales and Operating Loss**

Sales of \$126.1 decreased \$9.5, or 7%, primarily due to lower project activity and unfavorable currency. Operating loss of \$25.8 increased by \$.9 due to higher inventory cost and the lower project activity, partially offset by the gain associated with the cancellation of a sale of equipment contract in the current year.

**Materials Technologies**

	Six Months Ended 31 March		\$ Change	% Change
	2015	2014		
Sales	\$1,057.3	\$979.1	\$78.2	8%
Operating income	228.8	158.1	70.7	45%
Operating margin	21.6%	16.1%		550bp
Adjusted EBITDA	277.4	206.5	70.9	34%
Adjusted EBITDA margin	26.2%	21.1%		510bp

**Materials Technologies Sales**

	% Change from Prior Year
Underlying business	
Volume	10%
Price	1%
Currency	(3)%
<b>Total Materials Technologies Sales Change</b>	<b>8%</b>

Underlying sales increased by 11% from higher volumes of 10% and positive pricing of 1%. Unfavorable currency impacts decreased sales by 3%. Electronics Materials sales increased 15% from positive volume and price with strong performance from all businesses. Performance Materials sales increased 2% as higher volumes across all product lines of 6% were partially offset by unfavorable currency impacts.

**Materials Technologies Operating Income and Margin**

Operating income of \$228.8 increased 45%, or \$70.7, from higher volumes of \$41, higher price net of raw material costs of \$20, and lower costs of \$17, partially offset by unfavorable currency impacts of \$7. The lower costs include lower inventory costs and the benefits of our recent business restructuring and cost reduction actions. Operating margin increased 550 bp, primarily from higher volumes, higher pricing, and improved cost performance, partially offset by the unfavorable currency impact.

[Table of Contents](#)**Energy-from-Waste**

	Six Months Ended 31 March		\$ Change	% Change
	2015	2014		
Operating loss	\$(5.3)	\$(6.4)	\$ 1.1	17%
Adjusted EBITDA	(5.3)	(6.4)	1.1	17%

The Energy-from-Waste segment consists of two projects that are under construction in Tees Valley, United Kingdom. Once operational, these projects will process waste materials and generate renewable power for customers under long-term contracts. Costs incurred prior to project completion include a land lease and commercial management.

**Corporate and other**

	Six Months Ended 31 March		\$ Change	% Change
	2015	2014		
Sales	\$ 157.2	\$ 182.3	\$(25.1)	(14)%
Operating loss	(31.5)	(37.2)	5.7	15%
Adjusted EBITDA	(25.3)	(32.2)	6.9	21%

**Corporate and other Sales and Operating Loss**

Sales of \$157.2 decreased \$25.1, primarily due to the exit from our PUI business, which was completed in the first quarter of fiscal year 2014, and lower helium container sales, partially offset by higher LNG project activity. Operating loss of \$31.5 decreased \$5.7 as the exit from PUI business was more than offset by higher LNG activity. Corporate costs were flat, as the benefits from our cost reduction actions were offset by higher incentive compensation.

**RECONCILIATION OF NON-GAAP FINANCIAL MEASURES**

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

The discussion of second quarter and year-to-date results includes comparisons to non-GAAP financial measures, including Adjusted EBITDA. The presentation of non-GAAP measures is intended to enhance the usefulness of financial information by providing measures which management uses internally to evaluate our operating performance.

We use non-GAAP measures to assess our operating performance by excluding certain disclosed items that we believe are not representative of our underlying business. We believe non-GAAP financial measures provide investors with meaningful information to understand our underlying operating results and to analyze financial and business trends. Non-GAAP financial measures, including Adjusted EBITDA, should not be viewed in isolation, are not a substitute for GAAP measures, and have limitations which include but are not limited to:

- Our measure excludes certain disclosed items, which we do not consider to be representative of underlying business operations. However, these disclosed items represent costs (benefits) to the Company.
- Though not business operating costs, interest expense and income tax provision represent ongoing costs of the Company.
- Depreciation, amortization, and impairment charges represent the wear and tear and/or reduction in value of the plant, equipment, and intangible assets which permit us to manufacture and/or market our products.
- Other companies may define non-GAAP measures differently than we do, limiting their usefulness as comparative measures.

A reader may find any one or all of these items important in evaluating our performance. Management compensates for the limitations of using non-GAAP financial measures by using them only to supplement our GAAP results to provide a more complete understanding of the factors and trends affecting our business. In evaluating these financial measures, the reader should be aware that we may incur expenses similar to those eliminated in this presentation in the future.

Presented below are reconciliations of the reported GAAP results to the non-GAAP measures:

**CONSOLIDATED RESULTS**

	Continuing Operations							
	Three Months Ended 31 March				Six Months Ended 31 March			
	Operating Income	Operating Margin <sup>(A)</sup>	Net Income	Diluted EPS	Operating Income	Operating Margin <sup>(A)</sup>	Net Income	Diluted EPS
2015 GAAP	\$374.4	15.5%	\$290.0	\$1.33	\$804.4	16.2%	\$614.6	\$2.83
2014 GAAP	384.7	14.9%	283.5	1.32	770.3	15.0%	570.6	2.66
Change GAAP	\$ (10.3)	60bp	\$ 6.5	\$ .01	\$ 34.1	120bp	\$ 44.0	\$ .17
% Change GAAP	(3)%		2%	1%	4%		8%	6%
2015 GAAP	\$374.4	15.5%	\$290.0	\$1.33	\$804.4	16.2%	\$614.6	\$2.83
Business restructuring and cost reduction actions (tax impact \$17.2 and \$27.9)	55.4	2.3%	38.2	.18	87.8	1.7%	59.9	.27
Pension settlement loss (tax impact \$4.7)	12.6	.5%	7.9	.04	12.6	.3%	7.9	.04
Gain on previously held equity interest (tax impact \$6.7)	—	—	—	—	(17.9)	(.4)%	(11.2)	(.05)
2015 Non-GAAP Measure	\$442.4	18.3%	\$336.1	\$1.55	\$886.9	17.8%	\$671.2	\$3.09
2014 GAAP	\$384.7	14.9%	\$283.5	\$1.32	\$770.3	15.0%	\$570.6	\$2.66
2014 Non-GAAP Measure	\$384.7	14.9%	\$283.5	\$1.32	\$770.3	15.0%	\$570.6	\$2.66
Change Non-GAAP Measure	\$ 57.7	340bp	\$ 52.6	\$ .23	\$ 116.6	280bp	\$ 100.6	\$ .43
% Change Non-GAAP Measure	15%		19%	17%	15%		18%	16%

<sup>(A)</sup> Operating Margin is calculated by dividing operating income by sales.

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**INCOME TAXES**

	Effective Tax Rate			
	Three Months Ended 31 March		Six Months Ended 31 March	
	2015	2014	2015	2014
<b>Income Tax Provision – GAAP</b>	<b>\$ 87.1</b>	<b>\$ 92.1</b>	<b>\$193.6</b>	<b>\$186.6</b>
Income from continuing operations before taxes – GAAP	\$384.0	\$383.6	\$828.0	\$774.1
<b>Effective Tax Rate – GAAP</b>	<b>22.7%</b>	<b>24.0%</b>	<b>23.4%</b>	<b>24.1%</b>
Income Tax Provision – GAAP	\$ 87.1	\$ 92.1	\$193.6	\$186.6
Business restructuring and cost reduction actions tax impact	17.2	—	27.9	—
Pension settlement loss tax impact	4.7	—	4.7	—
Gain on previously held equity interest tax impact	—	—	(6.7)	—
<b>Income Tax Provision – Non-GAAP Measure</b>	<b>\$109.0</b>	<b>\$ 92.1</b>	<b>\$219.5</b>	<b>\$186.6</b>
Income from continuing operations before taxes – GAAP	\$384.0	\$383.6	\$828.0	\$774.1
Business restructuring and cost reduction actions	55.4	—	87.8	—
Pension settlement loss	12.6	—	12.6	—
Gain on previously held equity interest	—	—	(17.9)	—
<b>Income from continuing operations before taxes – Non-GAAP Measure</b>	<b>\$452.0</b>	<b>\$383.6</b>	<b>\$910.5</b>	<b>\$774.1</b>
<b>Effective Tax Rate – Non-GAAP Measure</b>	<b>24.1%</b>	<b>24.0%</b>	<b>24.1%</b>	<b>24.1%</b>

**ADJUSTED EBITDA**

We define Adjusted EBITDA as income from continuing operations (including noncontrolling interests) excluding certain disclosed items, which the Company does not believe to be indicative of ongoing business trends, before interest expense, income tax provision, and depreciation and amortization expense. Adjusted EBITDA provides a useful metric for management to assess operating performance.

Below is a reconciliation of Income from Continuing Operations on a GAAP basis to Adjusted EBITDA:

	Three Months Ended 31 March		Six Months Ended 31 March	
	2015	2014	2015	2014
	<b>Income from Continuing Operations<sup>(A)</sup></b>	<b>\$296.9</b>	<b>\$291.5</b>	<b>\$ 634.4</b>
Add: Interest expense	23.4	31.5	52.5	64.8
Add: Income tax provision	87.1	92.1	193.6	186.6
Add: Depreciation and amortization	233.3	229.1	468.8	463.3
Add: Business restructuring and cost reduction actions	55.4	—	87.8	—
Add: Pension settlement loss	12.6	—	12.6	—
Less: Gain on previously held equity interest	—	—	17.9	—
<b>Adjusted EBITDA</b>	<b>\$708.7</b>	<b>\$644.2</b>	<b>\$1,431.8</b>	<b>\$1,302.2</b>
Change from prior year	64.5	—	129.6	—
% Change from prior year	10%	—	10%	—

<sup>(A)</sup> Includes net income attributable to noncontrolling interests.

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Below is a reconciliation of segment Operating Income to Adjusted EBITDA:

	Industrial Gases— Americas	Industrial Gases— EMEA	Industrial Gases— Asia	Industrial Gases— Global	Materials Technologies	Energy- from- Waste	Corporate and other	Segment Total
<b>Three Months Ended 31 March 2015</b>								
Operating income (loss)	\$182.0	\$ 71.0	\$ 84.7	\$ (7.9)	\$124.2	\$(2.8)	\$ (8.8)	\$ 442.4
Add: Depreciation and amortization	103.3	47.6	50.3	5.5	23.3	—	3.3	233.3
Add: Equity affiliates' income (loss)	15.1	8.0	9.4	(.2)	.7	—	—	33.0
<b>Adjusted EBITDA</b>	<b>\$300.4</b>	<b>\$126.6</b>	<b>\$144.4</b>	<b>\$ (2.6)</b>	<b>\$148.2</b>	<b>\$(2.8)</b>	<b>\$ (5.5)</b>	<b>\$ 708.7</b>
<b>Adjusted EBITDA margin</b>	<b>33.7%</b>	<b>28.2%</b>	<b>36.7%</b>		<b>27.8%</b>			<b>29.4%</b>
<b>Three Months Ended 31 March 2014</b>								
Operating income (loss)	\$169.6	\$ 87.5	\$ 71.2	\$(14.6)	\$ 93.8	\$(3.5)	\$(19.3)	\$ 384.7
Add: Depreciation and amortization	99.4	55.0	48.1	1.6	22.7	—	2.3	229.1
Add: Equity affiliates' income	12.6	9.3	7.6	.3	.6	—	—	30.4
<b>Adjusted EBITDA</b>	<b>\$281.6</b>	<b>\$151.8</b>	<b>\$126.9</b>	<b>\$(12.7)</b>	<b>\$117.1</b>	<b>\$(3.5)</b>	<b>\$(17.0)</b>	<b>\$ 644.2</b>
<b>Adjusted EBITDA margin</b>	<b>27.3%</b>	<b>28.0%</b>	<b>34.7%</b>		<b>23.4%</b>			<b>25.0%</b>
Adjusted EBITDA change	\$ 18.8	\$(25.2)	\$ 17.5	\$ 10.1	\$ 31.1	\$ .7	\$ 11.5	\$ 64.5
Adjusted EBITDA % change	7%	(17)%	14%	80%	27%	20%	68%	10%
Adjusted EBITDA margin change	640bp	20bp	200bp		440bp			440bp
<b>Six Months Ended 31 March 2015</b>								
Operating income (loss)	\$393.2	\$152.3	\$175.2	\$(25.8)	\$228.8	\$(5.3)	\$(31.5)	\$ 886.9
Add: Depreciation and amortization	206.9	98.7	99.9	9.8	47.3	—	6.2	468.8
Add: Equity affiliates' income	32.3	18.3	24.0	.2	1.3	—	—	76.1
<b>Adjusted EBITDA</b>	<b>\$632.4</b>	<b>\$269.3</b>	<b>\$299.1</b>	<b>\$(15.8)</b>	<b>\$277.4</b>	<b>\$(5.3)</b>	<b>\$(25.3)</b>	<b>\$1,431.8</b>
<b>Adjusted EBITDA margin</b>	<b>33.4%</b>	<b>28.4%</b>	<b>37.8%</b>		<b>26.2%</b>			<b>28.8%</b>
<b>Six Months Ended 31 March 2014</b>								
Operating income (loss)	\$354.1	\$172.7	\$153.9	\$(24.9)	\$158.1	\$(6.4)	\$(37.2)	\$ 770.3
Add: Depreciation and amortization	203.4	109.9	94.5	3.3	47.2	—	5.0	463.3
Add: Equity affiliates' income	30.2	19.0	17.2	1.0	1.2	—	—	68.6
<b>Adjusted EBITDA</b>	<b>\$587.7</b>	<b>\$301.6</b>	<b>\$265.6</b>	<b>\$(20.6)</b>	<b>\$206.5</b>	<b>\$(6.4)</b>	<b>\$(32.2)</b>	<b>\$1,302.2</b>
<b>Adjusted EBITDA margin</b>	<b>29.7%</b>	<b>27.6%</b>	<b>34.9%</b>		<b>21.1%</b>			<b>25.4%</b>
Adjusted EBITDA change	\$ 44.7	\$(32.3)	\$ 33.5	\$ 4.8	\$ 70.9	\$ 1.1	\$ 6.9	\$ 129.6
Adjusted EBITDA % change	8%	(11)%	13%	23%	34%	17%	21%	10%
Adjusted EBITDA margin change	370bp	80bp	290bp		510bp			340bp

## PENSION BENEFITS

Management considers various factors when making pension funding decisions, including tax, cash flow, and regulatory implications. For the six months ended 31 March 2015, required cash contributions to funded pension plans and benefit payments under unfunded pension plans were \$95.4. For the six months ended 31 March 2014, cash contributions were \$43.9. Total contributions for fiscal 2015 are expected to be approximately \$130 to \$150. During fiscal 2014, total contributions were \$78.2.

We recognized pension settlement losses and curtailment charges of \$15.7 in the second quarter of 2015. We also anticipate additional pension settlement losses and curtailment charges in the second half of fiscal year 2015.

Refer to Note 10, Retirement Benefits, to the consolidated financial statements for details on pension cost and cash contributions.

**LIQUIDITY AND CAPITAL RESOURCES**

We have maintained a strong financial position through the first six months of 2015. We continue to have consistent access to commercial paper markets and cash flows from operations and financing activities are expected to meet liquidity needs for the foreseeable future.

As of 31 March 2015, we had \$187.4 of foreign cash and cash items compared to total cash and cash items of \$195.7. If the foreign cash and cash items are needed for operations in the U.S. or we otherwise elect to repatriate the funds, we may be required to accrue and pay U.S. taxes on a significant portion of these amounts. However, since we have significant current investment plans outside the U.S., it is our intent to permanently reinvest the majority of our foreign cash and cash items outside the U.S. Current financing alternatives do not require the repatriation of foreign funds.

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

**Operating Activities**

For the first six months of 2015, cash provided by operating activities was \$967.2. Income from continuing operations of \$614.6 reflected the non-cash gain on the previously held equity interest of \$17.9 and undistributed earnings of unconsolidated affiliates of \$58.0. Income from continuing operations is adjusted for reconciling items that include depreciation and amortization, deferred income taxes, share-based compensation, and noncurrent capital lease receivables. Other adjustments included pension and postretirement expense of \$75.5 and contributions to our pension plans of \$95.4, primarily for plans in the U.S. and U.K.

For the first six months of 2014, cash provided by operating activities was \$1,024.7, including income from continuing operations of \$570.6. The working capital accounts were a use of cash of \$125.9, including an increase in trade receivables of \$82.0 and a decrease in accounts payable and accrued liabilities of \$130.0 which included payments related to the 2013 business restructuring and cost reduction plan of \$17.8, a reduction in accrued interest of \$21.7, and payments associated with projects accounted for as capital leases of \$56.3. We contributed \$43.9 to our pension plans, primarily for plans in the U.K.

**Investing Activities**

For the first six months of 2015, cash used for investing activities was \$839.8, primarily driven by capital expenditures for plant and equipment of \$817.6. On 30 December 2014, we acquired our partner's equity ownership interest in a liquefied industrial gases production joint venture in North America which increased our ownership from 50% to 100%. Refer to Note 5, Business Combinations, to the consolidated financial statements for additional information.

For the first six months of 2014, cash used for investing activities was \$791.4, primarily driven by capital expenditures for plant and equipment of \$802.2.

Capital expenditures are detailed in the table below:

	Six Months Ended 31 March	
	2015	2014
Additions to plant and equipment	\$817.6	\$802.2
Acquisitions, less cash acquired	34.5	—
Capital expenditures on a GAAP basis	\$852.1	\$802.2
Capital lease expenditures <sup>(A)</sup>	47.2	99.1
Purchase of noncontrolling interests in a subsidiary <sup>(A)</sup>	—	.5
Capital expenditures on a Non-GAAP basis	\$899.3	\$901.8

<sup>(A)</sup> We utilize a non-GAAP measure in the computation of capital expenditures and include spending associated with facilities accounted for as capital leases and purchases of noncontrolling interests. 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, if the arrangement qualifies as a capital lease. Additionally, the payment for subsidiary shares from noncontrolling interests in a subsidiary is accounted for as an equity transaction and is reflected as a financing activity in the statement of cash flows. The presentation of this non-GAAP measure is intended to enhance the usefulness of information by providing a measure that our management uses internally to evaluate and manage our expenditures.

The sales backlog for the Company at 31 March 2015 was \$483, compared to \$520 at 30 September 2014. The sales backlog represents our estimate of revenue to be recognized in the future on sale of equipment orders and related process technology that are under firm contracts.

### **Joint Venture Supply Agreement**

In 2012, we entered into an agreement with ACWA Holding to pursue industrial gas supply projects in Saudi Arabia. On 19 April 2015, a joint venture between Air Products and ACWA Holding entered into a 20-year oxygen and nitrogen supply agreement to supply Saudi Aramco's oil refinery being built in Jazan, Saudi Arabia. Air Products will own 25% of the joint venture and will invest approximately \$100. Air Products has also entered into a sale of equipment contract with the joint venture to engineer, procure and construct the industrial gas facilities that will supply the gases to Saudi Aramco.

### **Financing Activities**

For the first six months of 2015, cash used for financing activities was \$256.6. This consisted primarily of dividend payments of \$329.4, partially offset by proceeds from stock option exercises of \$77.2. Our borrowings (short- and long-term proceeds net of repayments) were a net source of cash of \$7.0 and included the repayment of a 3.875% Eurobond of €300 million (\$335.9) and the issuance of a 1.0% Eurobond of €300 million (\$335.3).

For the first six months of 2014, cash used for financing activities was \$337.7. Our borrowings (short- and long-term proceeds, net of repayments) were a net use of cash of \$81.1, driven primarily by the repayment of a 3.75% Eurobond of €300 million (\$401.0) in November 2013, partially offset by an increase in commercial paper and short-term borrowings of \$370.9. The primary additional use of cash was to pay dividends of \$300.2.

### **Discontinued Operations**

For the first six months of 2015, there were no discontinued operations.

For the first six months of 2014, cash provided by discontinued operations was \$10.5. The sale of the remaining Homecare business, which was primarily in the United Kingdom and Ireland, generated proceeds of £6.1 million (\$9.8) and a \$2.4 gain which are included in discontinued operations in the consolidated statements of cash flows.

### **Financing and Capital Structure**

Capital needs were satisfied primarily with cash from operations. Total debt at 31 March 2015 and 30 September 2014, expressed as a percentage of the sum of total debt and total capitalization (total debt plus total equity plus redeemable noncontrolling interest), was 43.3% and 43.9%, respectively. Total debt decreased from \$6,118.5 at 30 September 2014 to \$5,930.2 at 31 March 2015.

During fiscal 2013, we entered into a five-year \$2,500.0 revolving credit agreement maturing 30 April 2018 with a syndicate of banks (the "2013 Credit Agreement"), under which senior unsecured debt is available to both the Company and certain of its subsidiaries. Effective 30 June 2014, the 2013 Credit Agreement was amended to increase the facility to \$2,595.0. Effective 30 April 2015, the 2013 Credit Agreement was amended to decrease the facility to \$2,405.0. The 2013 Credit Agreement provides a source of liquidity for the Company and supports its commercial paper program. The Company's only financial covenant is a maximum ratio of total debt to total capitalization no greater than 70%. No borrowings were outstanding under the 2013 Credit Agreement as of 31 March 2015.

Commitments totaling \$141.5 are maintained by our foreign subsidiaries, of which \$141.5 was borrowed and outstanding at 31 March 2015.

As of 31 March 2015, we are in compliance with all of the financial and other covenants under our debt agreements.

On 15 September 2011, the Board of Directors authorized the repurchase of up to \$1,000 of our outstanding common stock. During the first six months of fiscal year 2015, we did not purchase any of our outstanding shares. At 31 March 2015, \$485.3 in share repurchase authorization remains.

### **CONTRACTUAL OBLIGATIONS**

We are obligated to make future payments under various contracts such as debt agreements, lease agreements, unconditional purchase obligations, and other long-term obligations. Other than the issuance of a 1.0% Eurobond of €300 million (\$335.3) in February 2015 and the repayment of a 3.875% Eurobond of €300 million (\$335.9) in March 2015, there have been no material changes to contractual obligations since 30 September 2014.

### **COMMITMENTS AND CONTINGENCIES**

There have been no material changes to commitments and contingencies since 30 September 2014. For current updates on Litigation and Environmental matters, refer to Note 11, Commitments and Contingencies, in this quarterly filing.

## **OFF-BALANCE SHEET ARRANGEMENTS**

There have been no material changes to off-balance sheet arrangements since 30 September 2014. 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.

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 significant 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, including statements about earnings guidance and business outlook. These forward-looking 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 not anticipated by management, including, without limitation, weakening of global or regional economic conditions and supply and demand dynamics in market segments into which the Company sells; significant fluctuations in interest rates and foreign currencies from that currently anticipated; future financial and operating performance of major customers; unanticipated contract terminations or customer cancellations or postponement of projects and sales; the impact of competitive products and pricing; ability to protect and enforce the Company's intellectual property rights; unexpected changes in raw material supply and markets; the impact of price fluctuations in natural gas and disruptions in markets and the economy due to oil price volatility; the ability to recover increased energy and raw material costs from customers; costs and outcomes of litigation or regulatory investigations; the impact of management and organizational changes; the success of productivity and cost reduction programs; the timing, impact, and other uncertainties of future acquisitions or divestitures; political risks, including the risks of unanticipated government actions; acts of war or terrorism; the impact of changes in environmental, tax or other legislation and regulatory activities in jurisdictions in which the Company and its affiliates operate; and other risk factors described in the Company's Form 10-K for its fiscal year ended September 30, 2014. The Company disclaims any obligation or undertaking to disseminate any updates or revisions to any forward-looking statements contained in this report 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 2014 Form 10-K.

The net financial instrument position decreased from a liability of \$5,044.9 at 30 September 2014 to a liability of \$4,766.0 at 31 March 2015. The decrease was due primarily to a stronger U.S. dollar which reduced the translated value of foreign currency debt and increased the fair value of our outstanding derivatives.

There were no material changes to the sensitivity analysis related to the fixed portion of our debt portfolio since 30 September 2014.

There were no material changes to the sensitivity analysis related to the variable portion of our debt portfolio since 30 September 2014.

The sensitivity analysis related to foreign currency exchange rates assumes an instantaneous 10% change in the foreign currency exchange rates from their levels at 31 March 2015, with all other variables held constant. A 10% strengthening or weakening of the functional currency of an entity versus all other currencies would result in a decrease or increase in the net liability position of financial instruments of \$468 at 31 March 2015 versus \$419 at 30 September 2014, respectively. The change in the sensitivity analysis includes a higher notional amount of cross currency interest rate swaps primarily to hedge intercompany loans as of 31 March 2015.

**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). As of 31 March 2015 (the Evaluation Date), an evaluation of the effectiveness 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 these disclosure controls and procedures were effective.

During the quarter 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. The Company began operating under a new structure effective 1 October 2014. As a result of the new organizational structure, there have been changes in the individuals responsible for executing the controls; however, we continue to execute our business processes under the same controls.

**PART II. OTHER INFORMATION**

**Item 6. Exhibits.**

Exhibits required by Item 601 of Regulation S-K

- 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 Linkbase
- 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.

**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: 30 April 2015

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

/s/ M. Scott Crocco

M. Scott Crocco

Senior Vice President and Chief Financial Officer

**EXHIBIT INDEX**

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 Linkbase
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.

**AIR PRODUCTS AND CHEMICALS, INC., AND SUBSIDIARIES**  
**COMPUTATION OF RATIOS OF EARNINGS TO FIXED CHARGES**  
**(Unaudited)**

(Millions of dollars, except ratios)	Six Months Ended 31 March	Year Ended 30 September				
	2015	2014	2013	2012	2011	2010
<b>Earnings:</b>						
Income from continuing operations <sup>(1)</sup>	\$ 634.4	\$ 988.5	\$ 1,042.5	\$ 1,025.2	\$ 1,171.6	\$ 967.0
Add (deduct):						
Provision for income taxes	193.6	366.0	322.5	305.1	390.8	321.0
Fixed charges, excluding capitalized interest	63.3	146.2	166.9	146.7	139.4	146.3
Capitalized interest amortized during the period	5.1	9.4	10.3	9.5	9.0	8.7
Undistributed earnings of equity investees	(58.1)	(76.1)	(46.4)	(54.5)	(38.9)	(29.2)
Noncontrolling interest in pre-tax income of subsidiaries that have not incurred fixed charges	(1.5)	(2.8)	—	—	—	—
Earnings, as adjusted	\$ 836.8	\$ 1,431.2	\$ 1,495.8	\$ 1,432.0	\$ 1,671.9	\$ 1,413.8
<b>Fixed Charges:</b>						
Interest on indebtedness, including capital lease obligations	\$ 48.7	\$ 121.2	\$ 143.1	\$ 116.0	\$ 113.6	\$ 121.8
Capitalized interest	23.2	33.0	28.3	31.4	23.4	14.5
Amortization of debt discount/premium and expense	3.8	3.9	2.1	10.6	5.6	5.6
Portion of rents under operating leases representative of the interest factor	10.8	21.1	21.7	20.1	20.2	18.9
Fixed charges <sup>(2)</sup>	\$ 86.5	\$ 179.2	\$ 195.2	\$ 178.1	\$ 162.8	\$ 160.8
<b>Ratio of Earnings to Fixed Charges</b> <sup>(3)</sup>	9.7	8.0	7.7	8.0	10.3	8.8

<sup>(1)</sup> Income from continuing operations includes business restructuring and cost reduction actions of \$87.8 (\$59.9 after-tax) in 2015, a goodwill and intangible asset impairment charge of \$310.1 (\$308.8 after-tax) in 2014, and business restructuring and cost reduction plans of \$231.6 (\$157.9 after-tax) and \$327.4 (\$222.4 after-tax) in 2013 and 2012, respectively.

<sup>(2)</sup> We are party to certain debt guarantees of equity affiliates. Since we have not been required to satisfy the guarantees, nor is it probable that we will, interest expense related to the guaranteed debt is not included in fixed charges.

<sup>(3)</sup> The ratio of earnings to fixed charges is determined by dividing earnings, as adjusted, 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, Seifi Ghasemi, 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: 30 April 2015

/s/ Seifi Ghasemi

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Seifi Ghasemi  
Chairman, President and Chief Executive Officer

**PRINCIPAL FINANCIAL OFFICER'S CERTIFICATION**

I, M. Scott Crocco, 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: 30 April 2015

/s/ M. Scott Crocco

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M. Scott Crocco  
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 March 2015, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), we, Seifi Ghasemi, Chairman, President and Chief Executive Officer of the Company, and M. Scott Crocco, 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: 30 April 2015

/s/ Seifi Ghasemi

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Seifi Ghasemi  
Chairman, President and Chief Executive Officer

/s/ M. Scott Crocco

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M. Scott Crocco  
Chief Financial Officer