AIR PRODUCTS & CHEMICALS INC /DE/
Form 10-K
November 25, 2009

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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549
FORM 10-K

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

For the fiscal year ended 30 September 2009

OR

o **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.

7201 Hamilton Boulevard	**State of incorporation: Delaware**
Allentown, Pennsylvania, 18195-1501	**I.R.S. identification number: 23-1274455**
Tel. (610) 481-4911	

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class:	Registered on:
Common Stock, par value $1.00 per share	New York
Preferred Stock Purchase Rights	New York

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.
YES þ
NO o

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. YES o
NO þ

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 þ NO o

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 þ NO o

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405) is not contained herein, and will not be contained, to the best of registrant s knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. o

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):

Non-accelerated filer o Smaller reporting company o

Large accelerated filer þ	Accelerated filer o

(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 Act). YES o NO þ

The aggregate market value of the voting stock held by non-affiliates of the registrant on 31 March 2009 was approximately $11.8 billion. For purposes of the foregoing calculations all directors and/or executive officers have been deemed to be affiliates, but the registrant disclaims that any such director and/or executive officer is an affiliate.

The number of shares of common stock outstanding as of 20 November 2009 was 211,705,911.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant s definitive Proxy Statement for the 2010 Annual Meeting of Shareholders are incorporated by reference into Part III.

AIR PRODUCTS AND CHEMICALS, INC.
ANNUAL REPORT ON FORM 10-K
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PART IV

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PART I

ITEM 1. BUSINESS

General Description of Business and Fiscal Year 2009 Developments

Air Products and Chemicals, Inc. (the Company), a Delaware corporation originally founded in 1940, serves technology, energy, industrial, and healthcare customers globally with a unique portfolio of products, services, and solutions that include atmospheric gases, process and specialty gases, performance materials, equipment, and services. The Company is the world s largest supplier of hydrogen and helium and has built leading positions in growth markets such as semiconductor materials, refinery hydrogen, natural gas liquefaction, and advanced coatings and adhesives. As used in this report, unless the context indicates otherwise, the term Company includes subsidiaries and predecessors of the registrant and its subsidiaries.

As of September 2009, the Company completed the sale of its U.S. Healthcare business.

The Company manages its operations, assesses performance, and reports earnings under four business segments: Merchant Gases; Tonnage Gases; Electronics and Performance Materials; and Equipment and Energy.

Financial Information about Segments

Financial information concerning the Company s four business segments appears in Note 23 to the Consolidated Financial Statements included under Item 8 herein.

Narrative Description of Business by Segments

Merchant Gases

Merchant Gases sells atmospheric gases such as oxygen, nitrogen, and argon (primarily recovered by the cryogenic distillation of air); process gases such as hydrogen and helium (purchased or refined from crude helium); and medical and specialty gases, along with certain services and equipment, throughout the world to customers in many industries, including those in metals, glass, chemical processing, food processing, healthcare, steel, general manufacturing, and petroleum and natural gas industries.

Merchant Gases includes the following types of products:

Liquid bulk Product is delivered in bulk (in liquid or gaseous form) by tanker or tube trailer and stored, usually in its liquid state, in equipment designed and installed by the Company at the customer s site for vaporizing into a gaseous state as needed. Liquid bulk sales are typically governed by three- to five-year contracts.

Packaged gases Small quantities of product are delivered in either cylinders or dewars. The Company operates packaged gas businesses in Europe, Asia, and Brazil. In the United States, the Company s packaged gas business sells products only for the electronics and magnetic resonance imaging (principally helium) industries.

Small on-site plants Customers receive product through small on-sites (cryogenic or noncryogenic generators) either by a sale of gas contract or the sale of the equipment to the customer.

Healthcare products Customers receive respiratory therapies, home medical equipment, and infusion services. These products and services are provided to patients in their homes, primarily in Europe. The Company has leading market positions in Spain, Portugal, and the United Kingdom, and in Mexico through its equity affiliate.

Electric power is the largest cost component in the production of atmospheric gases oxygen, nitrogen, and argon. Natural gas is also an energy source at a number of the Company s Merchant Gases facilities. The Company mitigates energy and natural gas price increases through pricing formulas and surcharges. A shortage or interruption of electricity or natural gas supply, or a price increase that cannot be passed through to customers, possibly for competitive reasons, may adversely affect the operations or results of Merchant Gases. During fiscal year 2009, no significant difficulties were encountered in obtaining adequate supplies of energy or raw materials.

Merchant Gases competes worldwide against three global industrial gas companies: L Air Liquide S.A., Linde AG, and Praxair, Inc., and several regional sellers (including Airgas, Inc.). Competition in industrial gases is based primarily on price, reliability of supply, and the development of industrial gas applications. Competition in the healthcare business involves price, quality, service, and reliability of supply. In Europe, primary healthcare competitors include the same three global industrial gas companies mentioned previously, as well as smaller regional service providers. In some countries such as Spain, Portugal, and the United Kingdom, the Company tenders for significant

parts of the healthcare business with government agencies and is expecting to participate in tenders in some countries over the coming fiscal year.

Merchant Gases sales constituted 44% of the Company s consolidated sales in fiscal year 2009, 40% in fiscal year 2008, and 39% in fiscal year 2007. Sales of atmospheric gases (oxygen, nitrogen, and argon) constituted approximately 21% of the Company s consolidated sales in fiscal year 2009, 18% in fiscal year 2008, and 19% in fiscal year 2007.

Tonnage Gases

Tonnage Gases provides hydrogen, carbon monoxide, nitrogen, oxygen, and syngas principally to the energy production and refining, chemical, and metallurgical industries worldwide. Gases are produced at large facilities located adjacent to customers facilities or by pipeline systems from centrally located production facilities and are generally governed by contracts with 15 to 20 year terms. The Company is the world s largest provider of hydrogen, which is used by oil refiners to facilitate the conversion of heavy crude feedstock and lower the sulfur content of gasoline and diesel fuels to reduce smog and ozone depletion. The energy production industry uses nitrogen injection for enhanced recovery of oil and natural gas and oxygen for gasification. The metallurgical industry uses nitrogen for inerting and oxygen for the manufacture of steel and certain nonferrous metals. The chemical industry uses hydrogen, oxygen, nitrogen, carbon monoxide, and synthesis gas (a hydrogen-carbon monoxide mixture) as feedstocks in the production of many basic chemicals. The Company delivers product through pipelines from centrally located facilities in or near the Texas Gulf Coast; Louisiana; Los Angeles, California; Alberta, Canada; Rotterdam, the Netherlands; Southern England, U.K.; Northern England, U.K.; Western Belgium; Ulsan, Korea; Nanjing, China; Tangshan, China; Kuan Yin, Taiwan; Singapore; and Camaçari, Brazil. The Company also owns less than controlling interests in pipelines located in Thailand and South Africa.

Tonnage Gases also includes a Polyurethane Intermediates (PUI) business. At its Pasadena, Texas facility, the Company produces dinitrotoluene (DNT) which is converted to toluene diamine (TDA) and sold for use as an intermediate in the manufacture of a major precursor of flexible polyurethane foam used in furniture cushioning, carpet underlay, bedding, and seating in automobiles. Most of the Company s TDA is sold under long-term contracts with raw material cost and currency pass-through to a small number of customers. The Company employs proprietary technology and scale of production to differentiate its polyurethane intermediates from those of its competitors.

Natural gas is the principal raw material for hydrogen, carbon monoxide, and synthesis gas production. Electric power is the largest cost component in the production of atmospheric gases. The Company mitigates energy and natural gas price increases through long-term cost pass-through contracts. Toluene, ammonia, and hydrogen are the principal raw materials for the PUI business and are purchased from various suppliers under multiyear contracts. During fiscal year 2009, no significant difficulties were encountered in obtaining adequate supplies of energy or raw materials.

Tonnage Gases competes in the United States and Canada against three global industrial gas companies: L Air Liquide S.A., Linde AG, Praxair, Inc., and several regional competitors. Competition is based primarily on price, reliability of supply, the development of applications that use industrial gases, and, in some cases, provision of other services or products such as power and steam generation. The Company also derives a competitive advantage from its pipeline networks, which enable it to provide a reliable and economic supply of products to customers. Similar competitive situations exist in the European and Asian industrial gas markets where the Company competes against the three global companies as well as regional competitors. Global competitors for the PUI business are primarily BASF Corporation and Bayer AG.

Tonnage Gases sales constituted approximately 31% of the Company s consolidated sales in fiscal year 2009, 34% in fiscal year 2008, and 32% in fiscal year 2007. Tonnage Gases hydrogen sales constituted approximately 15% of the Company s consolidated sales in fiscal year 2009, 17% in fiscal year 2008, and 17% in fiscal year 2007.

Electronics and Performance Materials

Electronics and Performance Materials employs applications technology to provide solutions to a broad range of global industries through chemical synthesis, analytical technology, process engineering, and surface science. This segment provides the electronics industry with specialty gases (such as nitrogen trifluoride, silane, arsine, phosphine, white ammonia, silicon tetrafluoride, carbon tetrafluoride, hexafluoromethane, critical etch gases, and tungsten hexafluoride) as well as tonnage gases (primarily nitrogen), specialty chemicals, services, and equipment for the manufacture of silicon and compound semiconductors, thin film transistor liquid crystal displays, and photovoltaic devices. These products are delivered through various supply chain methods, including bulk delivery systems or distribution by pipelines such as those located in California s Silicon Valley; Phoenix, Arizona; Tainan, Taiwan; Gumi and Giheung, Korea; and Tianjin and Shanghai, China.

Electronics and Performance Materials also provides performance materials for a wide range of products, including coatings, inks, adhesives, civil engineering, personal care, institutional and industrial cleaning, mining, oil refining, and polyurethanes, and focuses on the development of new materials aimed at providing unique functionality to emerging markets. Principal performance materials include polyurethane catalysts and other additives for polyurethane foam, epoxy amine curing agents, and auxiliary products for epoxy systems and specialty surfactants for formulated systems.

The Electronics and Performance Materials segment uses a wide variety of raw materials, including alcohols, ethyleneamines, cyclohexylamine, acrylonitriles, and glycols. During fiscal year 2009, no significant difficulties were encountered in obtaining adequate supplies of energy or raw materials.

The Electronics and Performance Materials segment faces competition on a product-by-product basis against competitors ranging from niche suppliers with a single product to larger and more vertically integrated companies. Competition is principally conducted on the basis of price, quality, product performance, reliability of product supply, technical innovation, service, and global infrastructure.

Total sales from Electronics and Performance Materials constituted approximately 19% of the Company s consolidated sales in fiscal year 2009, 21% in fiscal year 2008, and 23% in fiscal year 2007.

Equipment and Energy

Equipment and Energy designs and manufactures cryogenic and gas processing equipment for air separation (utilizing membrane technology and adsorption technology), hydrocarbon recovery and purification, natural gas liquefaction (LNG), and helium distribution (cryogenic transportation containers), and serves energy markets in a variety of ways. Equipment is sold globally to customers in the chemical and petrochemical manufacturing, oil and gas recovery and processing, and steel and primary metals processing industries. The segment also provides a broad range of plant design, engineering, procurement, and construction management services to its customers.

Energy markets are served through the Company s operation and partial ownership of cogeneration and flue gas desulfurization facilities, its development of hydrogen as an energy carrier, and oxygen-based technologies to serve energy markets in the future. The Company owns and operates a cogeneration facility in Calvert City, Kentucky; operates and owns 50% interests in a 49-megawatt fluidized-bed coal-fired power generation facility in Stockton, California and a 24-megawatt gas-fired combined-cycle power generation facility near Rotterdam, the Netherlands; and operates and owns a 47.9% interest in a 112-megawatt gas-fueled power generation facility in Thailand. The Company also operates and owns a 50% interest in a flue gas desulphurization facility in Indiana.

Steel, aluminum, and capital equipment subcomponents (compressors, etc.) are the principal raw materials in the equipment portion of this segment. Adequate raw materials for individual projects are acquired under firm purchase agreements. Coal, petroleum coke, and natural gas are the largest cost components in the production of energy. The Company mitigates these cost components, in part, through long-term cost pass-through contracts. During fiscal year 2009, no significant difficulties were encountered in obtaining adequate supplies of raw materials.

Equipment and Energy competes with a great number of firms for all of its offerings except LNG heat exchangers, for which there are fewer competitors due to the limited market size and proprietary technologies. Competition is based primarily on technological performance, service, technical know-how, price, and performance guarantees.

The backlog of equipment orders (including letters of intent believed to be firm) from third-party customers (including equity affiliates) was approximately $239 million on 30 September 2009, approximately 75% of which is for cryogenic equipment and 13% of which is for LNG heat exchangers, as compared with a total backlog of approximately $399 million on 30 September 2008. The Company expects that approximately $203 million of the backlog on 30 September 2009 will be completed during fiscal year 2010.

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Narrative Description of the Company s Business Generally

Foreign Operations

The Company, through subsidiaries, affiliates, and minority-owned ventures, conducts business in over 40 countries outside the United States. Its international businesses are subject to risks customarily encountered in foreign operations, including fluctuations in foreign currency exchange rates and controls, import and export controls, and other economic, political, and regulatory policies of local governments.

The Company has majority or wholly owned foreign subsidiaries that operate in Canada, 17 European countries (including the United Kingdom and Spain), 10 Asian countries (including China, Korea, Singapore, and Taiwan), and four Latin American countries (including Mexico and Brazil). The Company also owns less-than-controlling interests in entities operating in Europe, Asia, Africa, the Middle East, and Latin America (including Italy, Germany, China, Korea, India, Singapore, Thailand, South Africa, and Mexico).

Financial information about the Company s foreign operations and investments is included in Notes 7, 20, and 23 to the Consolidated Financial Statements included under Item 8 herein. Information about foreign currency translation is included under Foreign Currency in Note 1, and information on the Company s exposure to currency fluctuations is included in Note 12 to the Consolidated Financial Statements included under Item 8 below and in Foreign Currency Exchange Rate Risk included under Item 7A below. Export sales from operations in the United States to unconsolidated customers amounted to $510 million, $629 million, and $677 million in fiscal years 2009, 2008, and 2007, respectively. Total export sales in fiscal year 2009 included $453 million in export sales to affiliated customers. The sales to affiliated customers were primarily equipment sales within the Equipment and Energy segment and Electronic and Performance Materials sales.

Technology Development

The Company pursues a market-oriented approach to technology development through research and development, engineering, and commercial development processes. It conducts research and development principally in its laboratories located in the United States (Trexlertown, Pennsylvania; Carlsbad, California; Milton, Wisconsin; and Phoenix, Arizona); the United Kingdom (Basingstoke, London, and Carrington); Germany (Hamburg); the Netherlands (Utrecht); Spain (Barcelona); and Asia (Tokyo, Japan; Shanghai, China; Giheung, Korea; and Hsinchu, Taiwan). The Company also funds and cooperates in research and development programs conducted by a number of major universities and undertakes research work funded by others principally the United States Government.

The Company s corporate research groups, which include science and process technology centers, support the research efforts of various businesses throughout the Company. Technology development efforts for use within Merchant Gases, Tonnage Gases, and Equipment and Energy focus primarily on new and improved processes and equipment for the production and delivery of industrial gases and new or improved applications for all such products. Research and technology development for Electronics and Performance Materials supports development of new products and applications to strengthen and extend the Company s present positions. Work is also performed in Electronics and Performance Materials to lower processing costs and develop new processes for the new products.

Research and development expenditures were $116 million during fiscal year 2009, $131 million in fiscal year 2008, and $129 million in fiscal year 2007, and the Company expended $30 million on customer-sponsored research activities during fiscal year 2009, $25 million in fiscal year 2008, and $19 million in fiscal year 2007.

As of 1 November 2009, the Company owns 993 United States patents, 2,728 foreign patents, and is a licensee under certain patents owned by others. While the patents and licenses are considered important, the Company does not consider its business as a whole to be materially dependent upon any particular patent, patent license, or group of patents or licenses.

Environmental Controls

The Company is subject to various environmental laws and regulations in the countries in which it has operations. Compliance with these laws and regulations results in higher capital expenditures and costs. From time to time, the Company is involved in proceedings under the Comprehensive Environmental Response, Compensation, and Liability Act (the federal Superfund law), similar state laws, and the Resource Conservation and Recovery Act (RCRA) relating to the designation of certain sites for investigation and possible cleanup. Additional information with respect to these proceedings is included under Item 3, Legal Proceedings, below. The Company s accounting policy for environmental expenditures is discussed in Note 1, and environmental loss contingencies are discussed in Note 16 to the Consolidated Financial Statements included under Item 8, below.

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The amounts charged to income from continuing operations on an after-tax basis related to environmental matters totaled $33 million in fiscal 2009, $31 million in 2008, and $25 million in 2007. These amounts represent an estimate of expenses for compliance with environmental laws, remedial activities, and activities undertaken to meet internal Company standards. Future costs are not expected to be materially different from these amounts.

Although precise amounts are difficult to determine, the Company estimates that in fiscal year 2009 it spent approximately $6 million on capital projects to control pollution versus $7 million in 2008. Capital expenditures to control pollution in future years are estimated at approximately $7 million in 2010 and $7 million in 2011. The cost of any environmental compliance generally is contractually passed through to the customer.

The Company accrues environmental investigatory and remediation costs for identified sites when it is probable that a liability has been incurred and the amount of loss can be reasonably estimated. The potential exposure for such costs is estimated to range from $95 million to a reasonably possible upper exposure of $109 million. The accrual on the balance sheet for 30 September 2009 was $95.0 million and for 30 September 2008 was $82.9 million. Actual costs to be incurred in future periods may vary from the estimates, given inherent uncertainties in evaluating environmental exposures. Subject to the imprecision in estimating future environmental costs, the Company does not expect that any sum it may have to pay in connection with environmental matters in excess of the amounts recorded or disclosed above would have a materially adverse effect on its financial condition or results of operations in any one year.

Employees

On 30 September 2009, the Company (including majority-owned subsidiaries) had approximately 18,900 employees, of whom approximately 18,400 were full-time employees and of whom approximately 11,400 were located outside the United States. The Company has collective bargaining agreements with unions at various locations that expire on various dates over the next four years. The Company considers relations with its employees to be satisfactory and does not believe that the impact of any expiring or expired collective bargaining agreements will result in a material adverse impact on the Company.

Available Information

All periodic and current reports, registration statements, and other filings that the Company is required to file with the Securities and Exchange Commission (SEC), including the Company s annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) of the Exchange Act (the 1934 Act Reports), are available free of charge through the Company s Internet website at www.airproducts.com. Such documents are available as soon as reasonably practicable after electronic filing of the material with the SEC. All 1934 Act Reports filed during the period covered by this report were available on the Company s website on the same day as filing.

The public may also read and copy any materials filed by the Company with the SEC at the SEC s Public Reference Room at 100 F Street, N.E., Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains an Internet site that contains reports, proxy, and information statements, and other information regarding issuers that file electronically with the SEC. The address of that site is www.sec.gov.

Seasonality

Although none of the four business segments are subject to seasonal fluctuations to any material extent, the Electronics and Performance Materials segment is susceptible to the cyclical nature of the electronics industry and to seasonal fluctuations in underlying end-use performance materials markets.

Working Capital

The Company maintains inventory where required to facilitate the supply of products to customers on a reasonable delivery schedule. Merchant Gases inventory consists primarily of industrial, medical, specialty gas, and crude helium inventories supplied to customers through liquid bulk and packaged gases supply modes. Merchant Gases inventory also includes home medical equipment to serve healthcare patients. Electronics inventories consist primarily of bulk and packaged specialty gases and chemicals and also include inventories to support sales of equipment and services. Performance Materials inventories consist primarily of bulk and packaged performance chemical solutions. The Tonnage Gases inventory is primarily Polyurethane Intermediates raw materials and finished goods; the remaining on-site plants and pipeline complexes have limited inventory. Equipment and Energy has limited inventory.

Customers

The Company does not have a homogeneous customer base or end market, and no single customer accounts for more than 10% of the Company s consolidated revenues. The Company and the Tonnage and Electronics and Performance Materials segments do have concentrations of customers in specific industries, primarily refining, chemicals, and electronics. Within each of these industries, the Company has several large-volume customers with long-term contracts. A negative trend affecting one of these industries, or the loss of one of these major customers, although not material to the Company s consolidated revenues, could have an adverse impact on the affected segment.

Governmental Contracts

No segment s business is subject to a government entity s renegotiation of profits or termination of contracts that would be material to the Company s business as a whole.

Executive Officers of the Company

The Company s executive officers and their respective positions and ages on 15 November 2009 follow. Information with respect to offices held is stated in fiscal years.

Name	Age	Office
M. Scott Crocco	45	Vice President and Corporate Controller (became Vice President in 2008; Corporate Controller in 2007; and Director of Corporate Decision Support in 2003)
Robert D. Dixon (A)	50	Senior Vice President and General Manager Merchant Gases (became Senior Vice President in 2008; Vice President and General Manager Merchant Gases in 2007; President Air Products Asia in 2003; and Vice President Air Products Asia in 2003)
Michael F. Hilton (A)	55	Senior Vice President and General Manager Electronics and Performance Materials (became Senior Vice President in 2008; Vice President and General Manager Electronics and Performance Materials in 2007; and Vice President Electronics Businesses in 2003)
Paul E. Huck (A)	59	Senior Vice President and Chief Financial Officer (became Senior Vice President in 2008; Vice President and Chief Financial Officer in 2004)
Stephen J. Jones (A)	48	Senior Vice President and General Manager, Tonnage Gases, Equipment and Energy (became Senior Vice President and General Manager, Tonnage Gases, Equipment and Energy in 2009; Senior Vice President, General Counsel and Secretary in 2008; Vice President and Associate General Counsel in 2007; and Vice President and General Manager Industrial Chemicals Division in 2003)
John E. McGlade (A)(B)(C)	55	Chairman, President, and Chief Executive Officer (became Chairman and Chief Executive Officer in 2008; President and Chief Operating Officer in 2006; Group Vice President Chemicals in 2003)
Lynn C. Minella (A)	51	Senior Vice President Human Resources and Communications (became Senior Vice President Human Resources and

Communications in 2008; Vice President Human Resources in 2004)

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Name	**Age**	**Office**
Scott A. Sherman (A)	58	Senior Vice President Strategic Development and Execution (became Senior Vice President Strategic Development and Execution in 2009; Senior Vice President in 2008; Vice President and General Manager Tonnage Gases, Equipment and Energy in 2007; and Vice President and General Manager Energy and Process Industries in 2001)
John D. Stanley (A)	51	Senior Vice President and General Counsel (became Senior Vice President and General Counsel in 2009; Assistant General Counsel, Americas and Europe in 2007; Assistant General Counsel, Corporate and Commercial in 2004)

(A) Member, Corporate Executive Committee

(B) Member, Board of Directors

(C) Member, Executive Committee of the Board of Directors

ITEM 1A. RISK FACTORS

The Company operates in over 40 countries around the world and faces a variety of risks and uncertainties that could materially affect its future operations and financial performance. Many of these risks and uncertainties are not within the Company s control. Risks that may significantly impact the Company include the following:

Overall Economic Conditions Weak general economic conditions in markets in which the Company does business may decrease the demand for its goods and services and adversely impact its revenues, operating results, and cash flow.

Demand for the Company s products and services depends in part on the general economic conditions affecting the countries and industries in which the Company does business. Currently, weak economic conditions in the U.S. and other countries and in industries served by the Company have impacted and may continue to impact demand for the Company s products and services, in turn negatively impacting the Company s revenues and earnings. Excess capacity in the Company s or its competitors manufacturing facilities could decrease the Company s ability to generate profits. Unanticipated contract terminations or project delays by current customers can also negatively impact financial results. In addition, the length and severity of the economic downturn have increased the risk of potential bankruptcy of customers and potential losses from accounts receivable.

Asset Impairments The Company may be required to record impairment on its long-lived assets.

Weak demand may cause underutilization of the Company s manufacturing capacity or elimination of product lines; contract terminations or customer shutdowns may force sale or abandonment of facilities and equipment; contractual provisions may allow customer buyout of facilities or equipment; or other events associated with weak economic conditions or specific product or customer events may require the Company to record an impairment on tangible assets, such as facilities and equipment, as well as intangible assets, such as intellectual property or goodwill, which would have a negative impact on its financial results.

Competition Inability to compete effectively in a segment could adversely impact sales and financial performance.

The Company faces strong competition from several large, global competitors and many smaller regional ones in all of its business segments. Introduction by competitors of new technologies, competing products, or additional capacity could weaken demand for or impact pricing of the Company s products, negatively impacting financial results. In addition, competitors pricing policies could materially affect the Company s profitability or its market share.

Raw Material and Energy Cost and Availability Interruption in ordinary sources of supply or an inability to recover increases in energy and raw material costs from customers could result in lost sales or reduced profitability.

Energy, including electricity, natural gas, and diesel fuel for delivery trucks, is the largest cost component of the Company s business. Because the Company s industrial gas facilities use substantial amounts of electricity, energy price fluctuations could materially impact the Company s revenues and earnings. Hydrocarbons, including natural gas, are the primary feedstock for the production of hydrogen, carbon monoxide, and synthesis gas. The Electronics and Performance Materials segment uses a wide variety of raw materials, including alcohols, ethyleneamines, cyclohexamine, acrylonitriles, and glycols. Shortages or price escalation in these materials could negatively impact financial results. A disruption in the supply of energy and raw materials, whether due to market conditions, natural events, or other disruption, could prevent the Company from meeting its contractual commitments, harming its business and financial results.

The Company typically contracts to pass through cost increases in energy and raw materials to its customers, but cost variability can still have a negative impact on its results. The Company may not be able to raise prices as quickly as costs rise, or competitive pressures may prevent full recovery. Increases in energy or raw material costs that cannot be passed on to customers for competitive or other reasons would negatively impact the Company s revenues and earnings. Even where costs are passed through, price increases can cause lower sales volume.

Regulatory Compliance The Company is subject to extensive government regulation in jurisdictions around the globe in which it does business. Changes in regulations addressing, among other things, environmental compliance, import/export restrictions, and taxes, can negatively impact the Company s operations and financial results.

The Company is subject to government regulation in the United States and foreign jurisdictions in which it conducts its business. The application of laws and regulations to the Company s business is sometimes unclear. Compliance with laws and regulations may involve significant costs or require changes in business practice that could result in reduced profitability. Determination of noncompliance can result in penalties or sanctions that could also impact financial results. Compliance with changes in laws or regulations can require additional capital expenditures or increase operating costs. Export controls or other regulatory restrictions could prevent the Company from shipping its products to and from some markets or increase the cost of doing so. Changes in tax laws and regulations and international tax treaties could affect the financial results of the Company s businesses.

Greenhouse Gases Legislative and regulatory responses to global climate change create financial risk.

Some of the Company s operations are within jurisdictions that have, or are developing, regulatory regimes governing emissions of greenhouse gases (GHG). These include existing and expanding coverage under the European Union Emissions Trading Scheme; mandatory reporting and reductions at manufacturing facilities in Alberta, Canada; and mandatory reporting and anticipated constraints on GHG emissions in California and Ontario. In addition, increased public awareness and concern may result in more international, U.S. federal, and/or regional requirements to reduce or mitigate the effects of GHG. Although uncertain, these developments could increase the Company s costs related to consumption of electric power, hydrogen production, and fluorinated gases production. The Company believes it will be able to mitigate some of the potential increased cost through its contractual terms, but the lack of definitive legislation or regulatory requirements prevents accurate estimate of the long-term impact on the Company. Any legislation that limits or taxes GHG emissions could impact the Company s growth, increase its operating costs, or reduce demand for certain of its products.

Environmental Compliance Costs and expenses resulting from compliance with environmental regulations may negatively impact the Company s operations and financial results.

The Company is subject to extensive federal, state, local, and foreign environmental and safety laws and regulations concerning, among other things, emissions in the air, discharges to land and water, and the generation, handling, treatment, and disposal of hazardous waste and other materials. The Company takes its environmental responsibilities very seriously, but there is a risk of environmental impact inherent in its manufacturing operations. Future developments and more stringent environmental regulations may require the Company to make additional unforeseen environmental expenditures. In addition, laws and regulations may require significant expenditures for environmental protection equipment, compliance, and remediation. These additional costs may adversely affect financial results. For a more detailed description of these matters, see Narrative Description of the Company s Business Generally Environmental Controls, above.

Foreign Operations, Political, and Legal Risks The Company s foreign operations can be adversely impacted by nationalization or expropriation of property, undeveloped property rights, and legal systems or political instability.

The Company s operations in certain foreign jurisdictions are subject to nationalization and expropriation risk, and some of its contractual relationships within these jurisdictions are subject to cancellation without full compensation for loss. Economic and political conditions within foreign jurisdictions, social unrest or strained relations between countries can cause fluctuations in demand, price volatility, supply disruptions, or loss of property. The occurrence of any of these risks could have a material, adverse impact on the Company s operations and financial results.

Interest Rate Increases The Company s earnings, cash flow, and financial position can be impacted by interest rate increases.

At 30 September 2009, the Company had total consolidated debt of approximately $4,501.5 million, of which approximately $785.9 million will mature in the next twelve months. The Company expects to continue to incur indebtedness to fund new projects and replace maturing debt. Although the Company actively manages its interest rate risk through the use of derivatives and diversified debt obligations, not all borrowings at variable rates are hedged, and new debt will be priced at market rates. If interest rates increase, the Company s interest expense could increase significantly, affecting earnings and reducing cash flow available for working capital, capital expenditures, acquisitions, and other purposes. In addition, changes by any rating agency to the Company s outlook or credit ratings could increase the Company s cost of borrowing.

Currency Fluctuations Changes in foreign currencies may adversely affect the Company s financial results.

A substantial amount of the Company s sales are derived from outside the United States and denominated in foreign currencies. The Company also has significant production facilities which are located outside of the United States. Financial results therefore will be affected by changes in foreign currency rates. The Company uses certain financial instruments to mitigate these effects, but it is not cost-effective to hedge foreign currency exposure in a manner that would entirely eliminate the effects of changes in foreign exchange rates on earnings, cash flows, and fair values of assets and liabilities. Accordingly, reported sales, net earnings, cash flows, and fair values have been and in the future will be affected by changes in foreign exchange rates. For a more detailed discussion of currency exposure, see Item 7A, below.

Pension Liabilities The Company s results of operations and financial condition could be negatively impacted by its U.S. and non-U.S. pension plans.

Adverse equity market conditions and volatility in the credit markets have had and may continue to have an unfavorable impact on the value of the Company s pension trust assets and its future estimated pension liabilities. As a result, the Company s financial results in any period could be negatively impacted. In addition, in a period of an extended financial market downturn, the Company could be required to provide increased pension plan funding, which could negatively impact the Company s financial flexibility. For information about potential impacts from pension funding and the use of certain assumptions regarding pension matters, see the discussion in Note 15 to the Consolidated Financial Statements included in Item 8, below.

Catastrophic Events Catastrophic events could disrupt the Company s operations or the operations of its suppliers or customers, having a negative impact on the Company s business, financial results, and cash flow.

The Company s operations could be impacted by catastrophic events outside the Company s control, including severe weather conditions such as hurricanes, floods, earthquakes, and storms; health epidemics and pandemics; or acts of war and terrorism. Any such event could cause a serious business disruption that could affect the Company s ability to produce and distribute its products and possibly expose it to third-party liability claims. Additionally, such events could impact the Company s suppliers, in which event energy and raw materials may be unavailable to the Company, or its customers may be unable to purchase or accept the Company s products and services. Any such occurrence could have a negative impact on the Company s operations and financial results.

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Operational Risks Operational and execution risks may adversely affect the Company s operations or financial results.

The Company s operation of its facilities, pipelines, and delivery systems inherently entails hazards that require continuous oversight and control, such as pipeline leaks and ruptures, fire, explosions, toxic releases, mechanical failures, or vehicle accidents. If operational risks materialize, they could result in loss of life, damage to the environment, or loss of production, all of which could negatively impact the Company s ongoing operations, financial results, and cash flow. In addition, the Company s operating results are dependent on the continued operation of its production facilities and its ability to meet customer requirements. Insufficient capacity may expose the Company to liabilities related to contract commitments. Operating results are also dependent on the Company s ability to complete new construction projects on time, on budget, and in accordance with performance requirements. Failure to do so may expose the Company to loss of revenue, potential litigation, and loss of business reputation.

Information Security The security of the Company s Information Technology systems could be compromised, which could adversely affect its ability to operate.

The Company utilizes a global enterprise resource planning (ERP) system and other technologies for the distribution of information both within the Company and to customers and suppliers. The ERP system and other technologies are potentially vulnerable to interruption from viruses, hackers, or system breakdown. To mitigate these risks, the Company has implemented a variety of security measures, including virus protection, redundancy procedures, and recovery processes. A significant system interruption, however, could materially affect the Company s operations, business reputation, and financial results.

Litigation and Regulatory Proceedings The Company s financial results may be affected by various legal and regulatory proceedings, including those involving antitrust, environmental, or other matters.

The Company is subject to litigation and regulatory proceedings in the normal course of business and could become subject to additional claims in the future, some of which could be material. The outcome of existing legal proceedings may differ from the Company s expectations because the outcomes of litigation, including regulatory matters, are often difficult to reliably predict. Various factors or developments can lead the Company to change current estimates of liabilities and related insurance receivables where applicable, or make such estimates for matters previously not susceptible to reasonable estimates, such as a significant judicial ruling or judgment, a significant settlement, significant regulatory developments, or changes in applicable law. A future adverse ruling, settlement, or unfavorable development could result in charges that could have a material adverse effect on the Company s results of operations in any particular period. For a more detailed discussion of the legal proceedings involving the Company, see Item 3, below.

Recruiting and Retaining Employees Inability to attract, retain, or develop skilled employees could adversely impact the Company s business.

Sustaining and growing the Company s business depends on the recruitment, development, and retention of qualified employees. Demographic trends and changes in the geographic concentration of global businesses have created more competition for talent. The inability to attract, develop, or retain quality employees could negatively impact the Company s ability to take on new projects and sustain its operations, which might adversely affect the Company s operations or its ability to grow.

Portfolio Management The success of portfolio management activities is not predictable.

The Company continuously reviews and manages its portfolio of assets in order to maximize value for its shareholders. Portfolio management involves many variables, including future acquisitions and divestitures, restructurings and resegmentations, and cost-cutting and productivity initiatives. The timing, impact, and ability to complete such undertakings, the costs and financial charges associated with such activities, and the ultimate financial impact of such undertakings are uncertain and can have a negative short- or long-term impact on the Company s operations and financial results.

ITEM 1B. UNRESOLVED STAFF COMMENTS

The Company has not received any written comments from the Commission staff that remain unresolved.

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ITEM 2. PROPERTIES

The Company owns its principal executive offices, which are located at its headquarters in Trexlertown, Pennsylvania, and also owns additional administrative offices in Hersham, England and in Hattingen, Germany. Its regional Asian administrative offices, which are leased, are located in Hong Kong; Shanghai, China; Taipei, Taiwan; Petaling Jaya, Malaysia; and Singapore. Additional administrative offices are leased in Ontario, Canada; Kawasaki, Japan; Seoul, Korea; Brussels, Belgium; Paris, France; Barcelona, Spain; Rotterdam, the Netherlands; and São Paulo, Brazil. Management believes the Company s manufacturing facilities, described in more detail below, are adequate to support its businesses.

Following is a description of the properties used by the Company s four business segments:

Merchant Gases

Merchant Gases currently operates over 170 facilities across the United States and in Canada (approximately 38 of which sites are owned); over 110 sites in Europe, including healthcare (approximately half of which sites are owned); and over 75 facilities in seven countries within Asia and in Brazil. Helium is recovered at sites in Kansas and Texas and distributed from several transfill sites in the United States, Europe, and Asia. Sales support offices are located at its Trexlertown headquarters, and in leased properties in three states, at all administrative sites in Europe, and at 15 sites in Asia. Research and development (R&D) activities for this segment are conducted in Trexlertown, Pennsylvania.

Tonnage Gases

Tonnage Gases operates 50 plants in the United States and Canada that produce over 300 standard tons per day of product. Over 30 of these facilities produce or recover hydrogen, many of which support the four major pipeline systems located along the Gulf Coast of Texas; on the Mississippi River corridor in Louisiana; in Los Angeles, California; and Alberta, Canada. The Tonnage Gases segment includes a facility in Pasadena, Texas that produces Polyurethane Intermediate products. The segment also operates over 30 tonnage plants in Europe and 17 tonnage plants within Asia, the majority of which are on leasehold type long-term structured agreements. Sales support offices are located at the Company s headquarters in Trexlertown, Pennsylvania and leased offices in Texas, Louisiana, California, and Calgary, Alberta in North America, as well as in Hersham, England; Rotterdam, the Netherlands; Shanghai, China; Singapore; and Doha, Qatar in the Middle East.

Electronics and Performance Materials

The electronics business within the Electronics and Performance Materials segment produces, packages, and stores nitrogen, specialty gases, and electronic chemicals at over 45 sites in the United States (the majority of which are leased), nine facilities (including sales offices) in Europe, and over 45 facilities in Asia (approximately half of which are located on customer sites).

The performance materials portion of this segment operates facilities in Los Angeles, California; Calvert City, Kentucky; Wichita, Kansas; Milton, Wisconsin; Reserve, Louisiana; Clayton, England; Singapore; Isehara, Japan; and Changzhou, China. In April 2009, S.I.Q. Beteiligungs GmbH, a German epoxy additives firm located in Marl, Germany, became an integral part of the Company s epoxy additives business. A specialty amines facility operates in Nanjing, China. Substantially all of the Performance Materials properties are owned.

This segment has six field sales offices in the United States as well as sales offices in Europe, Taiwan, Korea, Singapore, and China, the majority of which are leased. The segment conducts R&D related activities at five locations worldwide, including Hsinchu, Taiwan and Giheung, South Korea.

Equipment and Energy

Equipment and Energy operates seven manufacturing plants and two sales offices in the U.S. The Company manufactures a significant portion of the world s supply of LNG equipment at its Wilkes-Barre, Pennsylvania site. Air separation columns and cold boxes for Company-owned facilities and third-party sales are produced by operations in Acrefair in the United Kingdom; Istres, France; Caojing, China; as well as in the Wilkes-Barre facility when capacity is available. Cryogenic transportation containers for liquid helium are manufactured and reconstructed at facilities in eastern Pennsylvania and Liberal, Kansas. Offices in Hersham, England, and Shanghai, China house Equipment commercial team members.

Electric power is produced at various facilities, including Stockton, California; Calvert City, Kentucky; and Rotterdam, the Netherlands. Flue gas desulfurization operations are conducted at the Pure Air facility in Chesterton, Indiana.

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Additionally, the Company owns a 47.9% interest in a gas-fueled power generation facility in Thailand. The Company or its affiliates own approximately 50% of the real estate in this segment and lease the remaining 50%.

ITEM 3. LEGAL PROCEEDINGS

In the normal course of business, the Company and its subsidiaries are involved in various legal proceedings, including contract, product liability, intellectual property, and insurance matters. Although litigation with respect to these matters is routine and incidental to the conduct of the Company s business, such litigation could result in large monetary awards, especially if a civil jury is allowed to determine compensatory and/or punitive damages. However, the Company believes that litigation currently pending to which it is a party will be resolved without any material adverse effect on its financial position, earnings, or cash flows.

The Company is also from time to time involved in certain competition, environmental, health, and safety proceedings involving governmental authorities. The Company is a party to proceedings under the Comprehensive Environmental Response, Compensation, and Liability Act (the federal Superfund law); the Resource Conservation and Recovery Act (RCRA); and similar state environmental laws relating to the designation of certain sites for investigation or remediation. Presently there are approximately 28 sites on which a final settlement has not been reached where the Company, along with others, has been designated a Potentially Responsible Party by the Environmental Protection Agency or is otherwise engaged in investigation or remediation, including cleanup activity at certain of its manufacturing sites. The Company does not expect that any sums it may have to pay in connection with these matters would have a materially adverse effect on its consolidated financial position. Additional information on the Company s environmental exposure is included under Narrative Description of the Company s Business Generally Environmental Controls.

On 13 March 2008, the Company was notified that the U.S. Environmental Protection Agency had made a referral to the U.S. Department of Justice concerning alleged violations of the Resource Conservation and Recovery Act (RCRA) related to sulfuric acid exchange at the Company s Pasadena, Texas facility. The Department of Justice has proposed a fine related to the alleged violations. The Company has contested the allegations and the basis for the fine, but is in settlement discussions with the Department of Justice and expects to settle the matter on terms that would not be material. Any sums it may have to pay in connection with this matter would not have a materially adverse effect on its consolidated financial position or net cash flows.

During the third quarter of 2008, a unit of the Brazilian Ministry of Justice issued a report (previously issued in January 2007 and then withdrawn) on its investigation of the Company s Brazilian subsidiary, Air Products Brasil Ltda., and several other Brazilian industrial gas companies. The report recommended that the Brazilian Administrative Council for Economic Defense impose sanctions on Air Products Brasil Ltda. and the other industrial gas companies for alleged anticompetitive activities. The Company is actively defending this action and cannot, at this time, reasonably predict the ultimate outcome of the proceedings or sanctions, if any, that will be imposed. While the Company does not expect that any sums it may have to pay in connection with this or any other legal proceeding would have a materially adverse effect on its consolidated financial position or net cash flows, a future charge for regulatory fines or damage awards could have a significant impact on the Company s net income in the period in which it is recorded.

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT S COMMON EQUITY, RELATED STOCKHOLDER MATTERS, AND ISSUER PURCHASES OF EQUITY SECURITIES

The Company s common stock (ticker symbol APD) is listed on the New York Stock Exchange. Quarterly stock prices, as reported on the New York Stock Exchange composite tape of transactions, and dividend information for the last two fiscal years appear below. Cash dividends on the Company s common stock are paid quarterly. The

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Company s objective is to pay dividends consistent with the reinvestment of earnings necessary for long-term growth. It is the Company s expectation that comparable cash dividends will continue to be paid in the future.

Quarterly Stock Information

2009	High	Low	Close	Dividend
First	$ 68.51	$ 41.46	$ 50.27	$ .44
Second	60.20	43.44	56.25	.45
Third	69.93	54.73	64.59	.45
Fourth	80.60	60.52	77.58	.45
				$ 1.79

2008	High	Low	Close	Dividend
First	$ 105.02	$ 92.05	$ 98.63	$ .38
Second	98.80	80.73	92.00	.44
Third	106.06	92.20	98.86	.44
Fourth	100.14	65.05	68.49	.44
				$ 1.70

The Company has authority to issue 25,000,000 shares of preferred stock in series. The Board of Directors is authorized to designate the series and to fix the relative voting, dividend, conversion, liquidation, redemption, and other rights, preferences, and limitations. When preferred stock is issued, holders of Common Stock are subject to the dividend and liquidation preferences and other prior rights of the preferred stock. There currently is no preferred stock outstanding. The Company s Transfer Agent and Registrar is American Stock Transfer & Trust Company, 59 Maiden Lane, Plaza Level, New York, New York 10038, telephone (800) 937-5449 (U.S. and Canada) or (718) 921-8124 (all other locations), Internet website www.amstock.com, and e-mail address info@amstock.com. As of 31 October 2009, there were 8,614 record holders of the Company s common stock.

Purchases of Equity Securities by the Issuer

On 20 September 2007, the Company s Board of Directors authorized the repurchase of $1.0 billion of common stock. The program does not have a stated expiration date. As of 30 September 2009, the Company had purchased four million of its outstanding shares under this authorization at a cost of $350.8 million. There were no purchases of stock during fiscal year 2009. Additional purchases will be completed at the Company s discretion while maintaining sufficient funds for investing in its businesses and growth opportunities.

Performance Graph

The performance graph below compares the five-year cumulative returns of the Company s common stock with those of the Standard & Poor s 500 and Dow Jones Chemicals Composite Indices. The figures assume an initial investment of $100 and the reinvestment of all dividends.

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ITEM 6. SELECTED FINANCIAL DATA

(Millions of dollars, except per share)	**2009**	2008	2007	2006	2005
Operating Results					
Sales	**$ 8,256**	$ 10,415	$ 9,148	$ 7,885	$ 6,822
Cost of sales	**6,042**	7,693	6,699	5,817	4,974
Selling and administrative	**943**	1,090	1,000	892	841
Research and development	**116**	131	129	140	121
Global cost reduction plan	**298**		14	71	
Customer contract settlement			(37)		
Customer bankruptcy	**22**				
Pension settlement	**11**	30	10		
Operating income	**846**	1,496	1,376	1,042	922
Equity affiliates income	**112**	145	114	92	91
Interest expense	**122**	162	162	118	109
Income tax provision	**185**	365	287	262	231
Income from continuing operations	**640**	1,091	1,020	734	659
Net income	**631**	910	1,036	723	712
Basic earnings per common share					
Income from continuing operations	**3.05**	5.14	4.72	3.31	2.92
Net income	**3.01**	4.29	4.79	3.26	3.15
Diluted earnings per common share					
Income from continuing operations	**3.00**	4.97	4.57	3.23	2.85
Net income	**2.96**	4.15	4.64	3.18	3.08
Year-End Financial Position					
Plant and equipment, at cost	**$ 15,751**	$ 14,989	$ 14,439	$ 12,910	$ 11,915
Total assets	**13,029**	12,571	12,660	11,181	10,409
Working capital	**494**	636	436	289	471
Total debt [(A)]	**4,502**	3,967	3,668	2,846	2,490
Shareholders equity	**4,792**	5,031	5,496	4,924	4,546
Financial Ratios					
Return on average shareholders equity[(B)]	**13.3%**	20.1%	19.5%	15.1%	14.2%
Operating margin	**10.3%**	14.4%	15.0%	13.2%	13.5%
Selling and administrative as a percentage of sales	**11.4%**	10.5%	10.9%	11.3%	12.3%
Total debt to sum of total debt, shareholders equity and minority interest [(A)]	**47.7%**	43.4%	39.8%	36.3%	34.8%
Other Data					
Depreciation and amortization	**$ 840**	$ 869	$ 790	$ 705	$ 656
Capital expenditures on a GAAP basis [(C)]	**1,236**	1,159	1,553	1,358	928
Capital expenditures on a non-GAAP basis [(C)]	**1,475**	1,355	1,635	1,487	984
Cash provided by operating activities	**1,323**	1,680	1,500	1,348	1,304
Dividends declared per common share	**1.79**	1.70	1.48	1.34	1.25
Market price range per common share	**81 41**	106 65	99 66	70 53	66 52

Weighted average common shares outstanding (in millions)	**210**	212	216	222	226
Weighted average common shares outstanding assuming dilution (in millions)	**214**	219	223	228	231
Book value per common share at year-end	**$ 22.68**	$ 24.03	$ 25.52	$ 22.67	$ 20.49
Shareholders at year-end	**8,600**	8,900	9,300	9,900	10,300
Employees at year-end (D)	**18,900**	21,100	22,100	20,700	20,200

(A) Total debt includes long-term debt, current portion of long-term debt, and short-term borrowings as of the end of the year. Calculation based on continuing operations.

(B) Calculated using income and five-quarter average equity from continuing operations.

(C) Capital expenditures on a GAAP basis include additions to plant and equipment, investment in and advances to unconsolidated affiliates, and acquisitions (including long-term debt assumed in acquisitions). The Company utilizes a non-GAAP measure in the computation of capital expenditures and includes spending associated with facilities accounted for as capital leases. Certain contracts associated with facilities that are built to provide product to a specific customer are required to be accounted for as leases, and such spending is reflected as a use of cash within cash provided by operating activities. The presentation of this non-GAAP measure is intended to enhance the usefulness of information by providing a measure which the Company s management uses internally to evaluate and manage its capital expenditures. Refer to page 31 for a reconciliation of the GAAP to non-GAAP measure for

2009, 2008, and 2007. For 2006 and 2005, the GAAP measure was adjusted by $129 and $56, respectively, for spending associated with facilities accounted for as capital leases.

(D) Includes full- and part-time employees from continuing and discontinued operations.

ITEM 7. MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion should be read in conjunction with the consolidated financial statements and the accompanying notes contained in this report. 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, except as noted. All amounts are presented in millions of dollars, except for share data, unless otherwise indicated.

BUSINESS OVERVIEW

Air Products and Chemicals, Inc. and its subsidiaries (the Company) serve customers in industrial, energy, technology, and healthcare markets. The Company offers a broad portfolio of atmospheric gases, process and specialty gases, performance materials, and equipment and services. Geographically diverse, with operations in over 40 countries, the Company has sales of $8.3 billion, assets of $13.0 billion, and a worldwide workforce of approximately 18,900 employees.

The Company organizes its operations into four reportable business segments: Merchant Gases, Tonnage Gases, Electronics and Performance Materials, and Equipment and Energy.

2009 IN SUMMARY

The beginning of fiscal 2009 coincided with the start of the global financial crisis, driving the recession that led to unprecedented declines in demand for the Company s products worldwide. The downturn in the economy affected customers operating rates across most of our end markets. Globally, manufacturing declined 11%, and in Electronics, silicon processed decreased by about 35%. In response to these rapidly declining economic conditions around the world and to drive to a sustainable, low-cost structure, the Company implemented a global cost reduction plan. Impacted by these factors, the Company s sales and operating income declined 21% and 43%, respectively. Additionally, unfavorable currency impacts, due to a stronger U.S. dollar contributed to the decline.

The 2009 global cost reduction plan included the elimination of about 12% of the global workforce along with business exits and asset management actions. These initiatives lowered the Company s cost structure, especially in the second half of the year. The planned actions are expected to be completed in fiscal 2010. Also, the Company implemented price increases and executed its initiatives for cost improvement by lowering discretionary spending. Sales were sequentially higher in the fourth quarter, and there was a greater than 200 basis point increase in the Company s operating margin in the second half of the year compared to the first half. Overall, fiscal 2009 was a challenging year due to the impact of the global recession, but the actions taken by the Company helped to mitigate the adverse impact.

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Highlights for 2009

The Company implemented a global cost reduction plan designed to lower its cost structure and better align its businesses with the contracting global economy. Results from continuing operations included a total charge of $298.2 ($200.3 after-tax, or $.94 per share) for this plan.

The Company completed the divestiture of the U.S. Healthcare business.

The Company maintained a solid financial position throughout 2009. The current credit environment did not have a significant adverse impact on the Company s liquidity.

Sales of $8,256.2 declined 21%. Underlying business declined 8% from lower volumes. Lower energy and raw material cost pass-through to customers and unfavorable currency negatively impacted sales by 7% and 6%, respectively.

Operating income of $846.3 declined $649.5, principally from lower volumes, the global cost reduction plan charge, and unfavorable currency impacts.

Income from continuing operations was $639.9 as compared to $1,090.5. Diluted earnings per share from continuing operations was $3.00 as compared to $4.97. A summary table of changes in diluted earnings per share is presented below.

Loss from discontinued operations was $8.6 as compared to $180.8. The prior year included an after-tax impairment charge of $246.2 related to the U.S. Healthcare business and an after-tax gain of $76.2 from the sale of the Polymer Emulsions business.

For a discussion of the challenges, risks, and opportunities on which management is focused, refer to the Company s 2010 Outlook discussions provided throughout the Management s Discussion and Analysis that follows.

Changes in Diluted Earnings per Share

	2009	2008	Increase (Decrease)
Diluted Earnings per Share			
Net income	**$ 2.96**	$ 4.15	$ (1.19)
Discontinued operations	**(.04)**	(.82)	.78
Continuing operations	**$ 3.00**	$ 4.97	$ (1.97)
Operating Income (after-tax)			
Underlying business			
Volume			$ (1.66)
Price/raw materials			.27
Costs			.53
Currency			(.39)
2009 global cost reduction plan			(.94)
2009 customer bankruptcy and asset actions			(.10)
Pension settlement			.06
Plant fire and hurricanes			.10

Operating Income		(2.13)
Other (after-tax)		
Equity affiliates income		(.11)
Interest expense		.14
Income tax rate		(.01)
Minority interest		.04
Average shares outstanding		.10
Other		.16
Total Change in Diluted Earnings per Share from Continuing Operations	$	(1.97)

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2010 OUTLOOK

The Company projects a continued gradual and modest recovery in the economic environment as spending growth in the private sector is expected to remain weak. The Company anticipates global manufacturing growth of 1% 2% in 2010. In the U.S., growth is expected to be flat to slightly positive by 1%. Europe is expected to be flat. Asia, led by China, is expected to be the strongest region, growing at a projected 6% 7%.

Looking forward, the Company will continue to focus on improving its operating margin and return on capital through volume growth, effective cost management, and implementation of price increases. Capacity utilization rates in 2010 should improve as the economy recovers and through expansion of technology applications. Earnings should benefit from new plant startups in 2009 and 2010 along with a full-year impact of the 2009 global cost reduction plan. The Company will also remain diligent on discretionary spending, new programs, and staffing. However, pension expense will be higher next year as a result of a decline in the discount rates used to determine the 2010 expense.

Outlook by Segment

The Company is projecting Merchant Gases results to be higher based on a modest recovery in global manufacturing. Margins should improve based on higher volumes and cost reduction efforts. In 2009, the segment took steps to restructure the organization and to reduce costs in order to drive productivity and growth.

Tonnage Gases is expected to benefit from new contracts and plants coming on-stream, and increased capacity utilization as chemical and steel markets continue to recover.

In Electronics, the Company projects silicon growth of 10% 15%, higher demand from flat panel producers, and accelerated growth in thin film photovoltaic. The business repositioning efforts should result in additional ongoing restructuring costs, while price pressure for certain electronics materials is expected to remain until capacity utilization improves. Growth is anticipated in Performance Materials as the Company should continue to benefit from new market and application successes, regional investment, and new product introductions.

Equipment and Energy results are expected to be comparable to 2009 levels. Two to three LNG orders are expected to be signed in fiscal 2010.

RESULTS OF OPERATIONS

Discussion of Consolidated Results

	2009	2008	2007
Sales	**$ 8,256.2**	$ 10,414.5	$ 9,148.2
Operating income	**846.3**	1,495.8	1,375.6
Equity affiliates income	**112.2**	145.0	114.4

Sales

	% Change from Prior Year	
	2009	2008
Underlying business		
Volume	**(9)%**	2%
Price	**1%**	2%
Acquisitions/divestitures		1%
Currency	**(6)%**	4%
Energy and raw material cost pass-through	**(7)%**	5%

Total Consolidated Sales Change	**(21)%**	14%

2009 vs. 2008

Sales of $8,256.2 decreased 21%, or $2,158.3. Underlying business declined 8%, due to lower volumes primarily in Electronics and Performance Materials, Merchant Gases, and Tonnage Gases. Volumes were impacted by the severity of the worldwide manufacturing downturn and a significant decline in silicon processed. Currency unfavorably impacted sales by 6%, due primarily to the strengthening of the U.S. dollar against key European and Asian currencies. Lower energy and raw material contractual cost pass-through to customers reduced sales by 7%.

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2008 vs. 2007

Sales of $10,414.5 increased 14%, or $1,266.3. Underlying base business growth accounted for 4% of the increase. Sales increased 2% as higher volumes in Electronics and Performance Materials, Merchant Gases, and Tonnage Gases were partially offset by lower Equipment and Energy activity. Improved pricing, principally in Merchant Gases, increased sales by 2%. Sales improved 4% from favorable currency effects, primarily the weakening of the U.S. dollar against the Euro. Higher energy and raw material contractual cost pass-through to customers increased sales by 5%.

Operating Income

2009 vs. 2008

Operating income of $846.3 decreased 43%, or $649.5.

The global cost reduction plan charge reduced operating income by $298.

Underlying business declined $254, due primarily to lower volumes in the Merchant Gases, Electronics and Performance Materials, and Tonnage Gases segments. The volume declines of $490 were partially offset by favorable cost performance of $157 and improved pricing of $79.

Unfavorable currency impacts lowered operating income by $113, reflecting the strengthening of the U.S. dollar against key European and Asian currencies.

The write-off of certain receivables due to a customer bankruptcy and asset actions reduced operating income by $32.

Lower pension settlement charges favorably impacted operating income by $20.

Prior year operating income included unfavorable impacts of $28 due to hurricanes and a fire at a production facility.

2008 vs. 2007

Operating income of $1,495.8 increased 9%, or $120.2.

Higher volumes in the Merchant Gases, Tonnage Gases, and Electronics and Performance Materials segments, partially offset by a decrease in Equipment and Energy activity, increased operating income by $82.

Improved pricing, net of variable costs, increased operating income by $21, as pricing increases in Merchant Gases were partially offset by lower pricing in electronics specialty materials.

Favorable currency effects, primarily the weakening of the U.S. dollar against the Euro, increased operating income by $80.

2007 included a gain of $37 from a settlement of a supply contract termination.

Higher pension settlement charges negatively impacted operating income by $20.

Unfavorable impacts caused by Hurricanes Gustav and Ike, and the fire at an Electronics production facility in Korea, decreased operating income by $28.

Equity Affiliates   Income

2009 vs. 2008

Income from equity affiliates of $112.2 decreased $32.8, or 23%, primarily as a result of lower overall volumes and unfavorable currency. Additionally, prior year results included favorable adjustments made to certain affiliates in Asia and the reversal of an antitrust fine.

2008 vs. 2007

Income from equity affiliates of $145.0 increased $30.6, or 27%. This increase resulted from solid underlying growth, increased nitrogen injection volumes in Mexico, the benefit of adjustments to certain affiliates, and the reversal of an antitrust fine.

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Selling and Administrative Expense (S&A)

2009 vs. 2008

S&A expense of $943.4 decreased $147.0, or 13%. Underlying costs decreased 8%, primarily due to improved productivity as well as the impact of the global cost reduction plan, lower incentive compensation costs, and lower discretionary spending. This decrease was partially offset by inflation and higher bad debt expense. Favorable currency impacts, primarily the strengthening of the dollar against the Euro and Pound Sterling, decreased S&A by 6%. The acquisition of CryoService Limited in the third quarter of 2008 increased S&A by 1%. S&A as a percent of sales, increased to 11.4% from 10.5%, due principally to the impact of lower energy and raw material cost pass-through on sales.

2008 vs. 2007

S&A expense of $1,090.4 increased 9%, or $90.6. S&A increased 2% from the acquisition of the Polish industrial gas business of BOC Gazy Sp z o.o. (BOC Gazy) in the third quarter of 2007. Currency effects, driven by the weakening of the U.S. dollar against the Euro, increased S&A by 4%. Underlying costs increased S&A by 3%, as productivity gains were more than offset by inflation and higher costs to support growth. S&A as a percent of sales declined to 10.5% from 10.9%.

2010 Outlook

S&A expense for 2010 will reflect higher pension expense and modest cost inflation. These increases should be offset by cost savings arising from the benefits of the global cost reduction plan initiated in 2009 and ongoing productivity initiatives.

Research and Development (R&D)

2009 vs. 2008

R&D expense of $116.3 decreased $14.4, primarily due to the impact of cost reduction actions. R&D increased as a percent of sales to 1.4% from 1.3%.

2008 vs. 2007

R&D expense of $130.7 increased $1.7. R&D decreased as a percent of sales to 1.3% from 1.4%.

2010 Outlook

R&D expense is expected to be moderately higher in 2010.

Global Cost Reduction Plan

2009

The 2009 results from continuing operations included a total charge of $298.2 ($200.3 after-tax, or $.94 per share) for the global cost reduction plan. In the first quarter of 2009, the Company announced the global cost reduction plan, designed to lower its cost structure and better align its businesses to reflect rapidly declining economic conditions around the world. In the third quarter of 2009, due to the continuing slow economic recovery, the Company committed to additional actions associated with its global cost reduction plan. The 2009 charge included $210.0 for severance and other benefits, including pension-related costs, associated with the elimination of approximately 2,550 positions from the Company s global workforce. The remainder of this charge, $88.2, was for business exits and asset management actions.

Cost savings of approximately $50 were realized in 2009, and cost savings of approximately $155 are expected for 2010. Beyond 2010, the Company expects annualized savings of approximately $180, of which the majority is related to personnel costs.

2007

The 2007 results from continuing operations included a charge of $13.7 ($8.8 after-tax, or $.04 per share) for a global cost reduction plan. The charge included $6.5 for severance and pension-related costs for the elimination of approximately 125 positions and $7.2 for the write-down of certain investments. As of 30 September 2008, the actions associated with the 2007 charge were complete.

Refer to Note 3 to the Consolidated Financial Statements for additional information on these charges.

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2007 Customer Contract Settlement

In 2007, the Company entered into a settlement with a customer to resolve a dispute related to a dinitrotoluene (DNT) supply agreement. As part of the settlement agreement, the DNT supply agreement was terminated, and certain other agreements between the companies were amended. As a result, the Company recognized a before-tax gain of $36.8 ($23.6 after-tax, or $.11 per share).

2009 Customer Bankruptcy and Asset Actions

In 2009, the Company recognized charges totaling $32.1 ($21.0 after-tax, or $.10 per share) related to a customer bankruptcy and asset actions for the closure of certain manufacturing facilities. Refer to Note 21 to the Consolidated Financial Statements for additional information.

Pension Settlement

The Company s supplemental pension plan provides for a lump sum benefit payment option at the time of retirement, or for corporate officers, six months after the participant s retirement date. A settlement loss is recognized when the pension obligation is settled. Based on the timing of when cash payments were made, the Company recognized $10.7, $30.3, and $10.3 of settlement charges in 2009, 2008, and 2007, respectively. Refer to Note 15 to the Consolidated Financial Statements for additional information.

Other Income, Net

Items recorded to other income arise from transactions and events not directly related to the principal income earning activities of the Company. The detail of other income is presented in Note 21 to the Consolidated Financial Statements.

2009 vs. 2008

Other income of $23.0 decreased by $2.8. Other income declined due to losses from asset sales in the current year and unfavorable foreign exchange. Other income in 2008 included a loss related to fire damage at a production facility. No other items were individually significant in comparison to the prior year.

2008 vs. 2007

Other income of $25.8 decreased by $16.5. Other income in 2008 included a loss of $14.7 related to fire damage at an Electronics production facility in Korea, partially offset by favorable foreign exchange of $8.1. Other income in 2007 included a gain of $23.7 on the sale of assets. No other items were individually significant in comparison to the prior year.

Interest Expense

	2009	2008	2007
Interest incurred	**$ 143.8**	$ 184.1	$ 175.3
Less: Capitalized interest	**21.9**	22.1	12.9
Interest Expense	**$ 121.9**	$ 162.0	$ 162.4

2009 vs. 2008

Interest incurred decreased by $40.3. This decrease was primarily driven by lower average interest rates on variable rate debt. The impact of a stronger dollar on the translation of foreign currency interest was offset by a higher average debt balance. Capitalized interest was comparable to the prior year due to slightly higher project levels offset by lower average interest rates.

2008 vs. 2007

Interest incurred increased by $8.8. The increase resulted from a higher average debt balance, excluding currency effects, and the impact of a weaker U.S. dollar on the translation of foreign currency interest, partially offset by lower average interest rates. Capitalized interest increased by $9.2, primarily due to increased project levels in the Tonnage Gases segment.

2010 Outlook

The Company expects interest incurred to be modestly higher. This increase is expected to result from a higher average debt balance and higher expected average interest rates.

Effective Tax Rate

The effective tax rate equals the income tax provision divided by income from continuing operations before taxes, less minority interest. Refer to Note 20 to the Consolidated Financial Statements for details on factors affecting the effective tax rate.

2009 vs. 2008

The effective tax rate was 22.5% and 25.1% in 2009 and 2008, respectively. The effective tax rate declined, as tax credits had a higher relative impact due to lower book taxable income.

2008 vs. 2007

The effective tax rate was 25.1% and 22.0% in 2008 and 2007, respectively. A tax benefit associated with foreign operations and other higher credits and adjustments from the Company s ongoing tax planning process were included in the 2008 effective rate. The 2007 tax rate included the settlement of tax audits and related interest income, combined with the donation of a portion of a cost-based investment. The net impact was a 3.1% higher tax rate in 2008.

2010 Outlook

The Company expects the effective tax rate in 2010 to be approximately 25.5% to 26.0%.

Discontinued Operations

The U.S. Healthcare business, Polymer Emulsions business, and High Purity Process Chemicals (HPPC) business have been accounted for as discontinued operations. The results of operations of these businesses have been removed from the results of continuing operations for all periods presented. Refer to Note 4 to the Consolidated Financial Statements for additional details.

U.S. Healthcare

In July 2008, the Board of Directors authorized management to pursue the sale of the U.S. Healthcare business. In 2008, the Company recorded a total charge of $329.2 ($246.2 after-tax, or $1.12 per share) related to the impairment/write-down of the net carrying value of the U.S. Healthcare business.

In the first half of 2009, based on additional facts, the Company recorded an impairment charge of $48.7 ($30.9 after-tax, or $.15 per share), reflecting a revision in the estimated net realizable value of the business. Also, tax benefits of $25.5, or $.12 per share, were recorded to revise the estimated tax benefit associated with the total impairment charges recorded.

During the third quarter of 2009, the Company sold more than half of its remaining U.S. Healthcare business to OptionCare Enterprises, Inc., a subsidiary of Walgreen Co., and Landauer-Metropolitan, Inc. (LMI) for combined cash proceeds of $38.1. The Company recognized an after-tax gain of $.3 resulting from these sales combined with adjustments to the net realizable value of the remaining businesses.

During the fourth quarter of 2009, through a series of transactions with Rotech Healthcare, Inc. and with LMI, the Company sold its remaining U.S. Healthcare business for cash proceeds of $12.1. A net after-tax loss of $.7 was recognized. These transactions completed the disposal of the U.S. Healthcare business.

The U.S. Healthcare business generated sales of $125.2, $239.8, and $271.1, and a loss from operations, net of tax, of $3.4, $259.4, and $15.2 in 2009, 2008, and 2007, respectively. The loss from operations in 2008 included an after-tax impairment charge of $237.0.

Polymer Emulsions Business

On 31 January 2008, the Company closed on the sale of its interest in its vinyl acetate ethylene (VAE) polymers joint ventures to Wacker Chemie AG, its long-time joint venture partner. As part of that agreement, the Company received Wacker Chemie AG s interest in the Elkton, Md. and Piedmont, S.C. production facilities. The Company recognized a gain on the sale of $89.5 ($57.7 after-tax, or $.26 per share).

On 30 June 2008, the Company sold its Elkton, Md. and Piedmont, S.C. production facilities and the related North American atmospheric emulsions and global pressure sensitive adhesives businesses to Ashland, Inc. The Company recorded a gain of $30.5 ($18.5 after-tax, or $.08 per share) in connection with the sale, which included the recording of a retained environmental obligation associated with the Piedmont site. The sale of the Elkton and Piedmont facilities completed the disposal of the Company s Polymer Emulsions business.

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The Polymer Emulsion business generated sales of $261.4 and $618.6, and income from operations, net of tax, of $11.3 and $38.3 in 2008 and 2007, respectively.

HPPC Business

In 2008, the Company sold its HPPC business to KMG Chemicals, Inc. The Company wrote down the assets of the business to net realizable value as of 30 September 2007, resulting in a loss of $15.3 ($9.3 after-tax, or $.04 per share). The sale closed on 31 December 2007, and an additional loss on the sale was recorded of $.5 ($.3 after-tax) in 2008. The HPPC business generated sales of $22.9 and $87.2 and income from operations, net of tax, of $.1 and $2.2 in 2008 and 2007, respectively.

Net Income

2009 vs. 2008

Net income was $631.3, compared to $909.7 in 2008. Diluted earnings per share was $2.96 compared to $4.15 in 2008. A summary table of changes in diluted earnings per share is presented on page 18.

2008 vs. 2007

Net income was $909.7, compared to $1,035.6 in 2007. Diluted earnings per share was $4.15, compared to $4.64 in 2007.

Segment Analysis

Merchant Gases

	2009	2008	2007
Sales	**$ 3,610.6**	$ 4,192.7	$ 3,556.9
Operating income	**661.2**	789.5	656.4
Equity affiliates income	**98.3**	131.8	97.8

Merchant Gases Sales

	% Change from Prior Year	
	2009	2008
Underlying business		
Volume	**(9)%**	4%
Price	**4%**	4%
Acquisitions/divestitures		3%
Currency	**(9)%**	7%
Total Merchant Gases Sales Change	**(14)%**	18%

2009 vs. 2008

Merchant Gases Sales

Sales of $3,610.6 decreased by 14%, or $582.1. Sales decreased 9% from unfavorable currency effects, driven primarily by the strengthening of the U.S. dollar against key European and Asian currencies. Underlying sales declined 5%, with volumes down 9% and pricing up 4%. Volumes were weak across manufacturing end markets globally. Price increases implemented early in the year were effective, partially offsetting the decline in volume.

The global recession significantly impacted manufacturing-related demand for Merchant industrial gases in every region. In North America, sales decreased 10%, with volumes down 14%. Higher pricing of 4% partially offset the decline in volumes. In Europe, sales decreased 17%, primarily due to unfavorable currency impacts of 13%. Underlying sales declined 4%, with volumes down 8% and pricing adding 4%. Stronger healthcare volumes partially offset the total volume decline. In Asia, sales declined 13%. Underlying sales were lower by 6%, with volumes declining 8% and pricing adding 2%. Currency unfavorably impacted sales by 7%.

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Merchant Gases Operating Income

Operating income of $661.2 decreased 16%, or $128.3. The decline was due to reduced volumes of $234 and unfavorable currency impacts of $74. These declines were partially offset by improved pricing, net of variable costs, of $102 and improved cost performance of $78, primarily due to cost reduction efforts.

Merchant Gases Equity Affiliates Income

Merchant Gases equity affiliates income of $98.3 decreased 25%, or $33.5. The decline was a result of lower overall volumes and unfavorable currency. Additionally, prior year results included favorable adjustments made to certain affiliates in Asia and the reversal of an antitrust fine.

2008 vs. 2007

Merchant Gases Sales

Sales of $4,192.7 increased 18%, or $635.8. Higher volumes across all regions increased sales by 4%. Volumes increased in North America due to record new signings in 2008 and continued strong demand for liquid oxygen (LOX) and liquid nitrogen (LIN). Volume gains in Europe were primarily due to a higher number of Healthcare patients served. In Asia, volumes were higher in generated gases, liquid argon, and liquid helium.

Higher prices increased sales by 4% as a result of actions taken to recover higher power, distribution, and other manufacturing costs in North America and Europe.

Sales increased by 3% from the full-year impact of the acquisition of BOC Gazy in 2007. In addition, sales increased 7% due to favorable currency impacts, primarily the weakening of the U.S. dollar against the Euro.

Merchant Gases Operating Income

Operating income of $789.5 increased by 20%, or $133.1. Favorable operating income variances resulted from improved pricing of $75, higher volumes of $60, and currency effects of $51. Operating income declined by $49 from higher distribution costs and inflation.

Merchant Gases Equity Affiliates Income

Equity affiliates income of $131.8 increased 35%, or $34.0, reflecting higher income in all regions. The increases were due to solid underlying growth, increased nitrogen injection volumes in Mexico, and the benefit of adjustments to certain affiliates in Asia and the reversal of an antitrust fine.

Tonnage Gases

	2009	2008	2007
Sales	**$ 2,573.6**	$ 3,574.4	$ 2,936.7
Operating income	**399.6**	482.6	426.4

Tonnage Gases Sales

	% Change from Prior Year	
	2009	2008
Underlying business		
Volume	**(5)%**	2%
Acquisitions/divestitures		1%
Currency	**(4)%**	3%
Energy and raw material cost pass-through	**(19)%**	16%
Total Tonnage Gases Sales Change	**(28)%**	22%

2009 vs. 2008

Tonnage Gases Sales

Sales of $2,573.6 decreased 28%, or $1,000.8. Lower energy and raw material contractual cost pass-through to customers reduced sales by 19%. Volumes were down 5%. While refinery hydrogen volumes were higher, overall volumes declined from reduced demand from steel and chemical customers. Currency unfavorably impacted sales by 4%.

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Tonnage Gases Operating Income

Operating income of $399.6 decreased 17%, or $83.0. Underlying business declined $70, primarily from decreased volumes and lower operating efficiencies. Currency unfavorably impacted operating income by $24. Prior year included unfavorable hurricane related impacts of $11.

2008 vs. 2007

Tonnage Gases Sales

Sales of $3,574.4 increased 22%, or $637.7. Higher energy and raw material cost pass-through accounted for 16% of sales growth in 2008. Volume growth in the underlying business increased sales by 4%, primarily due to new plant start-ups in Asia and Canada, offset by a decline of 2% due to the impacts from hurricane-related business interruption. The acquisition of BOC Gazy in the third quarter of 2007 improved sales by 1%. Sales increased 3% from favorable currency effects, primarily the weakening of the U.S. dollar against the Euro.

Tonnage Gases Operating Income

Operating income of $482.6 increased 13%, or $56.2. Operating income increased by $20 from higher volumes, $9 from favorable currency effects, and $30 from lower operating costs. Operating income decreased by $11 as a result of hurricane-related impacts.

Electronics and Performance Materials

	2009	2008	2007
Sales	**$ 1,582.2**	$ 2,209.3	$ 2,068.7
Operating income	**101.6**	245.9	229.2

Electronics and Performance Materials Sales

	% Change from Prior Year	
	2009	2008
Underlying business		
Volume	**(25)%**	5%
Price	**(2)%**	
Acquisition/divestiture	**1%**	
Currency	**(2)%**	2%
Total Electronics and Performance Materials Sales Change	**(28)%**	7%

2009 vs. 2008

Electronics and Performance Materials Sales

Sales of $1,582.2 declined 28%, or $627.1, as volumes declined 25%. Sales volumes declined significantly in the first half of 2009 and recovered sequentially in the second half. In Electronics, sales were down 35%, reflecting a significant global downturn in semiconductor and flat panel capacity utilization and capital investment. In Performance Materials, sales were down 19% due to weaker demand across all end markets, partially offset by improved pricing.

Electronics and Performance Materials Operating Income

Operating income of $101.6 declined by 59%, or $144.3. Operating income declined from lower volumes of $202 as well as unfavorable pricing of $37. Lower pricing in Electronics was partially offset by higher pricing in Performance Materials. Favorable cost performance added $82, primarily due to cost reduction efforts. Results in 2008 included $15 of unfavorable impacts associated with a fire at a production facility.

2008 vs. 2007

Electronics and Performance Materials Sales

Sales of $2,209.3 increased 7%, or $140.6. Underlying base business growth increased sales by 5%. In Electronics, higher volumes in specialty materials and tonnage gases were partially offset by lower equipment sales and softer volumes due to product rationalization. Higher volumes across Asia and in some key market segments in North America increased sales in Performance Materials. Pricing was flat, as improvements in Performance Materials were offset by lower pricing in electronic specialty materials. Favorable currency effects, primarily the weakening of the U.S. dollar against key European and Asian currencies, improved sales by 2%.

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Electronics and Performance Materials Operating Income

Operating income of $245.9 increased 7%, or $16.7. Operating income increased $48 from higher volumes, $19 from lower operating costs, and $18 from favorable currency effects, partially offset by property damage of $15 caused by a fire at an Electronics production facility in Korea. Operating income also declined by $51 from lower electronic specialty materials pricing, net of variable costs.

Equipment and Energy

	2009	2008	2007
Sales	**$ 489.8**	$ 438.1	$ 585.9
Operating income	**42.2**	38.9	76.8

2009 vs. 2008

Sales of $489.8 increased by 12%, or $51.7, due to higher air separation unit (ASU) activity. Operating income improved $3.3 from favorable cost performance and higher ASU sales, partially offset by lower liquefied natural gas (LNG) heat exchanger activity and unfavorable currency.

The sales backlog for the Equipment business at 30 September 2009 was $239, compared to $399 at 30 September 2008. It is expected that approximately $203 of the backlog will be completed during 2010.

2008 vs. 2007

Sales of $438.1 decreased by 25%, or $147.8, primarily from lower LNG activity and a one-time energy-related equipment sale that occurred in 2007. Operating income of $38.9 decreased by $37.9, primarily from lower LNG heat exchanger activity.

The sales backlog for the Equipment business at 30 September 2008 was $399, compared to $258 at 30 September 2007.

Other

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

	2009	2008	2007
Operating (loss)	**$ (17.3)**	$ (30.8)	$ (26.0)

2009 vs. 2008

Operating loss of $17.3 decreased by $13.5. The decrease is primarily due to favorable LIFO inventory adjustments versus the prior year. Unfavorable currency partially offset this decline. No other items were individually significant in comparison to the prior year.

2008 vs. 2007

Operating loss of $30.8 increased by $4.8. No items were individually significant in comparison to the prior year.

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PENSION BENEFITS

The Company and certain of its subsidiaries sponsor defined benefit pension plans that cover a substantial portion of its worldwide employees. The principal defined benefit pension plans the U.S. Salaried Pension Plan and the U.K. Pension Plan were closed to new participants in 2005 and were replaced with defined contribution plans. The move to defined contribution plans has not had a material impact on retirement program cost levels or funding. Over the long run, however, the new defined contribution plans are expected to reduce volatility of both expense and contributions. For 2009, the fair market value of pension plan assets for the Company s defined benefit plans as of the measurement date increased to $2,251.0 from $2,218.2 in 2008. The projected benefit obligation for these plans as of the measurement date was $3,386.0 and $2,731.7 in 2009 and 2008, respectively. The increase in the obligation was due principally to a decrease in the weighted average discount rate used to measure future benefit obligations to 5.6% from 7.1%. Refer to Note 15 to the Consolidated Financial Statements for comprehensive and detailed disclosures on the Company s postretirement benefits.

Pension Expense

	2009	2008	2007
Pension expense	**$ 110.0**	$ 127.0	$ 138.5
Special terminations, settlements, and curtailments (included above)	**43.8**	31.5	12.3
Weighted average discount rate	**7.1%**	6.1%	5.7%
Weighted average expected rate of return on plan assets	**8.3%**	8.8%	8.8%
Weighted average expected rate of compensation increase	**4.3%**	4.2%	4.1%

2009 vs. 2008

The decrease in pension expense was primarily attributable to the 100 basis point increase in the weighted average discount rate. Expense in 2009 included $43.8 of special termination, settlement, and curtailment charges, of which $32.3 was related to the global cost reduction plan.

2008 vs. 2007

The decrease in pension expense was primarily attributable to the 40 basis point increase in the weighted average discount rate. Expense included $31.5 in 2008 and $12.3 in 2007 for special termination, settlement, and curtailment charges.

2010 Outlook

Pension expense is estimated to be approximately $125 in 2010, an increase of $15. Expense in 2009 included $43.8 of special termination, settlement, and curtailment charges. In 2010, pension expense will include approximately $64 for amortization of actuarial losses versus $17 in 2009. Actuarial losses of $739.2 were incurred in 2009, resulting primarily from a lower discount rate used to determine the 2010 expense and actual asset returns below expected returns. Actuarial gains/losses, in excess of certain thresholds, are amortized into pension expense over the average remaining service lives of the employees to the extent they are not offset by future gains or losses. Future changes in the discount rate and actual returns on plan assets, different from expected returns, would impact the actuarial gains/losses and resulting amortization in years beyond 2010.

Pension Funding

Pension funding includes both contributions to funded plans and benefit payments under unfunded plans. With respect to funded plans, the Company s funding policy is that contributions, combined with appreciation and earnings, will be sufficient to pay benefits without creating unnecessary surpluses.

In addition, the Company makes contributions to satisfy all legal funding requirements while managing its capacity to benefit from tax deductions attributable to plan contributions. The Company analyzes the liabilities and demographics of each plan, which help guide the level of contributions. During 2009 and 2008, the Company s cash contributions to funded plans and benefit payments under unfunded plans were $184.8 and $234.0, respectively. The majority of the cash contributions were voluntary.

Cash contributions and benefit payments for defined benefit plans are estimated to be approximately $360 in 2010. Of this amount, $200 has been contributed in October 2009. Actual future contributions will depend on future funding legislation, discount rates, investment performance, plan design, and various other factors. Refer to the Contractual Obligations discussion on page 33 for a projection of future contributions.

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ENVIRONMENTAL MATTERS

The Company is subject to various environmental laws and regulations in the countries in which it has operations. Compliance with these laws and regulations results in higher capital expenditures and costs. From time to time, the Company is involved in proceedings under the Comprehensive Environmental Response, Compensation and Liability Act (the federal Superfund law), similar state laws, and the Resource Conservation and Recovery Act (RCRA) relating to the designation of certain sites for investigation and possible cleanup. The Company s accounting policy for environmental expenditures is discussed in Note 1 to the Consolidated Financial Statements, and environmental loss contingencies are discussed in Note 16 to the Consolidated Financial Statements.

The amounts charged to income from continuing operations on an after-tax basis related to environmental matters totaled $32.6, $31.0, and $25.1 in 2009, 2008, and 2007, respectively. These amounts represent an estimate of expenses for compliance with environmental laws, remedial activities, and activities undertaken to meet internal Company standards. Future costs are not expected to be materially different from these amounts.

Although precise amounts are difficult to determine, the Company estimates that in 2009, it spent approximately $6 on capital projects to control pollution versus $7 in 2008. Capital expenditures to control pollution in future years are estimated to be approximately $7 in both 2010 and 2011.

The Company accrues environmental investigatory and remediation costs for identified sites when it is probable that a liability has been incurred and the amount of loss can be reasonably estimated. The potential exposure for such costs is estimated to range from $95 to a reasonably possible upper exposure of $109. The balance sheet at 30 September 2009 and 2008 included an accrual of $95.0 and $82.9, respectively. The accrual for the environmental obligations relating to the Pace, Florida; Piedmont, South Carolina; and the Paulsboro, New Jersey facilities is included in these amounts. Refer to Note 16 to the Consolidated Financial Statements for further details on these facilities.

Actual costs to be incurred at identified sites in future periods may vary from the estimates, given inherent uncertainties in evaluating environmental exposures. Subject to the imprecision in estimating future environmental costs, the Company does not expect that any sum it 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 its financial position or results of operations in any one year.

Some of the Company s operations are within jurisdictions that have, or are developing, regulations governing emissions of greenhouse gases (GHGs). These include existing and expanding coverage under the European Union Emissions Trading Scheme; mandatory reporting and reductions at manufacturing facil