UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

**FOR ANNUAL AND TRANSITION REPORTS
PURSUANT TO SECTIONS 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934**

(Mark One) [**X**] **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended 30 September 2004

OR

[ ] **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from _________ to _________

Commission file number 1-4534

AIR PRODUCTS AND CHEMICALS, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware (State or Other Jurisdiction of Incorporation or Organization)	23-1274455 (IRS Employer Identification No.)
7201 Hamilton Boulevard, Allentown, Pennsylvania (Address of Principal Executive Offices)	18195-1501 (Zip Code)

Registrant's telephone number, including area code **(610) 481-4911**

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

Title of Each Class	Name of Each Exchange on Which Registered
Common Stock, par value $1.00 per share	New York and Pacific
Preferred Stock Purchase Rights	New York and Pacific
8¾ % Debentures Due 2021	New York

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 [**X**] NO [ ]

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K 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 amendments to this Form 10-K. [**X**]

Indicate by check mark whether the registrant is an accelerated filer (as defined in Exchange Act Rule 12b-2). YES [**X**] NO [ ]

The aggregate market value of the voting stock held by non-affiliates of the registrant on 31 March 2004 was $11.3 billion. For purposes of the foregoing calculations (i) 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 and (ii) registrant's grantor trust, described under Item 12 of this Report, is deemed a non-affiliate.

The number of shares of Common Stock outstanding as of 1 December 2004 was 227,309,877.

DOCUMENTS INCORPORATED BY REFERENCE

Annual Report to Shareholders for the fiscal year ended 30 September 2004. With the exception of those portions that are incorporated by reference into Parts I, II, and IV of this Form 10-K, the Annual Report is not deemed to be filed.

Proxy Statement for Annual Meeting of Shareholders to be held 27 January 2005 . . . Part III.

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FORWARD-LOOKING STATEMENTS

The forward-looking statements contained in this document are based on current expectations at the time the document was originally prepared regarding important risk factors. Management does not anticipate publicly updating any of its expectations except as part of the quarterly earnings announcement process.

Actual results may differ materially from those forward-looking statements expressed. In addition to important risk factors and uncertainties referred to in the Management's Discussion and Analysis, which is included under Item 7 herein, factors that might cause forward-looking statements to differ materially from actual results include those specifically referenced as future events or outcomes that the Company anticipates, as well as, among other things, overall economic and business conditions different than those currently anticipated and demand for the Company's goods and services during that time; competitive factors in the industries in which it competes; interruption in ordinary sources of supply; the ability to recover increased energy and raw material costs from customers; uninsured litigation judgments or settlements; spikes in the pricing of natural gas; changes in government regulations; consequences of acts of war or terrorism impacting the United States and other markets; charges related to currently unplanned portfolio management and cost reduction actions; the success of implementing cost reduction programs; the timing, impact, and other uncertainties of future acquisitions or divestitures; significant fluctuations in interest rates and foreign currencies from that currently anticipated; the impact of tax and other legislation and regulations in jurisdictions in which the Company and its affiliates operate; and the timing and rate at which tax credits can be utilized.

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PART I

ITEM 1. Business.

Through internal development and by acquisitions, Air Products and Chemicals, Inc. has established an internationally recognized industrial gas and related industrial process equipment business and developed strong positions as a producer of certain chemicals.

The gases business segment recovers and distributes industrial gases such as oxygen, nitrogen, helium, argon, and hydrogen, and a variety of medical and specialty gases, and also includes the Company's healthcare business. The chemicals business segment produces and markets performance materials and chemical intermediates. The equipment business segment supplies cryogenic and other process equipment and related engineering services.

Financial information concerning the Company's business segments appears in Note 21 to the Consolidated Financial Statements included under Item 8 herein, which information is incorporated herein by reference, as are all other specific references herein to information appearing in such 2004 Financial Review Section of the Annual Report.

As used in this Report, the term "Air Products" or "Company" includes subsidiaries and predecessors of the registrant or its subsidiaries, unless the context indicates otherwise.

GASES

The principal industrial gases sold by the Company are oxygen, nitrogen, argon (primarily recovered by the cryogenic distillation of air), hydrogen, carbon monoxide, carbon dioxide (purchased, purified, or recovered through the processing of natural gas or the by-product streams from process plants), synthesis gas (combined streams of hydrogen and carbon monoxide), and helium (purchased or refined from crude helium). Medical and specialty gases (which include fluorine products; rare gases such as xenon, krypton, and neon; and more common gases of high purity) are manufactured or precisely blended by the Company or purchased for resale. The gases segment also includes the Company's electronics business, global healthcare, power generation, and flue gas treatment businesses.

The Company's gas business involves three principal modes of supply:

"On-site/pipeline" supply—For large volume or "tonnage" users of industrial gases, a plant is built adjacent to, on, or near the customer's facility—hence the term "on-site." Alternatively, the gases are delivered through a pipeline from nearby locations. Supply is generally made under long-term contracts, typically five to twenty years in duration. In numerous areas—the Houston (Texas) Ship Channel including the Port Arthur, Texas, area; "Silicon Valley," California; Los Angeles, California; Phoenix, Arizona; Decatur, Alabama; Central Louisiana; Rotterdam, the Netherlands; Korea; Singapore; Taiwan; Malaysia; and Brazil—Air Products' hydrogen, oxygen, carbon monoxide, or nitrogen gas pipelines serve multiple customers from one or more centrally located plants. Industrial gas companies in which the Company has less than controlling interests have pipelines in Thailand, Singapore, and South Africa.

Liquid bulk supply—Smaller volumes of industrial gas products are delivered to thousands of customers in liquid or gaseous form by tanker trucks or tube trailers. These liquid bulk customers use equipment designed and installed by Air Products to store the product near the point of use, normally in liquid state, and vaporize the product into gaseous state for their use as needed. Some customers are also supplied by small on-site generators using noncryogenic technology based on adsorption and membrane technology which, in certain circumstances, the Company sells to its customers. Liquid bulk customers' contract terms normally are from three to five years.

Packaged gases supply—Industrial and various specialty and medical gases also can be delivered in cylinders, dewars, and lecture bottle sizes. The Company operates packaged gas businesses in Europe, Asia, and Brazil, but in the United States, only sells packaged gases for electronics gases, helium used in magnetic resonance imaging, and oxygen used by patients in their home.

Oxygen, nitrogen, argon, and hydrogen sold to liquid bulk customers are usually recovered or generated at large "stand-alone" facilities located near industrial areas or high-tech centers, or at small noncryogenic generators, or are taken from on-site plants used primarily to supply tonnage users. On-site plants are frequently designed to have more capacity than is required by their principal customer to recover additional product that is liquefied for sale to a liquid bulk market. Air Products also designs and builds systems for recovering oxygen, hydrogen, nitrogen, carbon monoxide, and low dew point gases using adsorption technology.

Sales of atmospheric gases—oxygen, nitrogen, and argon—constituted approximately 24 percent of Air Products' consolidated sales in fiscal year 2004, 25 percent in fiscal year 2003, and 26 percent in fiscal year 2002. Sales of industrial gases—principally oxygen, nitrogen, and hydrogen—to the chemical process industry and the electronics industry, the largest consuming industries, were approximately 19 percent and 14 percent, respectively, of Air Products' consolidated sales in fiscal year 2004.

Other important consumers of Air Products' industrial and specialty gases are the basic steel industry, the oil industry (which uses inert nitrogen for oil well stimulation and field pressurization and hydrogen and oxygen for refining), the food industry (which uses liquid nitrogen for food freezing), and the institutional healthcare industry. Air Products believes that it is the largest liquefier of hydrogen, which it supplies to many customers, including the National Aeronautics and Space Administration for its space shuttle program.

The global healthcare business of Air Products is directed at two main markets: institutional and homecare. The institutional market uses medical gases in hospitals, clinics, and nursing homes, as well as helium for use in magnetic resonance imaging. The homecare business involves the delivery of respiratory therapy services, infusion services, and home medical equipment to patients in their homes in Europe, South America, and principally in the eastern United States.

The electronics business of Air Products is a materials and services solutions provider to the electronics industry supplying consumable products that surround its customers' process tools. These products include industrial gases, electronic specialty gases (such as silane, arsine, silicon tetrafluoride, nitrogen trifluoride, carbon tetrafluoride, hexafluoromethane, and tungsten hexafluoride), electronic specialty chemicals, high purity wet process chemicals, and photolithography products. In certain circumstances the Company sells equipment related to the use, handling, and storage of such electronic gases and chemicals.

Sales of industrial gases and sales of specialty products to the electronics industry and others are made principally through regional offices in the United States, Europe, South America, Africa, and Asia.

Electricity and hydrocarbons, including natural gas as a feedstock for producing certain gases, are important to Air Products' gas business. See "Raw Materials and Energy." The Company's large truck fleet, which delivers products to liquid bulk customers, requires a readily available supply of gasoline or diesel fuel. Also, environmental and health laws and regulations will continue to affect the Company's gas businesses. See "Environmental Controls."

Air Products operates and has 50 percent interests in a 49-megawatt fluidized-bed coal-fired power generation facility in Stockton, California and in a 24-megawatt gas-fired combined cycle power generation facility near Rotterdam, the Netherlands. A 112-megawatt gas-fueled power generation facility, in which the Company has a 48.8 percent interest, operates in Thailand and supplies electricity to a state-owned electricity generating authority and steam and electricity to an Air Products industrial gases affiliate. The Company also constructed, operates, and has a 50 percent interest in a flue gas treatment facility in Indiana. Additional information with respect to the Company's power generation and flue gas treatment businesses is included in Notes 8 and 19 to the Consolidated Financial Statements included under Item 8 herein.

CHEMICALS

The Company's chemicals businesses consist of performance materials and chemical intermediates, where the Company is able to differentiate itself by the performance of its products in the customer's application, the technical service that the Company provides, and the scale of production and the production technology employed by the Company.

Chemical sales are supported from various locations in North America, Europe, Asia, and Africa, and through sales representatives or distributors in most industrialized countries. Dry products are delivered in railcars, trucks, drums, bags, and cartons. Liquid products are delivered by barge, rail tank cars, tank trailers, drums and pails, and, at one location, by pipeline.

The chemicals business depends on adequate energy sources, including natural gas as a feedstock for the production of certain products (see "Raw Materials and Energy"), and will continue to be affected by various environmental and health laws and regulations (see "Environmental Controls").

Performance Materials

The principal businesses of performance materials are Performance Polymers, Performance Solutions, and Performance Products. Total sales from the performance materials business constituted approximately 15 percent of Air Products' consolidated sales in fiscal year 2004, 15 percent in fiscal year 2003, and 17 percent in fiscal year 2002. Air

Products' performance materials are differentiated from the competition based on their functionality when used in the customer's products and applications, and by the technical service the Company provides.

Performance Polymers— Air Products owns 65 percent of a worldwide joint venture with Wacker-Chemie GmbH that produces polymer emulsions and pressure-sensitive adhesives. The Company also owns 20 percent of a worldwide joint venture with Wacker-Chemie GmbH that produces redispersible powders made from polymer emulsions.

Air Products' polymers are water-based and water-soluble emulsion products derived primarily from vinyl acetate monomer. The Company's major emulsions products are AIRFLEX® vinyl acetate-ethylene copolymer emulsions and vinyl acetate homopolymer emulsions. The Company also produces emulsions that incorporate vinyl chloride and various acrylates in the polymer. These products are used in adhesives, nonwoven fabric binders, paper coatings, paints, inks, and carpet backing binder formulations.

Performance Solutions—These products are primarily acetylenic alcohols and amines that are used as performance additives in coatings, lubricants, electro-deposition processes, agricultural formulations, and corrosion inhibitors.

Performance Products—These products include polyurethane catalysts and surfactants that are used as performance control additives and processing aids in the production of both flexible and rigid polyurethane foam around the world. The principal end markets for polyurethane foams include furniture cushioning, insulation, carpet underlay, bedding, and automobile seating.

Performance Products also includes epoxy additives such as polyamides, aromatic amines, cycloaliphatic amines, reactive diluents, and specialty epoxy resins that are used as performance additives in epoxy formulations by epoxy manufacturers worldwide. The end markets for epoxies are coatings, flooring, adhesives, reinforced composites, and electrical laminates.

Chemical Intermediates

The chemical intermediates businesses use the Company's proprietary technology and scale of production to differentiate themselves from the competition. The principal intermediates sold by the Company include amines and polyurethane intermediates. The Company also produces nitric acid as a raw material for its products. Total third-party sales from the chemical intermediates businesses constituted 10 percent of Air Products' consolidated sales in each of fiscal years 2004, 2003, and 2002.

Amines—The Company produces a broad range of amines using ammonia, methanol, and other alcohol feedstocks purchased from various suppliers. Substantial quantities of these products are sold under long-term contracts to a small number of customers. These products are used by the Company's customers as raw materials in the manufacture of herbicides, pesticides, water treatment chemicals, animal nutrients, polyurethane coatings, rubber chemicals, and pharmaceuticals. Additional ammonia is purchased and converted to ammonium nitrate prills and solutions that are primarily sold to customers as fertilizers or for other chemical applications. In 2004 the Company shut down its methanol and ammonia production facilities and began purchasing all of its methanol and ammonia requirements. The Company has announced its plan to sell the European methylamines and derivatives business.

Polyurethane Intermediates—The Company produces dinitrotoluene ("DNT") and toluene diamine ("TDA") for use as intermediates by the Company's customers in the manufacture of a major precursor of flexible polyurethane foam. The principal end markets for flexible polyurethane foams include furniture cushioning, carpet underlay, bedding, and seating in automobiles. Most of the Company's production of DNT and TDA is sold under long-term contracts to a small number of customers.

EQUIPMENT

The Company designs and manufactures equipment for cryogenic air separation, gas processing, natural gas liquefaction, and hydrogen purification. Air Products also designs and builds systems for recovering hydrogen, nitrogen, carbon monoxide, carbon dioxide, and low dew point gases using membrane technology. This segment further designs and builds cryogenic transportation containers for liquid helium and hydrogen. Customers include companies involved in chemical and petrochemical manufacturing, oil and gas recovery and processing, power generation, and steel and primary metal production. Additionally, a broad range of plant design, engineering, procurement, and construction management services is provided for the above areas. Equipment is manufactured for use by the gases segment and for sale in industrial markets that include the Company's international industrial gas joint ventures.

The backlog of orders (including letters of intent) believed to be firm from other companies and equity affiliates for equipment was approximately $297 million on 30 September 2004, approximately 30 percent of which relates to cryogenic air separation, and 46 percent of which relates to liquefied natural gas, as compared with a total backlog of approximately $259 million on 30 September 2003. It is expected that approximately $220 million of the backlog on 30 September 2004 will be completed during fiscal year 2005.

GENERAL

Foreign Operations

Air Products, through subsidiaries and affiliates, conducts business in numerous countries outside the United States. The structure of the Air Products gas business in Europe is comparable to the Company's United States operation, except that in Europe the Company is also engaged in a broader packaged gas business. Air Products' international business is 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's industrial gas segment, through investments ranging from wholly owned subsidiaries to minority ownership interests, does business in approximately 35 countries outside the United States. Majority and wholly owned industrial gas subsidiaries operate in Argentina, Brazil, Canada, and Mexico, and throughout Europe and Asia in 16 and ten countries, respectively. There are 50 percent industrial gas joint ventures in Canada and Trinidad and Tobago, seven countries in Europe, four in Asia, and two in Africa, and less than controlling interests in Africa, Canada, and Mexico, four countries in Europe, and five in Asia. The Company has a 50 percent joint venture in the U.K. that is developing products relating to silicon wafer polishing, chemical mechanical planarization processes, and hard disk polishing. The Company also has a 50 percent interest in a power generation facility in the Netherlands and a 48.8 percent interest in one in Thailand.

The principal geographic markets for the Company's chemical products are in 12 countries, with operations in North America, Europe, Asia, Brazil, and Mexico. Majority and wholly owned subsidiaries operate in Germany, Italy, the Netherlands, the United Kingdom, Australia, Japan, Korea, China, Taiwan, and Mexico. The polymer emulsions and pressure-sensitive adhesives joint venture with Wacker-Chemie GmbH has headquarters in the United States and production facilities in the United States, Germany, Mexico, and Korea, along with a technical service center in Shanghai, China. Headquarters for the 20 percent investment in the redispersible powder venture with Wacker-Chemie GmbH are in Germany with manufacturing facilities in Germany and the United States. The Company also has controlling interests in Korea and Taiwan and less than controlling interests in Japan and Ireland that sell chemicals to the electronics industry.

Financial information about Air Products' foreign operations and investments is included in Notes 8, 17, and 21 to the Consolidated Financial Statements included under Item 8 herein. Information about foreign currency translation is included in Note 1 to the Consolidated Financial Statements included under Item 8 herein, under "Foreign Currency," and information on Company exposure to currency fluctuations is included in Note 6 to the Consolidated Financial Statements included under Item 8 herein. Export sales from operations in the United States to unconsolidated customers amounted to $496 million, $497 million, and $533 million in fiscal years 2004, 2003, and 2002, respectively. Total export sales in fiscal year 2004 included $301 million in export sales to affiliated customers. The sales to affiliated customers were primarily equipment sales and electronic specialty materials sales.

Technology Development

Air Products conducts research and development principally in its laboratories located in Trexlertown, Pennsylvania, as well as in Carlsbad, California; Dublin, Ohio; and Easton, Pennsylvania in the U.S.; Basingstoke, London, and Crewe in the U.K.; Burghausen, Germany; Utrecht, the Netherlands; San Juan del Rio, Mexico; and Barcelona, Spain. The Company also funds and works closely on research and development programs with a number of major universities and conducts research work funded by others, principally the United States Government.

The Company's market-oriented approach to technology development encompasses research and development and engineering, as well as commercial development.

The amount expended by the Company on research and development during fiscal year 2004 was $127 million, $121 million in fiscal year 2003, and $120 million in fiscal year 2002. The amount expended by the Company on customer-

sponsored research activities during fiscal year 2004 was $14 million, $15 million in fiscal year 2003, and $18 million in fiscal year 2002.

In the gases and equipment segments, technology development is directed primarily to developing new and improved processes and equipment for the production and delivery of industrial gases, electronic specialty gases, electronic specialty chemicals, and hydrocarbons; developing new products; and developing new and improved applications for such products. It is through such applications and improvements that the Company has become a major supplier to the electronics and chemical process industries, including gases from air separation, specialty gases, and hydrogen. Additionally, technology development for the equipment business is directed primarily to reducing the capital and operating costs of its facilities and to commercializing new technologies in gas production, liquefaction, and separation.

In the chemicals segment, technology development is primarily concerned with new products and applications to strengthen and extend the Company's present positions in polymer and performance materials. In addition, a major continuing effort supports the development of new and improved process and manufacturing technology for chemical intermediates and polymers.

A corporate research group supports the research efforts of the Company's various businesses. This group includes the Company's Corporate Science and Technology Center, which conducts research in areas important to the long-term growth of the Company with focus on performance materials.

As of 1 November 2004, Air Products owned 1,061 United States patents and 2,102 foreign patents. The Company is also licensed under certain patents owned by others. While the patents and licenses are considered important, Air Products does not consider its business as a whole to be materially dependent upon any particular patent or patent license, or group of patents or licenses.

Raw Materials and Energy

The Company manufactures hydrogen, carbon monoxide, synthesis gas, and carbon dioxide principally from natural gas. Such products accounted for approximately 13 percent of the Company's consolidated sales in fiscal year 2004. The Company's principal raw material purchases are chemical intermediates produced by others from basic petrochemical feedstocks such as olefins and aromatic hydrocarbons. These feedstocks are generally derived from various crude oil fractions or from liquids extracted from natural gas. The Company purchases its chemical intermediates from many sources and generally is not dependent on one supplier. However, with respect to vinyl acetate monomer that supports the performance polymer business, the Company is heavily dependent on a single supplier under a long-term contract that produces vinyl acetate monomer from several facilities. The Company characterizes the availability of these chemical intermediates as generally being readily available. The Company uses such raw materials in the production of emulsions, amines, polyurethane intermediates, specialty additives, polyurethane additives, and epoxy additives. Such products accounted for approximately 26 percent of the Company's consolidated sales in fiscal year 2004. Natural gas is an energy source at a number of the Company's facilities. The Company also purchases ammonia under long-term contracts as a feedstock for several of its chemicals facilities. During 2005, the Company will begin purchasing methanol under a long-term supply arrangement. Methanol, produced from natural gas, is a feedstock in methylamine production.

A long-term supplier of sulfuric acid, used in the production of dinitrotoluene (DNT), emerged from Chapter 11 bankruptcy protection in 2003. To facilitate the supplier's ability to emerge from bankruptcy and to continue supplying product to the Company, the Company agreed to participate in the supplier's financing and has continued to provide additional financing. Total loans to the supplier at 30 September 2004 totaled $55.3 million. If the supplier does not continue to operate, the sales and profitability of the chemicals segment could be materially impacted on an annual basis because of the Company's inability to supply all of its customers' base requirements. The Company does not expect a material loss related to this supplier.

The Company's industrial gas facilities use substantial amounts of electrical power. Electricity is the largest cost input for the production of atmospheric gases. Any shortage of electrical power or interruption of its supply or increase in its price that cannot be passed through to customers for competitive reasons will adversely affect the liquid bulk gas business of the Company.

In addition, the Company purchases finished and semi-finished materials and chemical intermediates from many suppliers. During fiscal year 2004, no significant difficulties were encountered in obtaining adequate supplies of energy or raw materials.

Environmental Controls

The Company is subject to various environmental laws and regulations in the United States and foreign countries where it has operations. Compliance with these laws and regulations results in higher capital expenditures and costs. Additionally, 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 policies on environmental expenditures are discussed in Note 1 to the Consolidated Financial Statements included under Item 8 herein.

The amounts charged to earnings on an after-tax basis related to environmental matters totaled $32 million in 2004, $30 million in 2003, and $24 million in 2002. These amounts represent an estimate of expenses for compliance with environmental laws, as well as remedial activities, and costs incurred to meet internal Company standards. Such costs are estimated to be $32 million in 2005 and $33 million in 2006.

Although precise amounts are difficult to define, the Company estimates that in fiscal year 2004 it spent approximately $18 million on capital projects to control pollution versus $16 million in 2003. Capital expenditures to control pollution in future years are estimated at approximately $15 million in 2005 and $17 million in 2006.

To the extent long-term contracts have been entered into for supply of product, such as for the industrial gas on-site business and for certain chemical products, the cost of any environmental compliance generally is contractually passed through to the customer.

It is the Company's policy to accrue environmental investigatory and noncapital 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 $9 million to a reasonably possible upper exposure of $19 million. The accrual on the balance sheet for 30 September 2004 was $14 million and for 30 September 2003 was $15 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.

Competition

The Company's businesses face strong competition from others, some of which are larger and have greater resources than Air Products.

Air Products' industrial gas business competes in the United States with three major sellers and with several regional sellers. Competition in industrial gas markets is based primarily on price, reliability of supply, and furnishing or developing applications for use of such gases by customers, and in some cases the provisions of other services or products such as power and steam generation. Similar competitive situations exist in European and Asian industrial gas markets in which the Company competes against one or more larger entrenched competitors in most countries.

The division of the Company's gas business that serves the electronics industry offers electronic specialty gases, chemicals, services, and equipment. These products face competition from competitors who vary from product to product, ranging from niche suppliers having only a single product, to larger and more vertically integrated chemical companies with greater financial resources than the Company. Competition in these products is principally on the basis of price, quality, product performance, and reliability of product supply.

Competition in the institutional market of the global healthcare business is principally from other large, established industrial gas companies using business models (long-term product supply agreements) that are similar to those the companies utilize for other industrial gas supply relationships. Competition in this market is principally based on price, quality, service, and reliability of supply. Homecare is served by national and local providers, and in the U.S. there are over 2,000 regional and local providers. The homecare market is highly competitive. In the United States reimbursement levels are established by fee schedules regulated by Medicare and Medicaid, or by the levels negotiated with insurance companies. Accordingly, in the United States, homecare companies compete primarily on the basis of service. Maintaining competitiveness requires efficient logistics, reimbursement, and accounts receivable systems. The Company intends to attempt to acquire additional homecare companies, provided that such companies can be acquired on terms deemed reasonable by management.

The number of the Company’s principal competitors in the chemicals business varies from product to product, and it is not practical to identify such competitors because of the broad range of the Company’s chemical products and the markets served, although the Company believes it has a leading or strong market position in most of its chemical products. For amines the competition is principally from other large chemical companies that also have the ability to provide competitive pricing, reliability of supply, technical service assistance, and quality products and services. The possibility of back integration by large customers is the major competitive factor for the sale of polyurethane additives. In its other chemical products, the Company competes with a large number of chemical companies, some of which are larger, possess greater financial resources, and are more vertically integrated than the Company. Competition in these products is principally on the basis of price, quality, product performance, reliability of product supply, and technical service assistance.

The Company’s equipment business competes in all aspects with a great number of firms, some of which have greater financial resources than Air Products. Competition is based primarily on technological performance, service, technical know-how, price, and performance guarantees.

Insurance

The Company’s policy is to obtain public liability and property insurance coverage that is currently available at what management determines to be a fair and reasonable price. The Company maintains public liability and property insurance coverage at amounts that management believes are sufficient to meet the Company’s anticipated needs in light of historical experience to cover future litigation and claims. There is no assurance, however, that the Company will not incur losses beyond the limits of, or outside the coverage of, its insurance.

Employees

On 30 September 2004, the Company (including majority-owned subsidiaries) had approximately 19,900 employees of whom 19,300 were full-time employees, and of whom approximately 9,200 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 three to four years. The Company considers relations with its employees to be satisfactory and does not believe that any expiring 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 450 Fifth Street, NW, 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.

Executive Officers of the Company

The Company’s executive officers and their respective positions and ages on 1 December 2004 follow. Except where indicated, each of the executive officers listed below has been employed by the Company in the position indicated during the past five fiscal years. Information with respect to offices held is stated in fiscal years.

Name	Age	Office
W. Douglas Brown (C)	58	Vice President, General Counsel, and Secretary (became Vice President, General Counsel, and Secretary in 1999)

Name	Age	Office
Mark L. Bye (C)	48	Group Vice President–Gases and Equipment (became Group Vice President–Gases and Equipment in 2003; President–Air Products Asia in 2001; and Vice President–Performance Chemicals Division prior thereto)
Paul E. Huck (C)	54	Vice President and Chief Financial Officer (became Vice President and Chief Financial Officer in 2004; Vice President and Corporate Controller in 2002; Vice President–Project Management Office in 2000; Vice President and Corporate Controller prior thereto)
John P. Jones III (A)(B)(C)	54	Chairman, President, and Chief Executive Officer (became Chairman and Chief Executive Officer in 2000; President and Chief Operating Officer prior thereto)
Arthur T. Katsaros (C)	57	Group Vice President–Development and Technology (became Group Vice President–Development and Technology in 2003; Group Vice President–Engineered Systems and Development in 2001; Group Vice President–Engineered Systems and Operations Group prior thereto)
John F. McGlade (C)	50	Group Vice President–Chemicals (became Group Vice President–Chemicals in 2003; Vice President–Chemicals Group Business Divisions in 2003; Vice President and General Manager–Performance Chemicals Division in 2001; and Vice President and General Manager, Chemical and Process Industries and Energy Systems prior thereto)
Lynn C. Minella (C)	46	Vice President — Human Resources (became Vice President, Human Resources in 2004; Vice President, Human Resources, Software Group, International Business Machines Corporation in 2003; Vice President, Human Resources, Technology Group, International Business Machines Corporation in 2001; Vice President, Human Resources, Global Services Americas, International Business Machines Corporation prior thereto)

(A) Member, Board of Directors

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

(C) Member, Corporate Executive Committee

ITEM 2. Properties.

The principal executive offices of Air Products are located at its headquarters in Trexlertown, near Allentown, Pennsylvania. Additional administrative offices are located in owned facilities in Hersham, near London, England and Hattingen, Germany. Administrative offices are also located in leased facilities in the Allentown and Philadelphia areas in Pennsylvania; Dublin, Ohio; Mississauga, Ontario, Canada; Tokyo, Japan; Hong Kong, the People's Republic of China; Singapore; Brussels, Belgium; Paris, France; Barcelona, Spain; and Sao Paulo, Brazil. The management considers the Company's manufacturing facilities, described in more detail below, to be adequate to support the business efficiently. The following information with respect to properties is as of 30 September 2004.

Gases

In the United States, the gases segment has approximately 200 plant facilities in 34 states, the majority of which recover nitrogen, oxygen, and argon. The Company has three facilities that produce specialty gases, three facilities that clean electronic parts, three facilities that produce electronic chemicals, and 27 facilities that produce and/or recover hydrogen throughout the United States. Helium is recovered at two plants in Kansas and Texas. There are 16 sales offices

located in 9 states. The property on which these plants are located is owned by Air Products at approximately one-fourth of the locations, and leased by Air Products at the remaining locations. However, in virtually all cases, the plant itself is owned and operated by Air Products. Air Products owns approximately 25 percent of its industrial gas sales offices and cylinder distribution centers, including related real estate, and leases the other 75 percent.

Air Products' European plant facilities total 61 and include seven facilities that recover hydrogen, five facilities that manufacture dissolved acetylene, one facility that recovers carbon monoxide, and two facilities that produce electronic chemicals. The majority of European plants recover nitrogen, oxygen, and argon. In addition, there are five specialty gas centers. There are 105 sales offices and/or cylinder distribution centers in Europe, and several additional facilities located in Brazil, Canada, Puerto Rico, and the Middle East.

In Asia the gases segment has approximately 97 plant facilities in eight countries, including three equipment manufacturing facilities, an electronic chemicals facility, and eight facilities that produce and/or recover hydrogen. The property on which these plants are located is owned by Air Products at approximately one-fifth of the locations, and leased by Air Products at the remaining locations. There are approximately 40 sales offices and distribution centers located throughout the region, half of which are owned sites and the remainder leased. Representative offices are located in Taiwan and in Hong Kong, Beijing, and Shanghai in the People's Republic of China.

Global healthcare has 173 facilities in the United States, Canada, Argentina, Brazil, Mexico, South Africa, and five countries in Europe. The majority of the facilities for global healthcare are leased.

Chemicals

The chemicals segment manufactures amines, nitric acid, and ammonia products at its Pace, Florida facility; alkylamines at its St. Gabriel, Louisiana facility and its Camacari, Bahia, Brazil facility; polyvinyl acetate emulsions at its South Brunswick, New Jersey facility; dinitrotoluene at its Geismar, Louisiana facility; polyvinyl acetate emulsions at its Cologne, Germany facility; nitric acid, dinitrotoluene, and toluene diamine at its Pasadena, Texas facility; polyvinyl acetate emulsions and acetylenic chemicals at its Calvert City, Kentucky facility; specialty amines at its Wichita, Kansas facility; and epoxy additives at its facilities in Manchester, England, and Los Angeles, California. The chemicals segment manufactures polyurethane additives and polyurethane specialty products (AIRTHANE®/VERSATHANE®) at its Paulsboro, New Jersey facility that is leased in part and owned in part. The chemicals segment also manufactures polyvinyl acetate emulsions at four smaller locations.

The chemicals segment has 12 plant facilities, two sales offices, and one laboratory in the United States, and operates three plants, three sales/representative offices, and two laboratories in Europe, two laboratories in Brazil and Japan, one plant in Brazil, one plant in each of Singapore and Korea, and sales offices in Australia, Brazil, Mexico, the People's Republic of China, Japan, Korea, and Singapore, and representative offices in Beijing, Shanghai, and Hong Kong in the People's Republic of China. Substantially all of the chemicals segment's plants and real estate are owned. The Company leases approximately 75 percent of the offices and 25 percent are owned.

Equipment

The principal facilities utilized by the equipment segment include six plants and two sales offices in the United States, two plants and one office in Europe, four offices in Japan and the People's Republic of China, and three plants in Korea, Taiwan, and the People's Republic of China. Air Products owns approximately 50 percent of the facilities and real estate in this segment and leases the remaining 50 percent.

ITEM 3. Legal Proceedings.

In the normal course of business Air Products and its subsidiaries are involved in legal proceedings including proceedings involving governmental authorities 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 40 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. 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, nor is there any material additional exposure expected in

any one year in excess of the amounts the Company currently has accrued. Additional information on the Company's environmental exposure is included under "Environmental Controls."

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 Purchase of Equity Securities.

The Company's Common Stock, ticker symbol "APD," is listed on the New York and Pacific Stock Exchanges. 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 Air Products' common stock are paid quarterly. The 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

2004	High	Low	Close	Dividend
First	$53.07	$44.12	$52.83	$ .23
Second	55.40	46.71	50.12	.23
Third	53.20	47.49	52.45	.29
Fourth	55.76	48.42	54.38	.29
				$1.04

2003	High	Low	Close	Dividend
First	$46.50	$40.34	$42.75	$.21
Second	44.20	36.97	41.43	.21
Third	44.25	40.72	41.60	.23
Fourth	48.78	40.50	45.10	.23
				$.88

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 as between series. 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 and Trust Company, 59 Maiden Lane, Plaza Level, New York, New York 10038, telephone (800) 937-5449 (U.S. and Canada) or (718) 921-8200 (all other locations), Internet website www.amstock.com, and e-mail address info@amstock.com.

As of 1 December 2004, there were 10,547 record holders of the Company's Common Stock.

ITEM 6. Selected Financial Data.

The tabular information appearing under "Five-Year Summary of Selected Financial Data" on page 68 of the 2004 Financial Review Section of the Annual Report to Shareholders is incorporated herein by reference.

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ITEM 7. Management's Discussion and Analysis of Financial Condition and Results of Operation.

The textual information appearing under "Management's Discussion and Analysis" on pages 15 through 36 of the 2004 Financial Review Section of the Annual Report to Shareholders is incorporated herein by reference.

ITEM 7A. Quantitative and Qualitative Disclosures about Market Risk.

The textual information appearing under "Market Risks and Sensitivity Analysis" on pages 31 and 32 of the 2004 Financial Review Section of the Annual Report to Shareholders is incorporated herein by reference.

ITEM 8. Financial Statements and Supplementary Data.

The consolidated financial statements and the related notes thereto, together with the report thereon of KPMG LLP dated 27 October 2004, appearing on pages 37 through 68 of the 2004 Financial Review Section of the Annual Report to Shareholders, are incorporated herein by reference.

ITEM 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure.

Not Applicable.

ITEM 9A. Controls and Procedures.

Under the supervision of the Chief Executive Officer and Chief Financial Officer, the Company's management conducted an evaluation of the effectiveness of the design and operation of the Company's disclosure controls and procedures as of 30 September 2004. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that the design and operation of its disclosure controls and procedures have been effective. There have been no significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of such evaluation.

ITEM 9B. Other Information.

PART III

ITEM 10. Directors and Executive Officers of the Registrant

The biographical information relating to the Company's directors, appearing on pages 7 through 9 of the Proxy Statement relating to the Company's 2004 Annual Meeting of Shareholders, is incorporated herein by reference. Biographical information relating to the Company's executive officers is set forth in Item 1 of Part I of this Report.

Information on Section 16(a) Beneficial Ownership Reporting Compliance, appearing on page 27 of the Proxy Statement relating to the Company's 2004 Annual Meeting of Shareholders, is incorporated herein by reference.

The Company's existing Code of Conduct, which has applied to all employees, was updated in 2003 to comply with the requirements of Sarbanes-Oxley and the New York Stock Exchange, including by clarifying its application to its principal executive officer, principal financial officer, principal accounting officer, and directors. The text of the Code of Conduct was filed as Exhibit 14 to the 2003 Annual Report on Form 10-K. The Code of Conduct can also be found at the Company's Internet website at www.airproducts.com/responsibility/governance/codeofconduct.htm.

ITEM 11. Executive Compensation.

The information under "Compensation of Executive Officers" which includes "Report of the Management Development and Compensation Committee," "Executive Compensation Tables," "Severance and Employment Arrangements," "Change in Control Arrangements," and "Information About Stock Performance and Ownership," appearing on pages 16 through 25 of the Proxy Statement relating to the Company's 2005 Annual Meeting of Shareholders, is incorporated herein by reference.

ITEM 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

Securities Authorized for Issuance Under Equity Compensation Plans.

Equity Compensation Plan Information

The following table provides information as of 30 September 2004, about Company Stock that may be issued upon the exercise of options, warrants, and rights granted to employees or members of the Board of Directors under the Company's existing equity compensation plans, including plans approved by shareholders and plans that have not been approved by shareholders in reliance on the New York Stock Exchange's traditional treasury stock or other applicable exception to the Exchange's listing requirements.

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants, and rights	Weighted-average exercise price of outstanding options, warrants, and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by security holders	21,298,900(1)	$37.76	7,423,099(2)
Equity compensation plans not approved by security holders	5,411,655(3)	$35.58	1,387,167(4)
Total	26,710,555	$37.31	8,810,266

(1) Represents Long-Term Incentive Plan outstanding options and deferred stock units ("DSUs") that have been granted. DSUs entitle the recipient to one share of Company common stock upon earn out, which is conditioned on continued employment during the deferral period and may also be conditioned on meeting certain performance targets. The deferral period generally ends upon death, disability, or retirement.

(2) Represents authorized shares that were available for future grants as of 30 September 2004. These shares may be used for options, DSUs, restricted stock, and other stock-based awards to officers, directors, and key employees.

(3) Represents outstanding options under Global Employee Stock Awards (2,381,283), the Stock Incentive Plan (1,989,930), the Stock Option Plan for Directors (96,000), and the U.K. Savings-Related Share Option Schemes (774,108). This number also includes DSUs under the Deferred Compensation Plan for Directors (91,720), the Annual Incentive Plan (36,966), and the Supplementary Savings Plan (41,648). DSUs issued under these plans are purchased for the fair market value of the underlying shares of stock with eligible deferred compensation, except for that portion of directors fees that is paid in DSUs as described above.

(4) The number also includes a reserve of (887,167) shares available for stock option awards under the U.K. Savings-Related Share Option Schemes, a (250,000) reserve for the Annual Incentive Plan and Supplementary Savings Plan and (250,000) reserve for the Deferred Compensation Plan for Directors.

Global Employee Stock Option Awards and Stock Incentive Program – All stock options under these plans were granted at fair market value on the date of grant, first become exercisable three years after grant, and terminate ten years after the date of grant or upon the earlier termination of employment for reasons other than retirement, disability, death, or involuntary termination due to Company action necessitated by business conditions. No further awards will be made under these plans.

Stock Option Plan for Directors – All stock options under this plan were granted at fair market value on the date of grant. The options become exercisable in six months after grant and remain exercisable for nine and one-half years unless the director resigns from our Board after serving for less than six years (other than because of disability or death). No further awards will be made under this plan.

The Air Products PLC U.K. Savings-Related Share Option Scheme and the Air Products Group Limited U.K. Savings-Related Share Option Scheme (together, the "U.K. Plan") are employee benefit plans for employees of Air Products PLC (and certain of its U.K. subsidiaries) and Air Products Group Limited (and certain of its U.K. subsidiaries), respectively (together, the "U.K. Companies"). Employees participate in the U.K. Plan by electing to do so during a brief invitation period. An employee who elects to participate elects a five- or seven-year option period and has amounts of salary automatically withheld and contributed to a savings account at a bank not affiliated with the Company. At the end of the five-year savings period, a tax-free bonus is added to the employee's account. An employee who elects a seven-year option and retains his savings account for seven years receives a further bonus at the end of the seventh year. At the end of the option period, the participant may use his savings to purchase shares of Company Stock at the fixed option price or receive in cash the amount of his savings and bonus(es). His election must be made within six months of the close of the option period. The option price is an amount determined by the directors of the U.K. Company on the date the option is granted, which may not be less than 90 percent of Market Value (as defined in the U.K. Plan) on the date of grant.

Deferred Compensation Plan for Directors - Our compensation plan for non-employee directors mandates that one-half of each director's quarterly retainer is paid in DSUs. Directors have the opportunity to purchase more DSUs with up to all of the rest of their retainers and meeting fees. Retainer and meeting fee dollars (plus dividend equivalents earned on the director's existing DSU account during the quarter) are converted to DSUs based on the market value of a share of Company Stock on the second business day preceding the date the dollars would have been paid to the director. (Retainers and meeting fees are paid quarterly in arrears.) New directors and directors continuing in office after our annual meetings were awarded 1,000 DSUs. Each DSU also accrues dividend equivalents which are equal to the dividends that would have been paid on a share of stock during the period the DSUs are outstanding. Accumulated dividend equivalents are converted to DSUs on a quarterly basis. DSUs provide our directors with the financial equivalent of owning Company Stock participating in quarterly dividend reinvestment, which they cannot sell until after they leave our Board, except that DSUs have no voting rights. Directors may transfer DSUs by gift to family members.

The Annual Incentive Plan is the annual cash bonus plan for executives and key salaried employees of the Company and its subsidiaries. Terms applicable to the Plan were approved by shareholders in order to permit the continued exclusion of compensation payable under it from the deduction limitations imposed by Section 162(m) of the Internal Revenue Code. The Plan is administered by the Management Development and Compensation Committee of the Board of Directors (the "Compensation Committee"). All or a portion of bonuses granted to a participant may be deferred at the election of the participant or at the discretion of the Compensation Committee ("Deferred Awards").

The dollar amount of Deferred Awards granted to a participant is initially credited to an unfunded account that earns interest credits. Participants with Deferred Awards are periodically permitted while employed by the Company to irrevocably convert all or a portion of their accounts to an account deemed to be invested in Company Stock. Upon conversion, the Company Stock account is credited with deferred stock units ("DSUs") based on the fair market value of a share of Company Stock on the date of crediting. Dividend equivalents corresponding to the number of DSUs are credited quarterly to the interest-bearing account. DSUs are paid after, but no later than ten years after, termination of employment in shares of Company Stock, unless the Compensation Committee determines otherwise. Upon a change in control of the Company, DSUs become payable immediately in cash.

The Company's *Supplementary Savings Plan* is an unfunded employee retirement benefit plan available to certain of the Company's U.S.-based management and other highly compensated employees (and those of its subsidiaries) whose participation in the Company's Retirement Savings and Stock Ownership Plan (the "RSSOP") is limited by federal tax laws. Participants may defer a portion of base salary which cannot be contributed to the RSSOP because of tax limitations ("Elective Deferrals") and earn matching contributions from the Company they would have received if their Elective Deferrals had been contributed to the RSSOP ("Matching Credits"). The dollar amount of Elective Deferrals and Matching Credits is initially credited to an unfunded account, which earns interest credits. Participants are periodically permitted while employed by the Company to irrevocably convert all or a portion of their interest bearing account to DSUs in a

Company Stock account. Conversion and crediting of earnings to, and payments from, the Company Stock account is the same as described above as to Deferred Awards granted under the Annual Incentive Plan.

The information set forth in the sections headed “Persons Owning More than 5% of Air Products Stock as of September 30, 2004,” and “Air Products Stock Beneficially Owned by Officers and Directors as of November 1, 2004,” appearing on pages 26 through 27 of the Proxy Statement relating to the Company’s 2005 Annual Meeting of Shareholders, is incorporated herein by reference.

ITEM 13. Certain Relationships and Related Transactions.

Not applicable.

ITEM 14. Principal Accountant Fees and Services.

The information presented on pages 13 and 14 of the Proxy Statement relating to the Company’s 2005 Annual Meeting of Shareholders is incorporated herein by reference.

PART IV

ITEM 15. Exhibits and Financial Statement Schedules.

(a) The following documents are filed as a part of this Report to the extent below noted:

1. The 2004 Financial Review Section of the Company’s 2004 Annual Report to Shareholders. Information contained therein is not deemed filed except as it is incorporated by reference into this Report. The following financial information is incorporated herein by reference:

(Page references to 2004 Financial Review Section of the Annual Report)

Management’s Discussion and Analysis	15
Report of Independent Registered Public Accounting Firm	37
Consolidated Income Statements for the three years ended 30 September 2004	38
Consolidated Balance Sheets at 30 September 2004 and 2003	39
Consolidated Statements of Cash Flows for the three years ended 30 September 2004	40
Consolidated Statements of Shareholders’ Equity for the three years ended 30 September 2004	41
Notes to the Consolidated Financial Statements	42
Business Segment and Geographic Information	65
Five-Year Summary of Selected Financial Data	68

2. The following additional information should be read in conjunction with the consolidated financial statements in the Company’s 2004 Financial Review Section of the Annual Report to Shareholders:

(Page references to this Report)

Report of Independent Registered Public Accounting Firm on Schedule	17

Consolidated Schedule for the years ended 30 September 2004, 2003, and 2002 as follows:

Schedule Number		
II	Valuation and Qualifying Accounts	18

All other schedules are omitted because the required matter or conditions are not present or because the information required by the Schedules is submitted as part of the consolidated financial statements and notes thereto.

3. Exhibits.

Exhibits filed as a part of this Annual Report on Form 10-K are listed in the Index to Exhibits located on page 19 of this Report.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this Report to be signed on its behalf by the undersigned, thereunto duly authorized.

AIR PRODUCTS AND CHEMICALS, INC.
(Registrant)

By: /s/ Paul E. Huck

Paul E. Huck
Vice President and Chief Financial Officer
(Principal Financial Officer)
(Principal Accounting Officer)

Date: 13 December 2004

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature and Title	Date
/s/ John P. Jones III (John P. Jones III) Director, Chairman, President, and Chief Executive Officer (Principal Executive Officer)	13 December 2004
* (Mario L. Baeza) Director	13 December 2004
* (Michael J. Donahue) Director	13 December 2004
* (Ursula F. Fairbairn) Director	13 December 2004
* W. Douglas Ford Director	13 December 2004

Signature and Title	Date
* (Edward E. Hagenlocker) Director	13 December 2004
* (James F. Hardymon) Director	13 December 2004
* (Terrence Murray) Director	13 December 2004
* (Lawrence S. Smith) Director	13 December 2004
* (Lawrason D. Thomas) Director	13 December 2004

* W. Douglas Brown, Vice President, General Counsel, and Secretary, by signing his name hereto, does sign this document on behalf of the above noted individuals, pursuant to a power of attorney duly executed by such individuals, which is filed with the Securities and Exchange Commission herewith.

/s/ W. Douglas Brown

W. Douglas Brown
Attorney-in-Fact

Date: 13 December 2004

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors of Air Products and Chemicals, Inc.:

Under date of 27 October 2004, we reported on the consolidated balance sheets of Air Products and Chemicals, Inc. and subsidiaries as of 30 September 2004 and 2003, and the related consolidated statements of income, cash flows, and shareholders' equity for each of the years in the three year period then ended as contained in the Annual Report to Shareholders. These consolidated financial statements and our report thereon are incorporated by reference in this Form 10-K. In connection with our audits of the aforementioned consolidated financial statements, we also audited the related consolidated financial statement schedule referred to in Item 15(a)(2) in this Form 10-K. This financial statement schedule is the responsibility of the Company's management. Our responsibility is to express an opinion on this financial statement schedule based on our audit.

In our opinion, such financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

KPMG LLP
Philadelphia, Pennsylvania
27 October 2004

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SCHEDULE II
CONSOLIDATED

AIR PRODUCTS AND CHEMICALS, INC. AND SUBSIDIARIES

SCHEDULE II–VALUATION AND QUALIFYING ACCOUNTS

For the Years Ended 30 September 2004, 2003, and 2002

		Additions		Other Changes Increase(Decrease)		
Classification	**Balance at Beginning of period**	**Charged to Expense**	**Charged to other Accounts[1]**	**Cumulative Translation Adjustment**	**Other[2]**	**Balance at End of Period[3]**
			(in millions of dollars)			
Year Ended 30 September 2004						
Allowance for doubtful accounts	$ 22	$18	$ 2	$ 1	$(13)	$30
Year Ended 30 September 2003						
Allowance for doubtful accounts	$ 12	$12	$ 4	$ 1	$ (7)	$22
Year Ended 30 September 2002						
Allowance for doubtful accounts	$ 10	$14	$ 1	$ —	$(13)	$12

Notes:

[1] Includes primarily collections on accounts previously written off.

[2] Primarily includes write-offs of uncollectible accounts.

[3] Increase in account balance at 30 September 2003 primarily attributed to the acquisition of American Homecare Supply, LLC.

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INDEX TO EXHIBITS

Exhibit No.	Description
(3)	Articles of Incorporation and By-Laws.
3.1	By-Laws of the Company. (Filed as Exhibit 3.1 to the Company's Form 8-K Report dated 18 September 1997.)*
3.2	Restated Certificate of Incorporation of the Company. (Filed as Exhibit 3.2 to the Company's Form 10-K Report for the fiscal year ended 30 September 1987.)*
3.3	Amendment to the Restated Certificate of Incorporation of the Company dated 25 January 1996. (Filed as Exhibit 3.3 to the Company's Form 10-K Report for the fiscal year ended 30 September 1996.)*
(4)	Instruments defining the rights of security holders, including indentures. Upon request of the Securities and Exchange Commission, the Company hereby undertakes to furnish copies of the instruments with respect to its long-term debt.
4.1	Rights Agreement, dated as of 19 March 1998, between the Company and First Chicago Trust Company of New York. (Filed as Exhibit 1 to the Company's Form 8-A Registration Statement dated 19 March 1998, as amended by Form 8-A/A dated 16 July 1998.)*
4.2	Amended and Restated Credit Agreement dated as of 16 September 1999 among the Company, Additional Borrowers parties thereto, Lenders parties thereto, and The Chase Manhattan Bank (as amended). (Filed as Exhibit 4.2 to the Company's Form 10-K Report for the fiscal year ended 30 September 1999.)*
(10)	Material Contracts.
10.1	1990 Deferred Stock Plan of the Company, as amended and restated effective 1 October 1989. (Filed as Exhibit 10.1 to the Company's Form 10-K Report for the fiscal year ended 30 September 1989.)*
10.2	The Rules of the United Kingdom Savings-Related Share Option Scheme of the Company as adopted on 24 October 1997, as amended on 1 October 1999 and 5 November 1999. (Filed as Exhibit 10.2 to the Company's Form 10-K Report for the fiscal year ended 30 September 2002.)*
10.3	Amended and Restated Supplementary Savings Plan of the Company effective 1 April 1998, reflecting amendments through 30 September 2002. (Filed as Exhibit 10.3 to the Company's 10-Q Report for the quarter ended 31 March 2003.)*
10.4	Amended and Restated Supplementary Pension Plan of the Company effective 1 May 2003. (Filed as Exhibit 10.2 to the Company's 10-Q Report for the quarter ended 31 March 2003.)*
10.5	Stock Option Program for Directors of the Company, formerly known as the Stock Option Plan for Directors. Effective 23 January 2003, this Plan was combined with the Long-Term Incentive Plan and offered as a program thereunder.
10.6	Letter dated 7 July 1997 concerning pension for an executive officer. (Filed as Exhibit 10.7(c) to the Company's Form 10-K Report for the fiscal year ended 30 September 1998.)*
10.7	Air Products and Chemicals, Inc. Severance Plan effective 15 March 1990. (Filed as Exhibit 10.8(a) to the Company's Form 10-K Report for the fiscal year ended 30 September 1992.)*
10.8	Air Products and Chemicals, Inc. Change of Control Severance Plan effective 15 March 1990. (Filed as Exhibit 10.8(b) to the Company's Form 10-K Report for the fiscal year ended 30 September 1992.)*

Exhibit No.	Description
10.9	Amended and Restated Trust Agreement by and between the Company and PNC Bank, N.A. relating to the Defined Benefit Pension Plans dated as of 1 August 1999. (Filed as Exhibit 10.13 to the Company's Form 10-K Report for the fiscal year ended 30 September 1999.)*
10.9(a)	Amendment No. 1 to the Amended and Restated Trust Agreement by and between the Company and PNC Bank, N.A. relating to the Defined Benefit Pension Plan, adopted 1 January 2000. (Filed as Exhibit 10.13(a) to the Company's Form 10-K Report for the fiscal year ended 30 September 2000.)*
10.10	Amended and Restated Trust Agreement by and between the Company and PNC Bank, N.A. relating to the Supplementary Savings Plan dated as of 1 August 1999. (Filed as Exhibit 10.14 to the Company's Form 10-K Report for the fiscal year ended 30 September 1999.)*
10.10(a)	Amendment No. 1 to the Amended and Restated Trust Agreement by and between the Company and PNC Bank, N.A. relating to the Supplementary Savings Plan, adopted 1 January 2000. (Filed as Exhibit 10.14(a) to the Company's Form 10-K Report for the fiscal year ended 30 September 2000.)*
10.11	Form of Severance Agreements that the Company has with each of its U.S. Executive Officers. (Filed as Exhibit 10.16 to the Company's Form 10-K Report for the fiscal year ended 30 September 1999.)*
10.12	Amended and Restated Long Term Incentive Plan of the Company, effective 23 January 2003. (Filed as Exhibit 10.2 to the Company's Form 10-Q Report for the quarter ended 31 March 2003.)*
10.13	Form of Award Agreement under the Long Term Incentive Plan of the Company, used for the FY2004 awards. (Filed as Exhibit 10.2 to the Company's Form 10-Q Report filed for the quarter ended 31 December 2003.)*
10.14	Amended and Restated Annual Incentive Plan of the Company, effective 1 October 2001. (Filed as Exhibit 10.2 to the Company's Form 10-Q Report for the quarter ended 31 March 2002.)*
10.15	Compensation Program for Directors of the Company, effective 1 October 2003. (Filed as Exhibit 10.3 to the Company's Form 10-Q Report filed for the quarter ended 31 December 2003.)*
10.16	Deferred Compensation Program for Directors of the Company, formerly known as the Deferred Compensation Plan for Directors of the Company. Effective 23 January 2003, the Plan was combined with the Long-Term Incentive Plan and offered as a program thereunder.
10.17	Stock Incentive Program of the Company effective 1 October 1996. (Filed as Exhibit 10.21 to the Company's Form 10-K Report for the fiscal year ended 30 September 2002.)*
10.18	Terms and Conditions of the Global Employee Stock Option Awards of the Company effective 1 October 1995, 1997, and 1999. (Filed as Exhibit 10.22 to the Company's Form 10-K Report for the fiscal year ended 30 September 2002.)*
10.19	Terms and Conditions of the Stock Incentive Awards of the Company effective 1 October 1999, 2000, 2001, and 2002.
10.20	Air Products and Chemicals, Inc. Corporate Executive Committee Retention/Separation Program, effective July 17, 2003. (Filed as Exhibit 10.22 to the Company's Form 10-K Report for the fiscal year ended 30 September 2003.)*
10.21	Air Products and Chemicals, Inc. Retirement Savings and Stock Ownership Plan as amended and restated effective 1 October 1997 to reflect law and other changes effective through 30 September 2002. (Filed as Exhibit 10.1 to the Company's Form 10-Q Report filed for the quarter ended 31 December 2003.)*
10.22	Form of Severance Agreement that the Company has with one U.S. Executive Officer, effective 20 November 2003. (Filed as Exhibit 10.25 to the Company's Form 10-K Report for the fiscal year ended 30 September 2003.)*
12	Computation of Ratios of Earnings to Fixed Charges.

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Exhibit No.	Description
13	2004 Financial Review Section of the Annual Report to Shareholders for the fiscal year ended 30 September 2004, which is furnished to the Commission for information only and not filed except as portions are expressly incorporated by reference in this Report.
14	Code of Ethics. (Filed as Exhibit 14 to the Company's Form 10-K Report for the fiscal year ended 30 September 2003.)*
21	Subsidiaries of the registrant.
(23)	Consents of Experts and Counsel.
23.1	Consent of Independent Registered Public Accounting Firm.
24	Power of Attorney.
(31)	Rule 13a-14(a)/15d-14(a) Certifications.
31.1	Certification by the Principal Executive Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification by the Principal Financial Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
(32)	Section 1350 Certifications.
32.1	Certification by the Principal Executive Officer and Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

*Previously filed as indicated and incorporated herein by reference. Exhibits incorporated by reference are located in SEC File No. 1-4534.

Exhibit 10.5

This document constitutes part of a prospectus covering securities
that have been registered under the Securities Act of 1933.

STOCK OPTION PROGRAM FOR DIRECTORS
(THE “PROGRAM”)

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STOCK OPTION PROGRAM FOR DIRECTORS
(THE "PROGRAM")*

1. PURPOSES OF THE PROGRAM

The purposes of this Program are (i) to assist Air Products and Chemicals, Inc. (the "Company") in attracting and retaining individuals of superior talent, experience, and achievement as directors of the Company and (ii) to associate more closely the interests of such directors with those of the Company's shareholders by encouraging and enabling directors to acquire a financial interest in the Company through ownership in equity securities of the Company. The Program is provided under the Air Products and Chemicals, Inc. Long Term Incentive Plan (the "Plan") and is subject to the terms thereof. Certain capitalized terms used herein have the meanings set forth in Section 6(i) hereof.

2. ELIGIBILITY AND ADMINISTRATION

Participation in the Program is limited to directors of the Company who have not ever been employees of the Company or any of its subsidiaries or their respective predecessors. The Program is administered by the Corporate Governance and Nominating Committee of the Board of Directors (the "Committee").

3. AWARDS

Two thousand (2,000) stock options ("Options" or "Stock Options") shall automatically be granted to each eligible director who is serving as a director of the Company immediately following each annual organizational meeting of the Board of Directors. Each such director shall receive an option agreement dated as of the date of each such organizational meeting of the Board of Directors, which shall be the date of grant of each such award, evidencing the automatic annual award of such Stock Options pursuant to this Program. Stock Options are rights to purchase shares of common stock of the Company, par value $1.00 ("Common Stock").(1)/

(*) The Air Products and Chemicals, Inc. Stock Option Plan for Directors was adopted by Board resolution on 21 October 1993; effective 27 January 1994; amended effective 15 October 1998 and 21 October 1999. Effective 23 January 2003 this Plan was combined with the Long Term Incentive Plan and offered as a program thereunder.

(1)/ Amended and approved by the Board of Directors on 15 October 1998; effective 15 October 1998.

All Stock Options granted under the Program shall be granted on the following terms and conditions:

(a) Price. The purchase price per share of Common Stock covered by each Stock Option shall be 100% of the Fair Market Value of a share of Common Stock on the date of grant of such Option.

(b) Term and Exercisability. Stock Options shall become exercisable six (6) months from date of grant, and shall remain exercisable until the earlier of:

(i) ten (10) years and one (1) day from the date of grant, and

(ii) the date as of which the director ceases to serve as a member of the Board of Directors.

Notwithstanding the foregoing, the director (in the case he or she ceases to serve on the Board of Directors of the Company by reason of retirement or disability) or, the director’s Designated Beneficiary or, if none, his or her legal representative (in the case of the director’s death before or after retirement or disability), shall continue to have the same rights to exercise any unexercised portion of the director’s Stock Option which is exercisable at the time of such termination or death, as the director would have had if he or she had continued to be an active director of the Company.

(c) Exercise. A director wishing to exercise his or her Stock Option, in whole or in part, shall give written notice of such exercise to the Company, accompanied by full payment of the purchase price. The date of receipt of such notice and payment shall be the “Exercise Date” for such Stock Option or portion thereof.

(d) Payment. The purchase price of shares of Common Stock purchased upon exercise of any Stock Option shall be paid in full in cash at the time of exercise of the Option. Subject to any administrative rules from time to time adopted by the Committee, payment of the purchase price may also be made by delivery of an irrevocable exercise notice coupled with irrevocable instructions to a designated broker to simultaneously sell the underlying shares of Common Stock and deliver to the Company on the settlement date the portion of the proceeds representing the purchase price.

4. DILUTION ADJUSTMENTS

Notwithstanding any other provision of the Plan, in the event of any change in the outstanding shares of Common Stock by reason of any stock dividend or split, recapitalization, merger, consolidation, combination or exchange of shares or other similar corporate change, an equitable adjustment shall be made, as determined by the Board of Directors (but subject to the first paragraph of Section 6), in (i) the kind of shares subject to Stock Options, (ii) the number or kind of shares or purchase price per share subject to outstanding Stock Options, (iii) any other aspect or aspects of the Program or outstanding awards made thereunder as specified by the Board of Directors, or (iv) any combination of the foregoing, as shall be necessary to maintain the proportionate interest of the optionees and to preserve, without increasing, the value of outstanding awards. Such adjustments shall be made by the Board of Directors and shall be conclusive and binding for all purposes of the Program and Plan.

5. MISCELLANEOUS PROVISIONS

(a) The holder of a Stock Option shall have no rights as a Company shareholder with respect thereto unless, and until the date as of which, certificates for shares of Common Stock are issued upon exercise or payment in respect of such award.

(b) No Stock Option or any rights or interests therein of the recipient thereof shall be assignable or transferable by such recipient except by gift to his or her family member(s) or to trust(s) of which such family member(s) are beneficiaries (but only on and after the date upon which, and to the extent such Stock Options have become exercisable in accordance with their terms, and subject to the administrative procedures and conditions set forth in the “Administrative Procedures Regarding Transfers of Stock Option Awards dated 21 October 1999” attached as Exhibit A); to his or her Designated Beneficiary; or by will or the laws of descent and distribution.

(c) All Stock Options granted under the Program shall be evidenced by agreements in such form and containing and/or incorporating such terms and conditions as are set forth in this Program.

(d) No shares of Common Stock shall be issued, delivered or transferred upon exercise of any Stock Options granted hereunder unless and until all legal requirements applicable to the issuance, delivery or transfer of such shares have been complied with including, without limitation, compliance with the provisions of the Securities Act of 1933, as amended, the Securities Exchange Act of 1934, as amended, and the applicable requirements of the exchanges on which the Company’s Common Stock may, at the time, be listed.

(e) The Company shall require, as a condition of delivery of shares of Common Stock upon the exercise of a Stock Option, that the director or other person receiving such Common Stock pay to the Company at the time of distribution thereof the amount

of any taxes which the Company is required to withhold with respect to such exercise. The obligation of the Company to make delivery of Common Stock shall be subject to currency or other restrictions imposed by any government.

(f) Distributions of shares of Common Stock upon exercise, in payment or in respect of awards made under this Program, may be made either from shares of authorized but unissued Common Stock reserved for such purpose by the Board of Directors or from shares of authorized and issued Common Stock reacquired by the Company and held in its treasury, as from time to time determined by the Board of Directors.

(g) The costs and expenses of administering this Program shall be borne by the Company and not charged to any award nor to any director receiving an award.

(h) This Program shall be unfunded. The Company shall not be required to establish any special or separate fund or to make any other segregation of assets to assure the payment of any award under this Program and payment of awards shall be subordinate to the claims of the Company's general creditors.

(i) In addition to the terms defined elsewhere herein, the following terms as used in this Program description shall have the following meanings:

"Designated Beneficiary" shall mean the person or persons last designated as such by the Participant on a form filed by him or her with the Company.

"Fair Market Value" of a share of Common Stock of the Company on any date set forth herein shall mean an amount equal to the mean of the high and low sale prices on the New York Stock Exchange, as reported on the composite transaction tape, for such date.

"Retirement" shall mean (i) resigning from serving as a director, failing to stand for re-election as a director or failing to be re-elected as a director after being duly nominated, and (ii) in any such case having the right to immediate or deferred pension benefits under the Company's Pension Plan for Directors as then in effect or, in the absence of such Pension Plan or another pension plan being applicable to any director, after at least six (6) full years of service as a director of the Company. More than six (6) months' service during any twelve (12) month period after a director's first election by the shareholders to the Board shall be considered as a full year's service for this purpose.

(j) Notices. All notices to the Company under this Program shall be in writing and shall be given as follows:

Corporate Secretary
Air Products and Chemicals, Inc.
7201 Hamilton Boulevard

Allentown, PA 18195-1501

(k) Governing Law. This Program shall be governed by the laws of the Commonwealth of Pennsylvania and shall be construed for all purposes in accordance with the laws of said Commonwealth except as may be required by the General Corporation Law of Delaware or by applicable federal law.

6. AMENDMENT AND DISCONTINUANCE; NO DISCRETION

The Board of Directors of the Company may amend or modify this Program; provided, however, that no amendment may affect a director’s rights under any award of Stock Options under this Program made prior to such amendment without such director’s consent. The Board of Directors of the Company may suspend or discontinue this Program in whole or in part at any time, but any such suspension or discontinuance shall not affect awards of Stock Options granted under this Program prior thereto.

NOTICE OF
EXERCISE OF STOCK OPTION
GRANTED UNDER THE AIR PRODUCTS AND CHEMICALS, INC. (THE “COMPANY”)
STOCK OPTION PROGRAM FOR DIRECTORS (THE “PROGRAM”)

To: The Corporate Secretary
Air Products and Chemicals, Inc.

On __________ the Company granted me options under the Program to purchase shares of its Common Stock at a price of $__________ per share.

I hereby give notice of exercise of my options to purchase __________ of such shares by payment to the Company of $__________, the aggregate option exercise price for such shares. My payment is made by a CHECK enclosed herewith and/or WIRE TRANSFER of immediately available funds payable to the Company.

DELIVERY INSTRUCTIONS

Please register the shares in the following manner:		Delivery Instructions:
Director’s Name	____________________	____________________
Address	____________________	____________________
	____________________	____________________
	____________________	____________________
Soc. Sec. #	____________________	____________________

____
Signature of Director

Acknowledgment and Receipt of Completed Option Exercise Notice Form and Payment of Option Exercise Price:

____
Corporate Secretary’s Office

____
Exercise Date

ADMINISTRATIVE PROCEDURES REGARDING TRANSFERS OF STOCK
OPTION AWARDS (THE "PROCEDURES")

Stock option awards granted under the Program are transferable by the recipient of the award (the "director") on and after the date upon which, and to the extent, the option has become exercisable. Options may be transferred only in accordance with these Procedures. DIRECTORS ARE ENCOURAGED TO SEEK FINANCIAL AND TAX PLANNING ADVICE PRIOR TO TRANSFERRING AN OPTION.

1. Exercisable options may be transferred by the director only by gift and only to the director's family members or to trusts of which such family members are beneficiaries. Family members include any child, stepchild, grandchild, parent, stepparent, grandparent, spouse, sibling, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law, including adoptive relationships.

2. Prior to making any transfer, the director and transferee must complete and sign the attached Election to Transfer Stock Options form and return it to the Corporate Secretary's Office. Transfers will not be effective until the form is received, acknowledged and accepted by the Secretary or an Assistant Corporate Secretary.

3. Following transfer, any Designation of Beneficiary previously filed by the director relating to transferred options is void and of no further force and effect as to the transferred options; and the transferred options may not be subsequently transferred by the transferee except by will or the laws of descent and distribution.

4. Except as otherwise provided in these Procedures, the transfer of options to the transferee also transfers the ancillary rights associated with the options under the applicable award agreement and the Program (references herein to "options" to include both the stock options and such ancillary rights); and following transfer, the options will continue to be subject to the same terms and conditions as were applicable immediately prior to transfer under the applicable award agreement and the Program.

5. Certain U.S. Tax Considerations

U.S. Resident Directors

Upon Transfer:

- A director will incur gift taxes (including the generation skipping transfer tax, if applicable) on the transfer on the value of the option at the time of transfer unless the gift is incomplete, (e.g. if the director retained the power to determine when the options were exercised or to prevent sale of the optioned shares, the gift may not be complete for gift tax purposes). The Internal Revenue Service will respect the value placed on an option for gift tax purposes if the value is determined using a generally recognized option pricing model that takes into account exercise price, expected term, current trading price, expected volatility, expected dividends, and risk-free interest rates during the option's term. Neither the option nor the optioned shares will be included in the director's estate.

Upon Exercise:

- When the transferee exercises, income is imputed to the director and will be reflected on the director's Form 1099.

Nonresident Directors

- Nonresident directors will not be subject to gift tax on transfer of stock options. Neither the option nor the optioned shares will be included in the director's estate. Stock options will be subject to U.S. income tax upon the transferee's exercise unless exempted by treaty. The Company is required to withhold U.S. income taxes upon exercises by a nonresident where the income arising therefrom is not exempt by treaty.

6. Certain U.S. Securities Laws Considerations for Active Directors.

- We strongly recommend that while engaged in service to the Company, directors discuss in advance with the Corporate Secretary or his or her designee the possible implications of transferring options to enable the Company to assist the director in complying with the securities laws, including preparing any required reports for filing with the Securities and Exchange Commission and the New York Stock Exchange. The transfer of an option must be reported as a gift transaction on the director's Form 5 (or voluntarily on an earlier Form 4).

- If the transferee is a family member sharing the director's household or for whom the director is financially responsible, option exercise transactions by the transferee would also (a) need to be reported by the director on a Form 4 or 5, and any sale of the shares could be matched against non-exempt purchases made by the director,

resulting in short-swing profit liability to the director; and (b) be limited to quarterly window periods for trading in Company stock.

- With regard to transfer to trusts for family members, if the director does not have the power to revoke the trust (without the consent of another person) and does not have investment or voting power over the options (or shares obtained upon exercise) held by the trust, neither the trust nor the trustee will generally be subject to Section 16 nor will trust transactions be attributed to the director or subject to window periods. If the trustee is a Section 16 insider with regard to the Company with no pecuniary interest in, but with investment power over the trust assets, the trustee would be limited to selling the shares obtained by exercising the options only during quarterly window periods.

- A transferee of a director may be subject to certain limitations under Rule 144 concerning, among other things, the number of shares of Company stock which may be sold during any three-month period and satisfaction of a holding period before shares purchased by exercising an Option may be sold.

Air Products and Chemicals, Inc.
(the “Company”)

ELECTION TO TRANSFER STOCK OPTION
Granted Under The Stock Option Program for Directors

Printed name of director or former director to whom options were granted (the “director”): ______________________

Social Security Number of director: ______________________

Address of director: ______________________

____

Telephone number of director: ______________________

I, THE DIRECTOR, HEREBY ELECT TO MAKE A TRANSFER OF A STOCK OPTION GRANTED TO ME AS FOLLOWS:

Printed name of transferee: ______________________

Social Security Number or Tax Identification Number of transferee: ______________________

Address of transferee: ______________________

____

Telephone number of transferee: ______________________

Relationship of transferee to director: ______________________

If transferee is a trust, list names of trustee and beneficiary(s) and relationship of beneficiary(s) to director: ______________________

____

____

Number of shares covered by option to be transferred: ______________________

Date option was awarded to director: ______________________

BY SIGNING BELOW, I, THE DIRECTOR, ACKNOWLEDGE receipt of a copy of the “Administrative Procedures Regarding Transfers of Stock Option Awards” (the “Procedures”). I further acknowledge that upon exercise of the option by the transferee, taxable income will be imputed to me, the director, and reported to the appropriate tax authorities. I understand that I am responsible for any taxes payable as a result of the exercise.

______________________	______________________
Signature of director	Date

BY SIGNING BELOW, THE TRANSFEREE ACKNOWLEDGES receipt of a copy of the Procedures and agrees to comply with and be subject to the terms and conditions pursuant to which the option was granted (as modified by the Procedures), and agree not to further transfer the option.

______________________________	______________________________
Signature of transferee	Date

Receipt of this executed Election form is hereby acknowledged and accepted, and the requested transfer of stock option will be effective this _____ day of _____________, _____.

AIR PRODUCTS AND CHEMICALS, INC.

By: ____
Name:
Title:

DISCUSSION OF TAX AND SOCIAL SECURITY CONSEQUENCES OF THE STOCK OPTION PROGRAM FOR DIRECTORS

The following is a summary of the U.S. tax and Social Security consequences of the Air Products and Chemicals, Inc. Stock Option Program for Directors ("Program"). This is a general summary under current law. You should consult with your personal tax advisor before exercising any Program options. Foreign tax rules are not discussed in this summary and also should be reviewed with your personal tax advisor.

U.S. INCOME TAXES — RESIDENTS

No U.S. income taxation occurs upon the grant of a stock option under the Program. Receipt of Shares upon the exercise of a Program option is subject to federal, state and local income taxes. The Company will report taxable income on a Form 1099. No U.S. tax will be withheld by the Company. As a result you may have to make estimated tax payments in order to avoid penalties for underpayment of estimated tax. In the event of your death prior to exercise of your Program options, your estate or designated beneficiary will be subject to income taxes in the same manner as you would have been with respect to exercise of the Program options. (State or local rules may vary.)

Amount of Income

The amount of taxable income you will recognize with respect to receipt of Shares will be the option spread; i.e., the difference between your exercise price and the fair market value of the Shares, on the date such value is includable in your income for tax purposes ("date of taxation"). "Fair market value" for this purpose is the mean of the NYSE high and low for the date of taxation.

Date of Taxation

The date of taxation generally will be the date of exercise. However, if the optioned stock is subject to Section 16(b) restrictions because you or someone whose transactions are attributed to you made a nonexempt purchase during the six months preceding the exercise, the date of taxation will be deferred until the restrictions lapse.

Basis and Subsequent Sale of Shares

The fair market value of the Shares on the date of taxation will be your basis in the Shares. Any subsequent appreciation or depreciation in the Shares will result in a capital gain or loss if you dispose of the Shares in a taxable transaction. Your holding period will begin on the date of taxation for tax purposes. The gain or loss on a disposition will be deemed to be long-term capital gain or loss, subject to a reduced maximum tax rate, once the Shares have been held

for more than twelve months and an even lower tax rate if the Shares are held for at least five years.

SELF-EMPLOYMENT TAX

The amount of taxable income realized upon exercise of a Plan option for federal income tax purposes is self-employment income subject to self-employment tax at a maximum rate of 15.3%. Self-employment tax generally applies at the same time federal income taxes apply. The Social Security portion of the tax (12.4%) will not apply to income recognized with respect to a Plan option to the extent you already have self-employment income or wages from employment for the year in excess of the Social Security Wage Base ($87,900 in 2004). Gain from the disposition of the Shares will not be subject to self-employment tax. Upon your death, your estate or designated beneficiary is not subject to self-employment tax.

ESTATE TAXES

The fair market value of options that can be exercised by your estate or a designated beneficiary must be included in your gross estate. An estate tax deduction is allowed for items passing to your spouse. An income tax deduction is allowed for any estate tax attributable to an item generating taxable income. Congress enacted legislation that phases out the estate tax in 2002-2009. This legislation sunsets in 2011, however, potentially restoring the tax at its 2001 level.

SOCIAL SECURITY BENEFITS

Director fees are considered earnings for purposes of reducing Social Security benefits in the year earned rather than the year paid. Self-employment income realized upon exercise of a stock option under the Plan will not reduce your Social Security benefits payable in the year of exercise if you have attained age 65 at the time of exercise. If you pay self-employment tax with respect to option exercises under the Plan, your future Social Security benefits may increase.

Exhibit 10.16

This document constitutes part of a prospectus covering securities
that have been registered under the Securities Act of 1933.

DEFERRED COMPENSATION PROGRAM
FOR DIRECTORS

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DEFERRED COMPENSATION PROGRAM
FOR DIRECTORS

1. General

The Deferred Compensation Program for Directors (the "Program") is provided to:

(a) Provide compensation for directors in the form of Company equity securities to align the interests of directors with those of the Company's shareholders ("Mandatory Deferrals"); and

(b) Provide directors the opportunity to defer compensation earned as a director or otherwise in connection with his or her services in connection with the business of the Company and its subsidiaries ("Elective Deferrals").

The Program is provided under the Air Products and Chemicals, Inc. Long-Term Incentive Plan and is subject to the terms thereof.

2. Term

The Air Products and Chemicals, Inc. Deferred Compensation Plan for Directors was adopted effective as of 1 January 1980. Section 9 was revised effective as of 25 January 1990. Section 8 and Section 9 were revised effective as of 15 October 1992. Sections 4, 6, 8, and 9 were revised effective as of 19 October 1995. Sections 1, 4, 5, 7, 8, and 9 were amended effective 21 November 1996. Sections 2, 7, 8, 9(a), 9(b), 17, the first paragraph of 9(c), and the Election Form (Exhibit A) were amended effective 19 May 1998. Section 11 was amended effective 20 September 2001. Section 5(b) was revised effective as of 1 October 2002. Effective 23 January 2003, the Plan was combined with the Long-Term Incentive Plan and offered as a program thereunder.

3. Participants

Any director of the Company who is not an employee of the Company or of a subsidiary of the Company is eligible to participate in the Program.

4. Mandatory Deferrals

There shall be established for each participant, an Air Products Stock Account described under section 5(b) below to which shall be credited all compensation which is to be paid by the Company in the form of deferred stock units in accordance with the Compensation Program for Nonemployee Directors applicable for calendar year 1997 and later periods; and for each participant who had not served as a director for at least six years as of January 1, 1997, the actuarial present value of his or her prorated accrued pension (the "Pension Amount") under the Pension Plan for Directors (the "Pension Plan") as determined in connection with the termination of said Pension Plan.

Dollar amounts to be so credited shall be converted into deferred stock units in the manner described under Section 5(b) below on the quarterly or other specified crediting date for such 1997 and later compensation, and on 21 November 1996, as to the Pension Amount.

5. Elective Deferrals

Participants may elect to defer receipt of all or a specified portion of the compensation (exclusive of expense reimbursements) otherwise payable to him or her in cash for serving on the Board of Directors of the Company, attending meetings or committee meetings thereof or performing other services in connection with the business of the Company and its subsidiaries. Such compensation will be credited on the date the compensation is otherwise payable, to one or both of the following hypothetical investment accounts ("Accounts") as directed by the participant:

(a) An account deemed to earn interest at rates established on the first business day of each calendar quarter based upon the published average long-term yields of corporate bonds of "A" rated Industrial Companies appearing in Moody's Bond Survey or an equivalent Bond Rating Service on such day (the "Interest Account"); and

(b) An account (the "Air Products Stock Account") deemed to be invested in Air Products and Chemicals, Inc. common stock, par value $1.00 ("common stock"). The Company shall credit the Air Products Stock Account with that number of units (including fractions) obtained by dividing the amount of such deferred compensation by the Fair Market Value of a share of common stock (i) on the second business day before the date credited to the Air Products Stock Account for retainer and meeting fees, and (ii) on the effective date specified in the Compensation Program for Non-employee Directors for crediting Directors with initial and annual deferred stock awards. For purposes of the Plan, Fair Market Value of a share of common stock on any date (the "valuation date") shall be equal to

the mean of the high and low sale prices on the New York Stock Exchange, as reported on the composite transaction tape, for such date, or, if no sales were quoted on such date, on the most recent preceding date on which sales were quoted. The units thus calculated are herein referred to as "deferred stock units."

Nonemployee directors who had served for six years or more within the meaning of the Pension Plan as of January 1, 1997, may elect to have the actuarial present value of his or her accrued pension benefit under the Pension Plan credited to the Air Products Stock Account on or before December 31, 1996. Such Pension Amount shall be credited and converted to deferred stock units in the manner described in Section 5(b) above, as of the business day the Company's Corporate Secretary's Office receives an Election Form therefor (by mail or fax); and using such date as the valuation date for determining Fair Market Value.

6. Earnings on Accounts

Each participant's Accounts will be credited on behalf of such participant with interest on deferred compensation credited to the Interest Account, and with dividend equivalents on deferred compensation credited to the Air Products Stock Account on behalf of such participant, as provided below, from the date credited until 31 December of the year preceding payment unless payment is made because of death or a Change in Control, in which event interest will be credited until the date of death or the date of termination of service as a director following the Change in Control, respectively.

(a) Earnings on Interest Account. Interest shall be compounded quarterly.

(b) Earnings on Air Products Stock Account. Earnings shall be credited quarterly in an amount equal to the dividends payable during the quarter just ended with respect to that number of shares of Air Products Stock equal to the number of deferred stock units credited to the Air Products Stock Account as of the end of the prior quarter. The amount so credited shall then be converted into deferred stock units in the manner described under Section 5(b) above using the quarterly crediting date as the valuation date for determining Fair Market Value.

7. Time and Manner of Making Elective Deferrals

An election to defer compensation must be made by a director prior to the time such compensation is earned. An election shall continue in effect until the end of the participant's service to the Company as a director or until the Company is notified in writing of the revocation or modification of the election, whichever shall occur first.

A participant may elect, modify or revoke a prior election to defer compensation by giving written notice to the Company in a form substantially similar to the Election Form attached hereto as Exhibit A (the "Election Form"). Such Election Form shall specify:

(a) The amount or percentage of compensation to be deferred beginning on a future date specified in the notice until such notice is revoked or modified as to future compensation (the "Elective Deferred Compensation Amount");

(b) The percentage of the Elective Deferred Compensation Amount to be credited to the Interest Account and the percentage to be credited to the Air Products Stock Account; and

(c) The timing of payment, i.e., either a lump-sum payment or a specified number of consecutive annual installment payments (not to exceed ten) of all Elective Deferred Compensation Amounts, and the year in which the lump-sum payment is to be received or the first annual installment payment is to commence.

Any modification or revocation of a prior election described in Section 7(a) or 7(b) above shall relate only to future compensation, and shall not apply to any amounts previously credited to the participant's account.

8. Timing of Payment of Mandatory Deferrals

The amount of each Mandatory Deferral (the "Mandatory Deferred Compensation Amount") will be paid as a lump sum in the first year after the year in which service as a director ends unless the participant has an Elective Deferral in effect at the time of crediting the Mandatory Deferral, in which case the participant's election as to time of payment of the Elective Deferral will also govern the time of payment of the Mandatory Deferral.

9. Payment of Deferred Compensation

No payment may be made from the participant's Accounts in respect of Elective Deferred Compensation Amounts or Mandatory Deferred Compensation Amounts (together, "Deferred Compensation Amount") except as provided below.

(a) Changes in Election of Timing of Payment. A participant may change his or her election in regard to the timing of payment of his or her Deferred Compensation Amount as described in Section 7(c) above, by so specifying in an Election Form. Such a change in election of timing of payment will

become effective one year from the date the Election Form is received by the Company unless payments under a prior election commence before such effective date, in which case the new election will expire and the prior election will control the timing of payment of all Deferred Compensation Amounts. Such a change in election of timing of payment, when effective, shall supersede all prior elections and shall apply to all of the participant's prior and future Deferred Compensation Amounts, until a later election becomes effective.

(b) Payment Following Termination of Service. The value of each Deferred Compensation Amount credited to the Interest Account of a participant's Plan account is payable in cash, and the value of each Deferred Compensation Amount credited to the Air Products Stock Account is payable by delivery of a share of common stock for each deferred stock unit credited to the participant's Account, in either case in a lump sum or in annual installments, in accordance with the participant's election.

All payments from a participant's Accounts must be completed by the tenth year after the year in which service as a director terminates. All payments will be made in January of the applicable year or as soon thereafter as reasonably possible. If annual installments are to be paid, the amount of the first payment shall be a fraction of the value of the participant's Accounts attributable to the particular Deferred Compensation Amount as of the 31 December preceding payment, the numerator of which is one and the denominator of which is the total number of such installments elected. The amount of each subsequent payment shall be a fraction of the value as of the 31 December preceding each subsequent payment, the numerator of which is one and the denominator of which is the total number of installments elected minus the number of installments previously paid as to such Deferred Compensation Amount. The number of shares of common stock to be delivered in payment from the Air Products Stock Account shall be equal to the number of deferred stock units represented by the payment owed, calculated as aforesaid, rounded up to the next whole share of common stock.

(c) Accelerated Payment. Notwithstanding the deferral period and timing of payment determined in accordance with Sections 9(a) and (b) above, the participant's Accounts shall be paid on an accelerated basis as follows under the circumstances described below (including, under the circumstances described in Section 9(c)(i) or (iii) below, any deferred stock units which may not yet have vested).

(i) Payment on Death. In the event of a participant's death, the value of his or her Accounts (including interest and dividend equivalents)

determined as of the date of death shall be paid in a single cash lump sum to the participant's estate or designated beneficiary on the earlier of the January 15 or July 15 following such date or as soon thereafter as reasonably possible. The amount of any cash payment in respect of deferred stock units in the Air Products Stock Account shall be determined by multiplying the number of such units, including fractional units, by the Fair Market Value of a share of common stock as of the date of death.

(ii) Change in Legal Circumstances. In the event of a Change in Legal Circumstance, the Nominating and Corporate Governance Committee of the Board of Directors may, in its sole discretion, authorize the immediate distribution of the participant's Accounts or appropriate modification to the terms of deferral of a participant domiciled outside of the United States. A Change in Legal Circumstances shall be deemed to occur when, due to a change in the laws or regulations of the United States or the country of domicile, the terms of deferral operate as a disincentive to service on the Board or otherwise become inconsistent with the purpose of the Program.

(iii) Change in Control. In the event of a "Change in Control" of the Company followed by a participant's termination of service as a Director of the Company, the value of his or her Accounts (including interest and dividend equivalents) determined as of the date of termination of service as a Director following or in connection with the Change in Control, shall be immediately due and payable to the participant in a single cash lump sum. The amount of any cash payment in respect of deferred stock units in the Air Products Stock Account shall be determined by multiplying the number of such units, including fractional units, by the Fair Market Value of a share of common stock as of such date of termination of service.

The term "Change in Control" shall mean the first to occur of any one of the events described below:

(x) Stock Acquisition. Any "person" (as such term is used in Sections 13(d) and 14(d)(2) of the Securities Exchange Act of 1934 (the "Act")), other than the Company or a corporation, a majority of whose outstanding stock entitled to vote is owned, directly or indirectly, by the Company, or a trustee of an employee benefit plan sponsored solely by the Company and/or such a corporation, is or becomes, other than by purchase from the Company or such a corporation, the "beneficial owner" (as such term is defined in Rule 13d-3 under the Act), directly or

indirectly, of securities of the Company representing 20% or more of the combined voting power of the Company's then outstanding voting securities. Such a Change in Control shall be deemed to have occurred on the first to occur of the date securities are first purchased by a tender or exchange offeror, the date on which the Company first learns of acquisition of 20% of such securities, or the later of the effective date of any agreement for the merger, consolidation or other reorganization of the Company or the date of approval thereof by a majority of the Company shareholders, as the case may be.

(y) Change in Board. During any period of two consecutive years, individuals who at the beginning of such period were members of the Board of Directors cease for any reason to constitute at least a majority of the Board of Directors, unless the election or nomination for election by the Company's shareholders of each new director was approved by a vote of at least two-thirds of the directors then still in office who were directors at the beginning of the period. Such a Change in Control shall be deemed to have occurred on the date upon which the requisite majority of directors fails to be elected by the shareholders of the Company.

(z) Other Events. Any other event or series of events which, notwithstanding any other provision of this definition, is determined, by a majority of the outside members of the Board of Directors of the Company serving in office at the time such event or events occur, to constitute a change in control of the Company for purposes of this Program. Such a Change in Control shall be deemed to have occurred on the date of such determination or on such other date as such majority of outside members of the Board shall specify.

(d) Miscellaneous Provisions.

(i) Withholding of Taxes. The rights of a participant to payments under this Program shall be subject to the Company's obligations at any time to withhold income or other taxes from such payments including, without limitation, by reducing the number of shares of common stock to be distributed in payment of deferred stock units by the number of shares equal in value to the amount of such taxes required to be withheld, using the date of issuance of the shares as the valuation date for determining Fair Market Value.

(ii) Rights as to Common Stock. No participant with deferred compensation credited to the Air Products Stock Account shall have

rights as a Company shareholder with respect thereto unless, and until the date as of which, certificates for shares of common stock are issued upon payment of such deferred compensation. No shares of common stock shall be issued and delivered hereunder unless and until all legal requirements applicable to the issuance, delivery or transfer of such shares have been complied with including, without limitation, compliance with the provisions of the Act and of the Securities Act of 1993, as amended, and the applicable requirements of the exchanges on which the Company's common stock may, at the time, be listed. Distributions of shares of common stock in payment under this Program may be made either from shares of authorized but unissued common stock reserved for such purpose by the Board of Directors or from shares of authorized and issued common stock reacquired by the Company and held in its treasury, as from time to time determined by, or pursuant to delegations from, the Board of Directors.

(iii) Adjustments to Avoid Dilution. In the event of any change in the common stock of the Company by reason of any stock dividend or split, recapitalization, merger, consolidation, combination or exchange of shares, or a rights offering to purchase common stock at a price substantially below fair market value, or other similar corporate change, including without limitation in connection with a Change in Control of the Company, the value and attributes of each deferred stock unit shall be appropriately adjusted consistent with such change to the same extent as if such deferred stock units were issued and outstanding shares of common stock of the Company, so as to preserve, without increasing, the value of deferred compensation credited to each participant's Air Products Stock Account. Such adjustments shall be made by the Board of Directors and shall be conclusive and binding for all purposes of the Program.

10. Participant's Rights Unsecured

The right of any participant to the payment of deferred compensation and earnings thereon under the Program shall be an unsecured and unfunded claim against the general assets of the Company.

11. Nonassignability

The right of a participant to the payment of deferred compensation and earnings thereon under the Program shall not be assigned, transferred, pledged or encumbered or be subject in any manner to alienation or anticipation, except by gift to the participant's family member(s) or to trust(s) of which such family member(s) are beneficiaries and subject to the

administrative procedures and conditions set forth in the "Administrative Procedures Regarding Transfers of the Right to Payment of Deferred Compensation attached hereto as Exhibit B; to his or her designated beneficiary; or by will or the laws of descent and distribution.

12. Statement of Account

Statements will be sent to participants during February as to the value of their Accounts as of the end of December of the previous year.

13. Administration

The Administrator of this Program shall be the Corporate Secretary of the Company. The Administrator shall have authority to adopt rules and regulations for carrying out the Program and to interpret, construe, and implement the provisions thereof.

14. Business Days

If any date specified herein falls on a Saturday, Sunday or legal holiday, such date shall be deemed to refer to the next business day thereafter.

15. Amendment and Termination

This Program may at any time be amended, modified or terminated by the Board of Directors of the Company. No amendment, modification, or termination shall, without the consent of a participant, adversely affect such participant's rights with respect to amounts theretofore accrued in his or her deferred compensation account.

16. Notices

All notices to the Company under this Program shall be in writing and shall be given as follows:

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

17. Governing Law

This Program shall be governed by the laws of the Commonwealth of Pennsylvania and shall be construed for all purposes in accordance with the laws of said state without giving effect to principles of conflicts of laws.

EXHIBIT A
AIR PRODUCTS AND CHEMICALS, INC. (THE “COMPANY”)
DEFERRED COMPENSATION PROGRAM FOR DIRECTORS (THE “PROGRAM”)
ELECTION FORM

To: Corporate Secretary
Air Products and Chemicals, Inc.

I. ELECTIVE DEFERRED COMPENSATION AMOUNT

In accordance with the provisions of the Program, I hereby (check one):

- Elect (or modify my prior election) to defer receipt of compensation otherwise payable to me in cash for services as a Director of the Company in the manner described below (fill in one):

$___________________(amount per quarter)

or

___________________ (percentage per quarter)

- Revoke my election to defer.

This election, modification, or revocation shall take effect beginning on   to affect only compensation earned on and after such date. (Must be a date after the date this Election Form is received by the Company.)

II. INVESTMENT ACCOUNT FOR ELECTIVE DEFERRED COMPENSATION AMOUNT.

The Elective Deferred Compensation Amount is to be deemed invested in the following account(s) (enter a whole percentage from 1% to 100% in each blank, with the two percentages totaling 100%):

___ % in the Interest Account to be paid out in the form of cash.

___ % in the Air Products Stock Account to be distributed in the form of Air Products and Chemicals, Inc. Common Stock. NOTES CONCERNING COMPLIANCE WITH THE FEDERAL SECURITIES LAW:

(1) AN ELECTION TO INVEST OR TO CEASE INVESTING, OR TO CHANGE THE LEVEL OF INVESTING, IN THE AIR PRODUCTS STOCK ACCOUNT WILL ONLY BE EFFECTIVE IF RECEIVED BY THE COMPANY DURING A 30-DAY WINDOW PERIOD DURING WHICH THERE IS NO MATERIAL NON-PUBLIC INFORMATION. Such window periods generally occur during the period commencing after the annual report has been mailed to the shareholders, which usually occurs during the first or second week in December, and the 30-day periods starting on the second trading day after the day when quarterly or annual earnings releases have been issued with commentary, which usually occur in the third or fourth weeks of January, April, July, and October. The Corporate Secretary can advise you as to the precise timing of window periods.

(2) Under current federal securities law, it is necessary to report to the Securities and Exchange Commission the number of units credited to the Air Products Stock Account at the end of each fiscal year, on a Form 5 Report for the year.

EXHIBIT A
AIR PRODUCTS AND CHEMICALS, INC.
DEFERRED COMPENSATION PROGRAM FOR DIRECTORS (THE "PROGRAM")
ELECTION FORM

(continued)

III. TIMING OF PAYMENT OF DEFERRED COMPENSATION AMOUNTS (ELECTIVE AND MANDATORY)

COMPLETE A OR B, BUT NOT BOTH

A. Lump Sum Election

Mandatory Deferred Compensation Amounts and the Elective Deferred Compensation Amount (if any) are to be paid to me in a lump sum (check one):

- In the year my service as a Director ends.

- In the   year after the year in which my service as a Director ends (not to exceed tenth).

B. Installment Election

Mandatory Deferred Compensation Amounts and the Elective Deferred Compensation Amount (if any) are to be paid to me in   (up to 10) consecutive annual installments, the first of which is to be paid in (check one):

- The year in which my service ends.

-     year after the year in which my service ends (the last installment must be paid no later than 10 years after the year in which service ends).

I understand that this payout election, when effective, will apply to all my Deferred Compensation Amounts (Elective and Mandatory) for this and any prior or future year, and will supersede any prior payout election made by me with respect to my Deferred Compensation Amounts.

I understand that this election will become effective one year from the date received by the Corporate Secretary's Office unless payouts under a prior election commence before the effective date; in which case this election will expire and the prior election will control.

Note: Since elections do not take effect for one year, a payment scheduled on or before the first anniversary of the date your service for Air Products ends may prevent a future election made in your last year of service from becoming effective. You should not elect a payment schedule beginning before the second year following termination of your service if you want to preserve maximum flexibility to make future changes in your payment schedule during your last year of service.

EXHIBIT A
AIR PRODUCTS AND CHEMICALS, INC.
DEFERRED COMPENSATION PROGRAM FOR DIRECTORS (THE "PROGRAM")
ELECTION FORM

(continued)

IV. BENEFICIARY DESIGNATION

If I die before receiving all the deferred payments due me under the Program, I understand the value of my Mandatory and Elective Deferred Compensation Amounts will be paid to my estate or designated beneficiary, in a single lump sum cash payment on the earlier of the January 15 or July 15 following the date of my death or as soon thereafter as reasonably possible. (A beneficiary may be designated by delivering written notice of designation to the Corporate Secretary of the Company.)

This Election is subject to the terms of Air Products and Chemicals, Inc. Deferred Compensation Program for Directors, as amended from time to time.

Received on the day of on behalf of the Company.

Signature of Director

By ______________________________ Date: ______________________________
(Assistant) Corporate Secretary

EXHIBIT B

ADMINISTRATIVE PROCEDURES REGARDING TRANSFER OF THE RIGHT
TO PAYMENT OF DEFERRED COMPENSATION

The right to receive payment of deferred compensation and earnings thereon under the Program (a "Payment Right") is transferable by the director participant (the "director") only in accordance with these Procedures. DIRECTORS ARE ENCOURAGED TO SEEK FINANCIAL AND TAX PLANNING ADVICE PRIOR TO TRANSFERRING A PAYMENT RIGHT.

1. Payment Rights may be transferred by directors only by gift and only to the director's family members or to trusts of which such family members are beneficiaries. Family members include any child, stepchild, grandchild, parent, stepparent, grandparent, spouse, sibling, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law, including adoptive relationships.

2. Prior to making any transfer, the director and transferee must complete and sign the attached Election to Transfer Payment Rights form and return it to the Corporate Secretary's Office. Transfers will not be effective until the form is received, acknowledged and accepted by the Secretary or an Assistant Corporate Secretary.

3. Following transfer, any written notice of designation of beneficiary previously filed by the director relating to the Payment Right is void and of no further force and effect; and the transferred Payment Right may not be subsequently transferred by the transferee except by will or the laws of descent and distribution.

4. Except as otherwise provided in these Procedures, the transfer of a Payment Right to the transferee also transfers the ancillary rights associated with the Payment Right under the terms of the Program (references herein to "Payment Right" to include both the Payment Right and such ancillary rights); and following transfer, the Payment Right will continue to be subject to the same terms and conditions as were applicable immediately prior to transfer under the Plan.

5. Certain U.S. Securities Laws Considerations for Active Directors

   - We strongly recommend that while engaged in service to the Company, directors discuss in advance with the Corporate Secretary or his or her designee the possible implications of transferring the director's Payment Right (or altering the terms of any trust to which the Payment Right has been transferred) to enable the Company to assist the director in complying

with the securities laws, including preparing any required reports for filing with the Securities and Exchange Commission and the New York Stock Exchange. Transfer of the Payment Right must be reported as a gift transaction on the director’s Form 5 (or voluntarily on an earlier Form 4).

Air Products and Chemicals, Inc.
(the "Company")

ELECTION TO TRANSFER PAYMENT RIGHTS
Under The Deferred Compensation Program for Directors (the "Program")

Printed name of director or
former director: ______________________________

Social Security Number of director: ______________________________

Address of director: ______________________________

____

Telephone number of director: ______________________________

I, THE DIRECTOR, HEREBY ELECT TO MAKE A TRANSFER OF MY PAYMENT RIGHT AS FOLLOWS:

Printed name of transferee: ______________________________

Social Security Number or Tax Identification Number of transferee: ______________________________

____

Address of transferee: ______________________________

Telephone number of transferee: ______________________________

Relationship of transferee to director: ______________________________

If transferee is a trust, list names of trustee and beneficiary(s) and relationship of beneficiary(s) to director: ______________________________

____

____

____

Dollar amount and/or number of deferred stock units accrued under the director's Accounts as of the end of the most recent calendar quarter:

____

BY SIGNING BELOW, I, THE DIRECTOR, ACKNOWLEDGE receipt of a copy of the "Administrative Procedures Regarding Transfers of Payment Rights" (the "Procedures"). I further acknowledge that upon payment of my Accounts to the transferee, taxable income will be imputed to me, the director, and reported to the appropriate tax authorities. I understand that I am responsible for any taxes payable as a result of such payment.

______________________________	______________________________
Signature of director	Date

BY SIGNING BELOW, THE TRANSFEREE ACKNOWLEDGES receipt of a copy of the Procedures and agrees to comply with and be subject to the terms and conditions of the Plan (as modified by the Procedures), and agree not to further transfer the Payment Right.

Signature of director	Date

Receipt of this executed Election form is hereby acknowledged and accepted, and the requested transfer of stock option will be effective this ____________ _____ day of _________, _________.

AIR PRODUCTS AND CHEMICALS, INC.

By: ______________________________

Name: ______________________________

Title: ______________________________

TAX CONSEQUENCES TO PARTICIPANTS

The following is a general summary under current law of the U.S. tax consequences of participation in the Program. The tax laws could change prior to your retirement or other termination of your service as a director in a way that accelerates taxation of deferred amounts. Legislation proposed by the Administration and others would impose or authorize the U.S. Treasury to impose current taxation on deferred compensation arrangements deemed to be abusive.

Income Taxes

1. Deferred amounts and earnings thereon including any appreciation in value of deferred stock units, are not subject to income tax until distributed.

2. When distributed, the full amount of any cash distributed and the fair market value of any shares distributed will be taxable at the income tax rates then in effect.

3. Depending on the laws in your state of residency, payments may be nontaxable retirement benefits for state and local income tax purposes.

4. Deferred amounts remaining unpaid at your death constitute income in respect of a decedent and will be subject to income tax. Any estate or inheritance tax attributable to the deferred amounts will be deductible by your estate or beneficiaries in computing the income tax.

Estate Tax

Deferred amounts remaining unpaid at your death will be includable in your estate for federal estate tax purposes. An unlimited marital deduction is allowed for property passing to your spouse, which has the effect of removing deferred amounts from your federal taxable estate if you predecease your spouse. Congress enacted legislation in 2001 that phases out the estate tax in 2002-2009. This legislation sunsets in 2011, however, potentially restoring the tax at its 2001 level.

Self-Employment Tax

Self-employment tax will apply to cash and deferred stock units, and earnings thereon including appreciation, in the year payout is received. Self-employment tax does not apply to nonresident aliens. Self-employment tax is imposed currently at a maximum rate of 15.3% on earned income up to the Social Security Wage Base for the particular year ($87,900 for 2004), and 2.9% on earned income in excess of the wage base. Wages received as an employee are taken into account first in determining whether the Social Security Wage Base has been exceeded. Thus, the

15.3% Social Security element of self-employment tax will apply only if you do not have wages or other earned income in excess of the Wage Base. One-half of your self-employment tax liability can be deducted from your adjusted gross income for federal income tax purposes.

Lump-Sum vs. Installment Payout

1. Election of installment payments or a later year lump sum will allow you to defer income taxes on the cash or deferred stock units and earnings and appreciation thereon, as compared to a lump sum payout soon after retirement.

2. Election of a lump-sum payment may reduce your self-employment tax if you do not expect to have other income up to or in excess of the Social Security Wage Base following your retirement from the Board of Directors because the amount of a lump-sum payment in excess of the Social Security Wage Base will escape the Social Security portion of self-employment tax.

Exhibit 10.19

TERMS AND CONDITIONS

AIR PRODUCTS'
STOCK INCENTIVE AWARD
("AWARD")

These Terms and Conditions govern the stock options awarded to certain Air Products employees as of 1 October 2002 ("Options"). Additional capitalized words are defined in Section 4.

1. OPTIONS

1.1 Grants. Options to purchase shares of Common Stock from the Company shall be granted to such Eligible Employees as the Vice President-Human Resources shall select. Options shall be evidenced by an Option grant letter which shall specify the number of shares of Common Stock, as determined by the Vice President-Human Resources, to which it pertains and which shall be subject to these Terms and Conditions.

1.2 Grant Date. The date of grant of the Option is 1 October 2002.

1.3 Option Price. Shares of Common Stock can be purchased under an Option at the price of US $43.09 per share.

1.4 Option Term. Each Option that has not been Exercised or terminated shall expire at midnight Eastern Standard Time on 1 October 2012.

1.5 Exercisability. Except as provided below, Options may be Exercised beginning on 1 October 2005 until the expiration of the Option term.

1.6 Method of Exercise. The Company will employ an outside service firm to handle all Option administration. That firm will provide employees with specific instructions on how to exercise their Options and with a description of the various forms of exercise permitted. This information will be provided in a separate communication prior to the date, 1 October 2005, that the Options become exercisable.

1.7 Options Non-Transferable. No Option may be sold, assigned, pledged or otherwise transferred by a Participating Employee during his or her lifetime. During a Participating Employee's

lifetime, only the Participating Employee, or, in the case of incompetency, his or her guardian or legal representative, may exercise his or her Option.

1.8 Death or Retirement. If a Participating Employee's employment by the Company or an Affiliated Organization terminates due to his or her death or Retirement, his or her Option, if unexercised, will not be terminated and may be Exercised for the remainder of the Option term, but no sooner than 1 October 2005, by the former Employee or, in the event of death, his or her Beneficiary.

1.9 Other Terminations.

(a) Involuntary Termination. If a Participating Employee's employment by the Company and all Affiliated Organizations is involuntarily terminated due to Company action necessitated by business conditions, including, but not limited to, job eliminations, workforce reductions, divestitures, sale by the Company of an Affiliated Organization and plant closings, the former Employee's Option, if unexercised, will not be terminated immediately. The Option may be Exercised after his or her termination during the six months following 1 October 2005 or the former Employee's last day of employment, whichever is later.

If a Participating Employee's employment by the Employer is involuntarily terminated for any reason other than Company action described above, his or her Option will be terminated as of the close of business on his or her last day of employment.

(b) Voluntary Terminations. If a Participating Employee's employment by the Employer and all Affiliated Organizations is terminated voluntarily by the Employee for any reason except Retirement, his or her Option shall be terminated as of the close of business on his or her last day of employment.

(c) Determination of Cause for Termination. The Vice President - Human Resources shall determine, in his or her sole discretion, the reason for termination of a Participating Employee's employment.

1.10 Long-Term Disability. If a Participating Employee's employment with the Company and all Affiliated Organizations becomes inactive due to his or her Long-Term Disability, his or her Option, if unexercised, shall not be terminated and may be Exercised for the remainder of the Option

term, but no sooner than 1 October 2005; provided, however, that such a disabled former Employee's Option shall be terminated upon cessation of the Long-Term Disability, unless he or she returns to active employment as an Employee with the Company or an Affiliated Organization, or is involuntarily terminated.

1.11 Leaves of Absence; SEP Program. If a Participating Employee's employment status becomes classified as inactive due to a leave of absence or changes to U. S. Supplemental Employee Program (SEP), his or her Option, if unexercised, may not be Exercised until such time as he or she returns to active employment as an Employee, and in no event earlier than 1 October 2005 nor later than 1 October 2012.

1.12 Lay Offs. If a Participating Employee is laid off, his or her Option, if unexercised, may not be Exercised until such time as he or she returns to active employment as an Employee, and in no event earlier than 1 October 2005 nor later than 1 October 2012.

1.13 Termination During Inactive Status. In the event that a Participating Employee with an outstanding Option dies, retires, or develops a permanent and total disability while their ability to Exercise is suspended because their employment classification is Layoff, Leave of Absence, or SEP, then that individual or their Beneficiary will be permitted a time period to Exercise their Option not to exceed six (6) months from the later of their death, disability or Retirement and 1 October 2005, and extending not later than 1 October 2012.

1.14 Foreign Residents. The Vice President — Human Resources shall have authority to determine, adjust and modify the terms and conditions of Options for Participating Employees working outside the United States to fulfill the purposes of the Award. Without limiting the foregoing, the Vice President - Human Resources may make deviations from or additions to these Terms and Conditions if necessary or advisable to comply with, or obtain favorable treatment for Participants or the Employer under laws in other countries in which the Employer operates or has employees, including, without limitation, granting other incentive awards in lieu of Options. All references in these Terms and Conditions to Options and Exercise shall also refer, respectively, to any such other incentive awards and to delivery or payment of any such other incentive awards unless the context clearly requires otherwise. Nothing contained herein shall require the Award to be adjusted or administered in a manner qualifying it for preferential tax treatment in any jurisdiction.

2. DECISIONS AND ADMINISTRATION

2.1 General. The Award is administered by the Vice President — Human Resources. All authority, powers and duties of the Company, whether specifically set forth in these Terms and Conditions or otherwise necessary to carry out the Award, are assigned to the Vice President — Human Resources or his or her delegate.

2.2 Decisions and Interpretation. The Vice President — Human Resources has the right and discretionary authority to decide all questions of eligibility for Options or right to exercise Options, and to construe and interpret these Terms and Conditions and all other aspects of the Award. The Vice President — Human Resources may correct any defect, supply any omission, or reconcile any inconsistency in these Terms and Conditions or in any other writing pertaining to the Award in the manner and to the extent he or she shall deem necessary to carry the Award into effect. Interpretations and decisions made by the Vice President — Human Resources under the Award including, without limitation, determination of eligibility, and determination of the terms and conditions of, and amounts payable with respect to, Options need not be applied in a uniform manner to all Participants similarly situated.

2.3 Procedures. As administrator of the Award, the Vice President — Human Resources shall have the authority to adopt, alter and repeal any administrative rules, guidelines and practices governing the Award that he or she deems advisable. Such procedures may or may not be evidenced in writing.

2.4 Decisions Final. Any decision, interpretation, or other action made or taken in good faith by the Vice President — Human Resources arising out of or in connection with the Award shall be final, binding and conclusive on the Employer, the Participants and all employees of the Employer and their respective heirs, executors, administrators, successors and assigns.

3. GENERAL PROVISIONS

3.1 Amendment. The Vice President — Human Resources may amend the terms and conditions of any Option, prospectively or retroactively, but no such amendment or other action by the Company shall impair the rights of any Participant without the Participant’s consent, except as required to comply with, or obtain approval, qualification, or exemption under, any applicable tax or other laws.

3.2 No Funding. The Award is unfunded. The Company shall not be required to establish any special or separate fund or to make any other segregation of assets to assure the payment of Options. With respect to any payments or delivery of shares not yet made to a Participant by the Company, nothing contained herein shall give any such Participant any rights that are greater than those of a general creditor of the Company.

3.3 Conditions to Issuance or Delivery of Common Stock. All shares of Common Stock delivered under the Award shall be subject to such restrictions on sale by the Participant as the Company may deem advisable under the rules, regulations and other requirements of the Securities and Exchange Commission, any stock exchange upon which the Common Stock is then listed, any applicable federal or state securities law, any applicable corporate law, and any applicable foreign law, and the Company may cause a legend or legends to be put on Common Stock certificates delivered under the Award to make appropriate reference to such restrictions. Further, if, at any time, counsel to the Employer shall be of the opinion that any sale or delivery by the Company of shares of Common Stock pursuant to an Option under the circumstances is, or may be, unlawful, not in compliance with any applicable regulation, rule or order, or that such sale or delivery will or may result in the imposition of excise taxes or penalties under the statutes, rules or regulations of any applicable jurisdiction, the Company shall have no obligation to make such sale or delivery, and the right to exercise any Option shall be suspended until, in the opinion of said counsel, such sale or delivery shall be lawful, in compliance with such applicable regulations, rules or orders and free of such excise taxes or penalties. The Company may limit the number of shares that can be purchased upon Exercise of an Option to limit the volume of trading in Common Stock if counsel to the Company is of the opinion that such limitation is required or advisable under the rules, regulations and other requirements of the Securities and Exchange Commission, any stock exchange upon which the Common Stock is then listed, any applicable federal or state securities law, any applicable corporate law, and any applicable foreign law.

3.4 No Additional Rights. Neither the Award nor the grant of any Option hereunder shall give any Participant or other person any right except rights to purchase Common Stock under these Terms and Conditions or, where applicable, rights to another incentive award which may be made in lieu of an Option under these Terms and Conditions or other applicable terms and conditions. The grant of an Option to a Participating Employee shall not be deemed to create any right of such Employee or any other employee to receive additional awards in the future. Further, no rights are

created with respect to the terms of employment by, or continuance of employment by, or length of employment with, the Employer or any Affiliated Organization; nor shall there be a limitation in any way, except as provided by applicable law, on the right of the Employer or any Affiliated Organization by which an employee is employed to terminate his or her employment at any time.

3.5 Withholding of Taxes. The Employer shall have the right to deduct from all cash or property deliverable to a Participant under the Award any taxes, levies, imposts, deductions, charges or withholdings required by law to be withheld with respect to the delivery of such cash or property. The Employer reserves the right to deduct from wages paid by it to a Participant any amount necessary to pay all or any portion of the withholding taxes required to be withheld incidental to the Exercise of an Option or delivery of any other incentive award made in lieu of an Option. Subject to any terms and conditions which the Vice President — Human Resources may impose, any withholding obligation may be satisfied by reducing the number of shares of Common Stock otherwise deliverable upon Exercise of an Option.

3.6 No Effect on Other Benefits. No Option grant or Exercise shall be deemed compensation for purposes of computing benefits, or otherwise affect any benefits, under any employee benefit plan or program of the Employer or any Affiliated Organization now or subsequently in effect, including, but not limited to, retirement and life insurance plans or programs. Except as otherwise required by governing law, no Option grant or Exercise shall be deemed wages for purposes of legally imposed benefits or emoluments including, but not limited to, mandatory profit sharing, housing allowances, severance pay and vacation or thirteenth month pay.

3.7 Costs. Commissions, charges, taxes or other amounts, of any kind or nature, incurred by a Participant in receiving or Exercising an Option, selling shares under an Option, obtaining share certificates, or otherwise in connection with the Award are the sole responsibility of the Participant.

3.8 Misconduct. In the event the Vice President — Human Resources determines that a Participant has at any time (a) used for personal gain or disclosed to unauthorized persons any confidential or proprietary information or trade secrets of the Employer or Affiliated Organizations, or (b) breached any agreement with, or violated any fiduciary obligation owed to, the Employer or any Affiliated Organization, all outstanding Options held by such Participant shall be terminated as of the date of such determination.

3.9 Non-Stockholder. A Participant shall not be deemed, for any purpose, to be or have rights as a stockholder of the Company with respect to shares of Common Stock subject to the Options until the date as of which such shares of Common Stock are actually issued in the name of the Participant. No adjustments shall be made for dividends or distributions or other rights for which the record date is prior to the date as of which a Participant becomes a stockholder.

3.10 Governing Law. These Terms and Conditions, the Award and actions taken in connection therewith shall be governed and construed in accordance with the laws of the Commonwealth of Pennsylvania.

3.11 Captions. The captions to the several sections of these Terms and Conditions are not a part of the Award or intended to have any legal significance in the interpretation thereof, but are merely guides or labels to assist in locating the several sections hereof.

3.12 Dilution and Other Adjustments. Notwithstanding any other provision of these Terms and Conditions to the contrary, in the event of any change in the outstanding shares of Common Stock by reason of any stock dividend or split, recapitalization, merger, consolidation, combination or exchange of shares or other similar corporate change, an equitable adjustment shall be made in the number and/or kind of shares and/or purchase price per share subject to outstanding Options, to the extent such an adjustment is needed, as determined by the Vice President — Human Resources, to preserve, without increase or decrease, the value of such Options.

4. DEFINITIONS

For purposes of these Terms and Conditions, the following words have the following meanings:

4.1 “Affiliated Organization” means any subsidiary, partnership or other entity in which the Company holds, directly or indirectly, a fifty percent (50%) or greater ownership interest.

4.2 “Beneficiary” means the person or persons who are designated by a Participant as his or her beneficiary for the Option in accordance with beneficiary designation procedures adopted by the outside service provider administering the Options. If there is no such designated Option beneficiary, “Beneficiary” shall mean the person or persons who were most recently named as the beneficiary or beneficiaries of basic life insurance provided to the Participant by an Employer, if any. If there is no

beneficiary named under either of the above methods, the Beneficiary shall be the Participant's estate or other legal representative.

4.3 "Common Stock" means the common stock, US $1.00 par value, of the Company.

4.4 "Company" means Air Products and Chemicals, Inc.

4.5 "Eligible Employee" means an Employee who was employed in an active classification on 1 October 2002, whose salary grade level is 117 or below, (or, in the case of a Participating Subsidiary, an equivalent compensation level) or who is otherwise deemed ineligible for the Company's Long Term Incentive Plan.

4.6 "Employee" means a full or part-time regular employee of the Company or a Participating Subsidiary and shall not include any employee working under the Supplemental Employment Program, the Cooperative Education / Summer Intern Program or any other temporary classification, or any individual who is a consultant, a leased or contract worker or designated as an independent contractor in an agreement with the Employer.

4.6 "Employer" means any one or more of the Company and the Participating Subsidiaries.

4.7 "Exercise" means to purchase shares under an Option.

4.8 "Long-Term Disability" means, with respect to a Participating Employee, to have an inactive employment status reflected in the employment records of the Employer due to a long-term disability.

4.9 "Participant" means a Participating Employee, or any former Participating Employee, who holds an unexercised Option which has not expired or been terminated or, in the event of the death of such a Participating Employee or former Participating Employee, the Beneficiary of such Participating Employee or former Participating Employee.

4.10 "Participating Employee" means an Employee who holds an unexercised Option granted to him or her under Section 1.1 which has not expired or terminated.

4.11 "Participating Subsidiary" means any Affiliated Organization of the Company which has been designated by the Vice-President Human Resources to participate in the Award.

4.12 “Retirement” shall mean termination of employment with the Company and any Affiliated Organization by an employee who has the right to begin receiving immediate annuity retirement benefits from a pension plan sponsored or contributed to by the Company or an Affiliated Organization. In the event the Participating Employee is not covered by any such pension plan, “Retirement” shall be determined from the records of the Company and the Affiliated Organizations.

4.13 “Vice President — Human Resources” means the Vice President — Human Resources of the Company.

IN WITNESS WHEREOF, the Company has caused these Terms and Conditions to be executed by its duly authorized officer as of 1 October 2002.

AIR PRODUCTS AND CHEMICALS, INC.

BY: ____

Chairman, President and
Chief Executive Officer

Exhibit 12

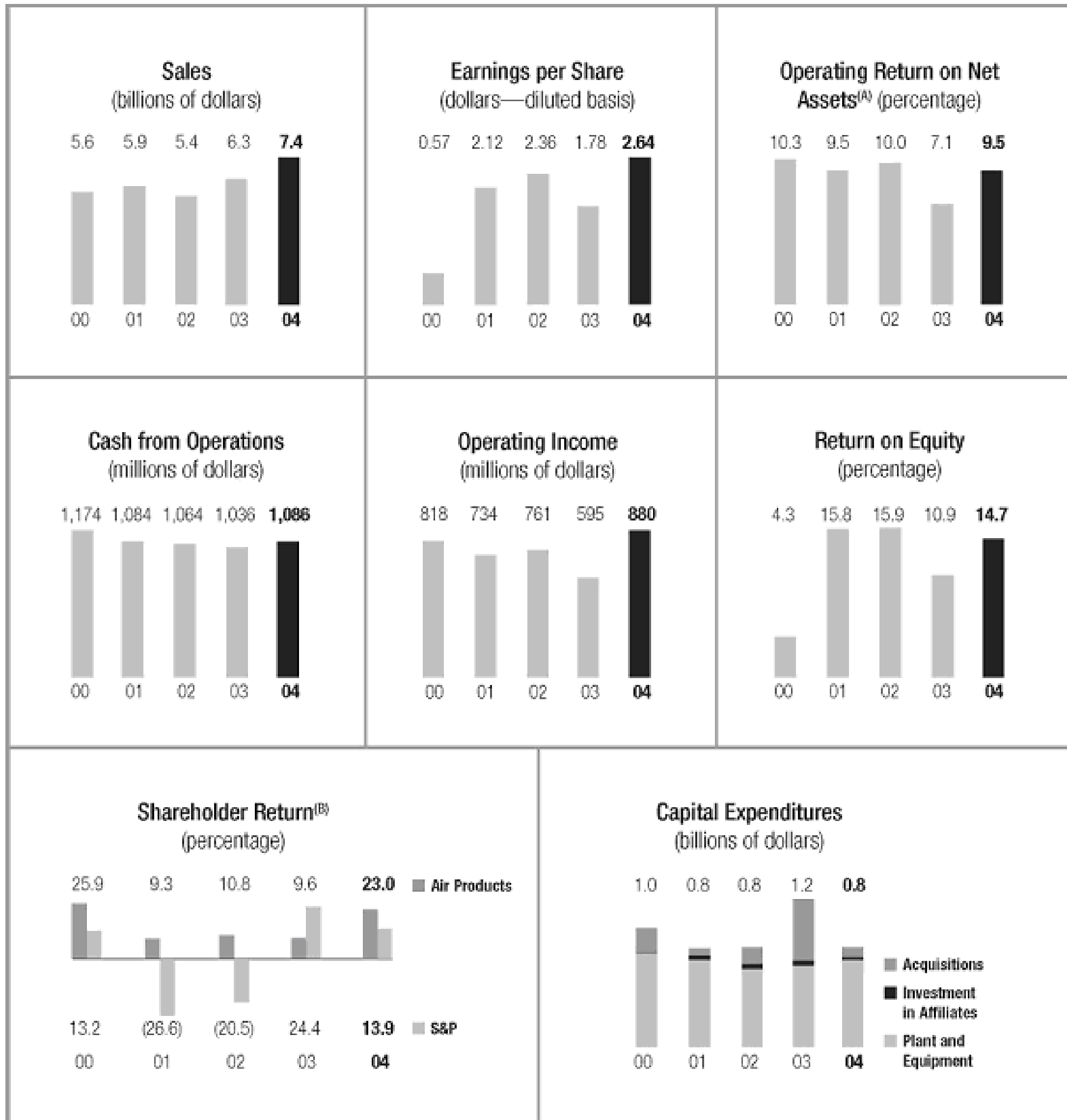
AIR PRODUCTS AND CHEMICALS, INC., AND SUBSIDIARIES

COMPUTATION OF RATIOS OF EARNINGS TO FIXED CHARGES
(Unaudited)

	2000	2001	2002	2003	2004
EARNINGS:					
Income from continuing operations	$124.2	$465.6	$525.4	$400.2	$604.1
Add (deduct):					
Provision for income taxes	(7.5)	196.2	247.5	154.0	232.5
Fixed charges, excluding capitalized interest	232.6	226.5	150.3	150.6	149.3
Capitalized interest amortized during the period	6.6	7.1	7.2	6.5	9.1
Undistributed earnings of less-than-fifty-percent-owned affiliates	(32.1)	(34.3)	(42.8)	(2.6)	(31.1)
Earnings, as adjusted	$323.8	$861.1	$887.6	$708.7	$963.9
FIXED CHARGES:					
Interest on indebtedness, including capital lease obligations	$210.3	$201.6	$126.4	$126.9	$124.4
Capitalized interest	19.7	8.8	11.7	6.2	7.9
Amortization of debt discount premium and expense	3.1	5.6	2.2	2.1	1.4
Portion of rents under operating leases representative of the interest factor	19.3	19.3	21.7	21.6	23.5
Fixed charges	$252.4	$235.3	$162.0	$156.8	$157.2
RATIO OF EARNINGS TO FIXED CHARGES [1] :	1.3	3.7	5.5	4.5	6.1

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

our financial *Trends*



(A) Operating income divided by five-quarter average of total assets less investments in equity affiliates.

(B) Assumes reinvestment of all dividends.

our *Financials*

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Management's Discussion and Analysis

(millions of dollars, except per share)

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All comparisons in the discussion are to the corresponding prior year unless otherwise stated. All amounts presented are in accordance with accounting principles generally accepted in the United States of America.

Air Products

Air Products and Chemicals, Inc. and its subsidiaries (the company) serve customers in technology, energy, healthcare and industrial markets. The company offers a broad portfolio of products, providing atmospheric gases, process and specialty gases, performance materials and chemical intermediates. Geographically diverse, with operations in over 30 countries, the company has sales of $7.4 billion, assets of $10.0 billion and a worldwide workforce of nearly 20,000 employees.

Business Overview

The company manages its operations and reports results by three business segments: Gases, Chemicals and Equipment. In 2004, the company's consolidated sales were composed of approximately 70% Gases, 25% Chemicals, and 5% Equipment. A general description of each segment and the key variables impacting the segment follows. See Note 21 to the consolidated financial statements for additional information on the products, services and markets for each of the business segments.

Gases

The Gases segment involves three principal modes of supply: on-site/pipeline, liquid bulk and packaged gas. About one-third of Gases sales come from the on-site and pipeline supply mode, which generally has long-term cost pass-through type contracts, lending an attractive degree of stability to Gases results. Liquid bulk products make up about one-third of Gases sales and, while volume-sensitive, generally have three- to five-year contracts that provide price stability. The remainder of sales is made up of specialty chemicals and gases for the electronics industry and specialty and industrial cylinder gas supply for electronics, medical/ homecare and other industries.

Electricity is the largest cost input for the production of atmospheric gases. Natural gas is the principal raw material for hydrogen, the vast majority of which is delivered through on-site and pipeline supply arrangements. The company mitigates adverse energy price impacts in the Gases segment through its cost pass-through structures as well as price increases.

Chemicals

The Chemicals segment consists of Performance Materials and Chemical Intermediates. Performance Materials accounted for about 60% of the segment's sales. Performance polymers, the largest product line in Performance Materials, uses vinyl acetate monomer (VAM) as its principal raw material. The cost of VAM generally fluctuates with energy prices and industry supply and demand. Performance polymers are sold in several markets, which are also served by competing products that are not derived from VAM, limiting the ability to adjust prices immediately as the cost of VAM increases. Margin fluctuation results from the timing of and ability to adjust prices in response to changes in VAM costs. About 40% of the segment's sales come from Chemical Intermediates, which include polyurethane intermediates and amines. Approximately 60% of Chemical Intermediates are supplied under long-term contracts under which costs are passed through to customers. Methylamines are sold in competitive markets with prices and margins fluctuating with the cost of methanol and competitors' actions. Methanol, produced from natural gas, is a feedstock in methylamine production. In 2004, the company shut down its methanol plant and contracted to purchase methanol on a short-term basis. The company will begin purchasing methanol under a long-term supply arrangement that is expected to start in the first quarter of 2005. This arrangement is expected to improve methylamines margins.

Equipment

The Equipment segment designs and manufactures cryogenic and gas processing equipment for air separation, gas processing, natural gas liquefaction (LNG), and hydrogen purification. The segment also builds cryogenic transportation containers for liquid helium. Equipment is sold worldwide to companies involved in oil and gas recovery and processing, chemical and petrochemical manufacturing, power generation, and steel and primary metals processing. This business is cyclical, primarily impacted by capital spending for expansion of LNG and general manufacturing capacity.

2004 in Summary

As the economy and manufacturing environment improved globally, volume growth across the company's businesses was strong. The Gases business demonstrated improvements in both sales and operating income. Liquid bulk gas pricing improved, while electronics specialty materials average pricing continued to decline. Higher raw material costs not contractually passed through to customers had a negative effect on the Chemicals segment results. Although the company has implemented price increases across a number of products and is beginning to see success in passing these cost increases through to customers, the Chemicals segment has not yet reached acceptable profit levels. Equipment sales increased from higher air separation plant sales.

As part of its ongoing portfolio management activities, the company continued to execute its growth strategies, including the acquisition of several small U.S. homecare companies. At the end of 2004, the company had implemented its SAP system for about 70% of its businesses, setting the foundation for future productivity improvement. The company remained focused on capital discipline, loading its existing asset base, and improving its return on capital.

Sales of $7,411 were up 18% from the prior year, due to higher volumes across the company's businesses, acquisitions, and favorable currency effects. Sales benefited from acquisitions, which included Ashland Electronic Chemicals, U.S. homecare companies, and Sanwa Chemical Industry Co., Ltd. (Sanwa). Currency contributed favorably to results, as the U.S. dollar weakened, with the majority of the impact coming from the strengthening of the Euro.

Operating income was $880, compared to $595 in the prior year, which included a net expense of $153 for global cost reduction plans. Operating income benefited from the higher volumes, favorable currency effects, and acquisitions.

Partially offsetting these favorable variances, costs increased, driven by higher raw material costs not contractually passed through to customers in the Chemicals segment, higher pension expense, higher incentive compensation expense resulting from increased earnings, and higher operating costs.

Net income was $604, compared to $397 in the prior year, which included an after-tax net expense of $97 for global cost reduction plans. Diluted earnings per share of $2.64 compared to $1.78 in the prior year, which included a $.43 impact for global cost reduction plans. A summary table of changes in earnings per share is presented below:

Changes in Earnings per Share

	2004	2003	Increase (Decrease)
Diluted Earnings per Share	**$2.64**	$1.78	$ .86
Operating Income (after-tax)			
Global cost reduction plans, net			.43
Acquisitions			.08
Divestitures			(.01)
Currency			.16
Underlying business			
Volume			.70
Price/raw materials			(.12)
Costs (excluding pension)			(.24)
Pension expense			(.15)
Operating Income			.85
Other (after-tax)			
Interest expense			.01
Other			—
Other			.01
Total Change in Earnings per Share			$ .86

2005 Outlook

The company is forecasting earnings per share growth again in 2005. This is inclusive of productivity implementation costs. As we enter 2005, we expect domestic manufacturing growth between 3% and 6% for the year. Across our Electronics businesses and in line with external forecasts, we anticipate more modest silicon growth next year, somewhere in the range of 0-5%. Flat-panel display growth is expected to reach double-digit levels. For natural gas, we expect the 2005 price to be comparable with the 2004 average cost. Foreign currencies are expected to be relatively stable. Two risks to this forecast are raw material and energy price volatility and lower economic growth. Both Gases and Chemicals 2005 operating income should benefit from operating leverage on our existing assets and our increased productivity

efforts. Gases is also expected to benefit from new investments across Energy Process Industries (EPI), Electronics and Healthcare. Equipment 2005 profits should be almost double those achieved in 2004.

The company faces challenges in some of its Chemicals businesses. While certain businesses are delivering returns at or above their cost of capital, others are below their cost of capital. The volatility and increase in some raw material costs have reduced margins. The company plans on reducing the volatility of its raw material costs and striving to continue to raise prices aggressively. For all of 2005, our goal is for returns in the Chemicals segment to exceed its cost of capital.

The company also is determined to significantly improve its productivity. Historically, productivity has offset cost inflation. The company expects increased benefits across its supply chains and support functions as a result of its productivity initiatives. In 2005, the company anticipates after-tax implementation costs of $.10 to $.15 per share to achieve productivity savings.

For additional information on the opportunities, challenges and risks on which management is focused, refer to the 2005 Outlook discussions provided throughout the Management's Discussion and Analysis which follows.

Results of Operations

Consolidated Results

	2004	2003	2002
Sales	**$7,411.4**	$6,297.3	$5,401.2
Cost of sales	**5,463.6**	4,613.1	3,815.7
Selling and administrative	**969.4**	842.6	718.1
Research and development	**126.7**	121.1	120.3
Other (income) expense, net	**(27.9)**	(26.5)	(37.1)
Global cost reduction plans, net	**—**	152.5	23.1
Operating Income	**879.6**	594.5	761.1
Equity affiliates' income	**92.8**	94.4	90.0
Gain on sale of U.S. packaged gas business	**—**	—	55.7
Interest expense	**121.0**	123.5	122.3
Effective tax rate	**27.3%**	26.9%	31.4%
Net Income	**604.1**	397.3	525.4
Basic Earnings per Share	**$ 2.70**	$ 1.81	$ 2.42
Diluted Earnings per Share	**$ 2.64**	$ 1.78	$ 2.36

Discussion of Consolidated Results Sales

	% Change from Prior Year **2004**	2003
Acquisitions	**5%**	6%
Divestitures	**(1)%**	(2)%
Currency	**4%**	4%
Natural gas/raw material cost pass through	**1%**	4%
Underlying business		
Volume	**9%**	5%
Price/mix	—	—
Total Consolidated Sales Change	**18%**	17%

2004 vs. 2003

Sales

Sales of $7,411.4 increased 18%, or $1,114.1. Acquisitions, including Ashland Electronic Chemicals, U.S. homecare companies, and Sanwa, accounted for 5% of the increase. Favorable currency effects, driven primarily by the weakening of the U.S. dollar against the Euro, accounted for an additional 4% of the sales growth. Underlying base business growth of 9% resulted primarily from improved volumes in the Gases and Chemicals businesses, as further discussed in the Segment Analysis which follows. Equipment sales increased from higher air separation plant sales, also contributing to the underlying base business sales growth.

Operating Income

Operating income of $879.6 compared to $594.5 in the prior year, which included a net expense of $152.5 for global cost reduction plans. (Refer to Note 3 to the consolidated financial statements for information on the global cost reduction plans.)

Favorable operating income variances resulted from higher volumes for $222, favorable currency effects for $49, and acquisitions for $25. Operating income decreased by $31 from higher raw material costs not contractually passed through to customers or recovered via price increases within the Chemicals segment. Operating income declined $119 from higher costs, including higher pension and incentive compensation expense, and higher operating costs.

Equity Affiliates' Income

Income from equity affiliates of $92.8 decreased $1.6. Current year results, including favorable currency effects and higher income from the Gases Asian and Latin American affiliates, partially offset the impact of $23 in favorable adjustments recorded in 2003 related to prior period divestitures.

2003 vs. 2002

Sales

Sales of $6,297.3 increased 17%, or $896.1. Acquisitions, including the U.S. homecare companies in 2003 and San Fu Gas Company, Ltd. (San Fu) in July 2002, accounted for 6% of the increase. Favorable currency effects, driven primarily by the weakening of the U.S. dollar against the Euro, accounted for 4% of the sales growth. Sales increased an additional 4% from the impact of higher natural gas and raw material costs contractually passed through to customers. Underlying base business growth of 5% resulted principally from improved volumes in the Chemicals and Gases businesses, as discussed in the Segment Analysis which follows.

Operating Income

Operating income in 2003 included a net expense of $152.5 for global cost reduction plans as compared to 2002, which included a net expense of $23.1 for global cost reduction plans.

Operating income of $594.5 declined $166.6, with $129.4 of the decline from higher global cost reduction plan expenses. Operating income declined $154 from higher costs, including pension and SAP implementation expenses and operating costs. Favorable operating income variances resulted from higher volumes for $77, acquisitions for $72, and favorable currency effects for $59. Within the Chemicals segment, operating income decreased by $55 from higher raw material and energy costs. Operating losses not associated with business segments (included in All Other) increased $19 due to expenses associated with the Honeywell litigation in 2003 and favorable adjustments recorded in 2002 related to a divested business and insurance settlements.

Equity Affiliates' Income

Income from equity affiliates of $94.4 increased $4.4. Favorable adjustments of $23 were recorded in 2003 related to divestitures recorded in prior years, partially offset by the impact of consolidating San Fu in the fourth quarter of 2002 and a tax benefit related to an asset revaluation at an Italian affiliate recorded in 2002.

Selling and Administrative Expense (S&A)

	% Change from Prior Year	
	2004	2003
Acquisitions	**6%**	12%
Divestitures	**(1)%**	(3)%
Currency	**4%**	3%
Other Costs	**6%**	5%
Total S&A Change	**15%**	17%

2004 vs. 2003

S&A expense of $969.4 increased 15%, or $126.8. S&A as a percent of sales declined to 13.1% from 13.4% in 2003. Acquisitions, including Ashland Electronic Chemicals and the U.S. homecare companies, increased S&A by 6%. Currency effects, driven by the weakening of the U.S. dollar against the Euro and the Pound Sterling, increased S&A by 4%. Underlying costs increased 6%, primarily due to inflation, higher pension and incentive compensation expenses, and increased spending due to higher volumes in the business, partially offset by cost reduction and productivity efforts.

2003 vs. 2002

S&A increased 17%, or $124.5. S&A as a percent of sales was 13.4%, comparable to 13.3% in the prior year. Acquisitions, principally the U.S. homecare companies, increased S&A by 12%. Divestitures reduced S&A by 3%, primarily from the sale of the U.S. packaged gas business. Currency effects, driven by the strengthening of the Euro, increased S&A by 3%. Underlying costs increased 5%, primarily due to inflation, SAP implementation and pension expenses. These increases in S&A were partially offset by lower incentive compensation costs and improved productivity.

2005 Outlook

S&A will increase in 2005 as a result of acquisitions, primarily the full-year impact of U.S. homecare acquisitions made during 2004 and planned U.S. homecare acquisitions for 2005. The homecare business has a significantly higher level of S&A, as a percent of sales, than the average mix of the company's historic businesses. In addition, the company expects increases in S&A due to inflation and higher incentive compensation expense resulting from increased earnings, and implementation costs to achieve productivity savings. Partially offsetting these impacts, the company expects to realize cost savings from productivity initiatives and savings in the businesses where SAP was implemented in 2004 and earlier.

Research and Development (R&D)
2004 vs. 2003

R&D increased 5%, or $5.6, due to cost inflation and increased pension expense. R&D spending declined as a percent of sales from 1.9% to 1.7% in 2004, as project portfolio management focused R&D on key technologies and eliminated lower-value programs. About 75% of R&D was focused on the company's key growth platforms.

2003 vs. 2002

R&D increased 1% and declined as a percent of sales, from 2.2% to 1.9% in 2003, as the project portfolio was aligned with the company's key growth platforms.

2005 Outlook

The company expects R&D spending at a level comparable to 2004. R&D investment will follow the growth of the company's key growth platforms and the requirements of emerging businesses.

Other (Income) Expense, Net

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

2004 vs. 2003

Other income of $27.9 increased $1.4. Results in 2004 included higher favorable impacts from insurance settlements and the sale of assets and investments. Results in 2004 were unfavorably impacted by higher costs associated with legal matters, including the Honeywell litigation, and higher intangible asset amortization expense.

2003 vs. 2002

Other income of $26.5 declined $10.6. Amortization expense increased, resulting primarily from the intangible assets associated with the U.S. homecare companies acquired in 2003. Results in 2002 included higher favorable impacts from the sale of assets and investments.

Global Cost Reduction Plans

2003 Plan

In 2003, the company recorded an expense of $152.7 for a global cost reduction plan (2003 Plan). This expense included $56.8 for severance and pension-related benefits and $95.9 for asset disposals and facility closures in the Gases and Chemicals segments. The results for 2003 also included the reversal of the balance of the 2002 global cost reduction plan accrual of $.2.

During the third quarter of 2003, the company completed a capacity utilization analysis in several businesses in the Gases segment. To reduce capacity and costs, several facilities ceased operation as of 30 June 2003. An expense of $37.6 was recognized for the closure of these facilities, net of expected recovery from disposal. A decision was made to terminate several incomplete capacity expansion projects. An expense of $13.0 was recognized for the cost of terminating these projects, net of expected recovery from disposal and redeployment. An expense of $3.6 was also recognized for the planned sale of two real estate properties and the termination of several leases for small facilities. These expenses were principally in the North American merchant and tonnage businesses, with a modest amount in the Electronics business.

The rationalization of excess capacity in certain products resulted in a decision to exit certain Chemical Intermediates operations. Late in the quarter ended 30 June 2003, the company decided to pursue the sale of its European methylamines and derivatives business. Expected proceeds from the sale were determined and a loss was recognized for the difference between the carrying value of the assets and the expected net proceeds from the sale. Additional expenses for the closure of the methanol and ammonia plants in Pensacola, Florida, which made products for internal consumption, were also recognized. The total expense for these actions was $41.7.

In addition to the capacity reduction initiatives, the company implemented cost reduction and productivity-related efforts. The divestitures, the capacity reductions and the cost control initiatives will result in the elimination of approximately 460 positions from the company after the completion of the European methylamines and derivatives business divestiture. Approximately 30% of the position reductions relates to capacity rationalization and divestitures. An additional 40% relates to ongoing productivity efforts and balancing engineering resources with project activity, and the remaining 30% relates to a reduction in the number of management positions. The 2003 Plan was completed as expected in June 2004, with the exception of the planned sale of the European methylamines and derivatives business. In April 2004, the company announced the proposed sale of this business, which is pending regulatory approval.

Cost savings from the 2003 Plan realized in 2003 were approximately $3. Cost savings of approximately $38 were realized in 2004. Beyond 2004, the company expects the 2003 Plan to provide annualized cost savings of $59, of which the majority is related to reduced personnel costs. As a result of actions taken in the 2003 and prior years' global cost reduction plans, operating income in 2004 included $36 of incremental benefits over those realized in 2003.

2002 Plan

In 2002, the company recorded an expense of $30.8 for a global cost reduction plan (2002 Plan), including U.S. packaged gas divestiture-related reductions. This expense included $27.1 for severance and pension-related benefits and $3.7 for asset impairments related to the planned sale or closure of two small chemical facilities. The 2002 Plan included 333 position eliminations in the areas of manufacturing, engineering, distribution and overheads. The 2002 Plan was completed as expected in March 2003. The results for 2002 also included the reversal of the balance of the accrual for the 2001 global cost reduction plan of $7.7.

Cost savings from the 2002 Plan realized in 2002 were approximately $3. Cost savings of approximately $16 and $17 were realized in 2003 and 2004, respectively. Beyond 2004, the company expects the 2002 Plan to provide annualized incremental cost savings of $17, of which the majority is related to reduced personnel costs.

Gain on Sale of U.S. Packaged Gas Business

In 2002, the company completed the sale of the majority of its U.S. packaged gas business, excluding the electronic gases and magnetic resonance imaging-related helium operations, to Airgas, Inc. The results for 2002 included a gain of $55.7. Refer to Note 5 to the consolidated financial statements for additional information.

Interest Expense

	2004	2003	2002
Interest incurred	**$126.5**	$127.7	$131.7
Less: interest capitalized	**5.5**	4.2	9.4
Interest expense	**$121.0**	$123.5	$122.3

2004 vs. 2003

Interest incurred decreased $1.2. The decrease resulted from lower average interest rates and a lower average debt balance excluding currency effects, partially offset by the impact of a weaker U.S. dollar on the translation of foreign currency interest.

2003 vs. 2002

Interest incurred decreased $4.0. This decrease resulted from lower average interest rates and a lower average debt balance excluding currency effects, partially offset by the impact of a weaker U.S. dollar on the translation of foreign currency interest. Interest capitalized decreased from the lower level of construction in progress for plant and equipment built by the company.

2005 Outlook

The company expects a modest decrease in interest incurred, due primarily to the expectation of a lower average debt balance and a lower debt portfolio average interest rate in 2005. The 2005 estimate is based on the current estimate of earnings and spending and excludes the possible effects of any future acquisitions other than the ongoing homecare acquisitions, any change in stock repurchase or dividend policy, any change in currency exchange rates or any change in risk management policy.

Effective Tax Rate

The effective tax rate equals the income tax provision divided by income before taxes less minority interest.

2004 vs. 2003

The effective tax rate was 27.3% compared to 26.9%. In 2004, there were increased credits and adjustments from the company's ongoing tax planning process, including such items as improved utilization of foreign tax credits, foreign tax holidays, and certain donations that are eligible for tax deductions. However, the effective tax rate was lower in 2003 due to the relatively low level of book taxable income as a result of the 2003 global cost reduction plan expense.

2003 vs. 2002

The 2003 effective tax rate was 26.9% compared to 31.4%. The difference in the rates was due to higher tax credits and adjustments in 2003 and the nondeductible costs included in the sale of the U.S. packaged gas business in 2002.

2005 Outlook

The company expects the effective tax rate in 2005 to increase slightly, principally attributable to higher income. This estimate is based on current tax law, the current estimate of earnings and credits and adjustments, and the expected distribution of income among various tax jurisdictions.

Net Income
2004 vs. 2003

Net income was $604.1 compared to $397.3 in 2003, which included an after-tax net expense of $96.5 for global cost reduction plans. Diluted earnings per share was $2.64 compared to $1.78 in 2003, which included a $.43 impact from global cost reduction plans. A summary table of changes in earnings per share is presented on page 16.

2003 vs. 2002

Net income was $397.3, or $1.78 diluted earnings per share, as compared to net income of $525.4, or $2.36 diluted earnings per share. 2003 results included a net expense for global cost reduction plans ($96.5 after-tax, or $.43 per share). 2002 results included a gain on the sale of the U.S. packaged gas business ($25.7 after-tax, or $.12 per share) and a net expense for global cost reduction plans ($14.1 after-tax, or $.07 per share). The effective tax rate of 26.9% was lower than the 2002 rate of 31.4%.

Segment Analysis

The company manages its operations and reports results by three business operating segments: Gases, Chemicals and Equipment. Refer to the Business Overview discussion on page 15 for a description of the business segments.

Gases

	2004	2003	2002
Sales	**$5,221.8**	$4,438.3	$3,673.9
Operating income	**800.5**	574.8	600.2
Equity affiliates' income	**78.2**	68.3	75.7

Gases Sales

	% Change from Prior Year	
	2004	2003
Acquisitions	**6%**	9%
Divestitures	**(1)%**	(4)%
Currency	**4%**	5%
Natural gas/raw material cost pass through	**1%**	6%
Underlying business		
Volume	**8%**	5%
Price/mix	—	—
Total Gases Sales Change	**18%**	21%

2004 vs. 2003

The Gases business demonstrated improvements in both sales and operating income, driven by strong volume growth as discussed in more detail below. Strong growth continued in the global healthcare business as the company continued to execute its growth strategy through acquisitions. Spending on acquisitions in 2004 included $75.1 for six small U.S. homecare businesses.

Gases Sales

Sales of $5,221.8 increased 18%, or $783.5. Acquisitions, including U.S. homecare companies and Ashland Electronic Chemicals, accounted for 6% of the increase. Favorable currency effects, driven primarily by the weakening of the U.S. dollar against the Euro and also the Pound Sterling, accounted for an additional 4% sales increase.

Underlying base business sales growth of 8% resulted from improved volumes across the Gases segment, including Electronics, EPI, and the merchant and tonnage businesses.

- Electronic specialty materials volumes increased, as electronics markets continued to improve, including strong growth in the silicon and flat-panel display markets.

- On-site and pipeline volumes in EPI were up 11%, led by stronger hydrogen, oxygen and nitrogen volumes. Hydrogen growth versus the prior year is tracking the ongoing trend for refiners to meet lower sulfur specifications. Volumes benefited from production at a new facility in Lake Charles, Louisiana, which came onstream in the third quarter of 2004.

- Liquid bulk volumes in North America increased 1%. Liquid oxygen (LOX) and liquid nitrogen (LIN) volumes improved along with general U.S. manufacturing growth. Partially offsetting this increase, liquid hydrogen volumes declined from weakness in the government and chemical and process industries sectors.

- Liquid bulk volumes in Europe declined 2%, with the conversion of several liquid customers to on-site supply and lost business.

- Packaged gas volumes in Europe increased 3%, reflecting continued positive manufacturing growth and also benefiting from continued success with new product introductions.

- Asian liquid bulk volumes were up 13%, driven by demand growth across the region.

Overall, the impact of pricing decreased sales slightly, with anticipated lower average selling prices of electronic specialty materials offsetting higher liquid bulk prices in North America and Europe and higher packaged gas prices in Europe.

- Pricing for electronic specialty materials decreased due to a decline in average selling price and customer conversions from cylinder to bulk supply.

- On average, prices for LOX/LIN in North America remained flat.

- LOX/LIN pricing in Europe increased 4%, influenced by continued pricing actions as well as the customer mix effect from the conversion of liquid customers to on-site supply.

Gases Operating Income

Operating income of $800.5 increased $225.7. Operating income in 2003 included a net expense of $92.0 for global cost reduction plans. Favorable operating income variances resulted from higher volumes for $163, favorable currency effects for $35, and acquisitions for $22. Operating income declined $67 from higher costs, including higher pension and incentive compensation expense.

Gases Equity Affiliates' Income

Gases equity affiliates' income of $78.2 increased $9.9. Current year results, including favorable currency effects and higher income from the Asian and Latin American affiliates, more than offset the impact of favorable adjustments of $8 recorded in 2003 associated with two divested cogeneration plant investments.

2003 vs. 2002

Gases Sales

Sales of $4,438.3 increased 21%, or $764.4. Acquisitions, including U.S. homecare companies and Ashland Electronic Chemicals in 2003 and San Fu in July 2002, accounted for 9% of the increase. Divestitures, including the sale of the Canadian packaged gas business in 2003 and the sale of the U.S. packaged gas business in 2002, reduced sales by 4%. Sales increased 5% from favorable currency effects, driven primarily by the weakening of the U.S. dollar against the Euro, and 6% from the impact of higher natural gas cost contractually passed through to customers.

Underlying base business sales growth of 5% resulted from improved volumes across most businesses.

- Electronic specialty materials increased, driven primarily by increased Asian demand.
- On-site and pipeline volumes in EPI were up 5%, led by stronger oxygen, nitrogen and hydrogen volumes.
- Liquid bulk volumes in North America declined 3%, due to weak economic conditions.
- Liquid bulk volumes in Europe during 2003 were at a similar level to 2002.
- Asian liquid bulk volumes were up 12%, driven by strong economic growth, a new plant onstream in southern China, and the loading of existing assets in Southeast Asia.

Overall, the impact of pricing decreased sales slightly.

- Pricing for electronic specialty materials decreased, due to the prolonged nature of the downturn in the electronics industry, excess supply capacity, and customer mix effects.
- On average, prices for LOX/LIN in North America remained flat. Underlying price increases of about 3% were offset by the negative year-on-year impact of lower surcharges.
- LOX/LIN pricing in Europe increased by 2%, consistent with inflation.

Gases Operating Income

Operating income of $574.8 decreased $25.4. Operating income included a net expense of $92.0 for global cost reduction plans as compared to 2002, which included a net expense of $21.0 for global cost reduction plans. Operating income was favorably impacted by higher volumes for $75, acquisitions for $53, and favorable currency for $35. Divestitures resulted in a favorable operating income variance of $18 compared to 2002, which included costs related to the U.S. packaged gas business incurred subsequent to the divestiture in February 2002. Partially offsetting these gains were higher costs of $125, including higher pension and SAP implementation expenses and higher operating costs. Lower electronics specialty material pricing also unfavorably impacted operating income.

Gases Equity Affiliates’ Income

Gases equity affiliates’ income of $68.3 decreased 10%, or $7.4. The decrease was due primarily to the consolidation of San Fu and the tax benefit related to an asset revaluation at an Italian affiliate recorded in 2002, partially offset by $8 in favorable adjustments to customary post-sale liabilities associated with two divested cogeneration plant investments and the impact of currency effects.

2005 Outlook

Gases sales are expected to increase based upon volume growth driven by higher manufacturing activity and the impact of U.S. homecare acquisitions. Increased volumes are expected for Electronics during the year based on estimates of modestly higher wafer production and demand from the flat-panel display market. Hydrogen volumes are expected to continue to grow as regulatory drivers for clean fuels continue and new plants to serve such demand are brought onstream during the year. Based on favorable demographics and other trends in the healthcare industry, the company’s healthcare business is expected to grow organically, as well as through acquisitions. Other industrial end markets are expected to more closely track the general state of the manufacturing economies of the world. The company’s current outlook for U.S. manufacturing growth is 3% to 6% in 2005, and volume growth assumptions for the U.S. liquid bulk gases business are tied to this range. Liquid bulk volumes outside the U.S. are also tied to manufacturing growth. The company expects that manufacturing growth in the European region will be below the U.S., while growth in Asia will exceed the U.S. Pricing in the liquid bulk business globally is expected to remain relatively firm. Pricing in electronics specialty materials is expected to decline in 2005 due to the full year impact of the 2004 price decrease, which resulted from a decline in average selling price and customer conversions from cylinder to bulk supply.

Chemicals

	2004	2003	2002
Sales	**$1,828.9**	$1,591.2	$1,451.7
Operating income	**116.0**	67.1	172.5
Equity affiliates' income	**14.6**	10.8	11.7

Chemicals Sales

	% Change from Prior Year	
	2004	2003
Acquisitions	**1%**	1%
Divestitures	—	(1)%
Currency	**3%**	4%
Natural gas/raw material cost pass through	**3%**	3%
Underlying business		
Volume	**7%**	4%
Price/mix	**1%**	(1)%
Total Chemicals Sales Change	**15%**	10%

2004 vs. 2003

Chemicals sales increased, driven by strong volumes across most businesses. Higher raw material costs not contractually passed through to customers had a negative impact on Chemicals segment results during 2004. The company has implemented price increases across a number of products, including performance polymers and several amines product lines. While the company has begun to pass these cost increases through to customers, the Chemicals segment has not yet reached acceptable profit levels. A long-term supply arrangement to purchase methanol for domestic methylamines production and reduce raw material cost volatility was expected to start in the second half of 2004. However, the start of this supply arrangement has been delayed, and the company now anticipates to begin receiving product late in the first quarter of 2005.

Chemicals Sales

Sales of $1,828.9 increased 15%, or $237.7. Sales increased 3% from favorable currency effects, driven primarily by the weakening of the U.S. dollar against the Euro. Underlying base business sales increased 7% from higher volumes across most of the company's Chemical Intermediates and Performance Materials businesses. Base business Performance Materials volumes increased 7%, with improvements in most businesses and regions, reflecting the improved economic environment. In Chemical Intermediates, base business volumes increased 7%. Higher amines volumes increased from a better herbicide market. Methylamines and polyurethane volumes increased from new contractual volumes. Sales increased 3% from higher raw material costs contractually passed through to customers.

Chemicals Operating Income

Operating income of $116.0 increased $48.9. Operating income in 2003 included an expense of $58.1 for the 2003 global cost reduction plan. Other favorable operating income variances resulted from favorable currency effects for $13 and higher volumes for $52. Operating income declined $31 from higher raw material costs not contractually passed through to customers or recovered via price increases. Additionally, operating income decreased $51 from higher costs, including higher manufacturing costs and higher pension and incentive compensation expense.

Chemicals Equity Affiliates' Income

Chemicals equity affiliates' income was $14.6 compared to $10.8 in 2003. Chemicals equity affiliates' income consists primarily of a global polymer joint venture.

2003 vs. 2002

Chemicals Sales

Sales of $1,591.2 increased 10%, or $139.5. Sales increased 4% from currency effects, driven primarily by the strengthening of the Euro, and 3% from the impact of higher natural gas and raw material costs contractually passed through to customers. Underlying base business sales increased 4%, resulting primarily from improved volumes. In Chemical Intermediates, base business volumes increased 8%, led by polyurethane intermediates (PUI) and higher amines, due to stronger PUI demand, as well as a better market for herbicides. Base business Performance Materials volumes were down 1%, principally due to performance polymers.

Chemicals Operating Income

Operating income of $67.1 decreased $105.4. Operating income included a net expense of $58.1 for global cost reduction plans as compared to 2002, which included a net expense of $2.7 for global cost reduction plans. Operating income declined $55 from higher raw material and energy costs and $27 from other costs, including pension and SAP implementation expense and operating costs. This decline in operating income was partially offset by favorable currency effects of $24 and a favorable volume impact of $7.

Chemicals Equity Affiliates' Income

Chemicals equity affiliates' income decreased $.9. Chemicals equity affiliates' income consists primarily of a global polymers joint venture.

2005 Outlook

In Performance Materials, the company anticipates higher volumes driven by economic growth and the increased sale of new products across the portfolio. In Chemical Intermediates, volumes are expected to expand in 2005 in line with the assumed U.S. manufacturing growth range of 3% to 6% and a normal agricultural cycle. The company intends to complete the divestiture of its European methylamines and derivatives business during the first quarter.

The company faces challenges in its Chemicals business. While some businesses are delivering returns at or above their cost of capital, other businesses are not generating sufficient returns. Higher raw material costs in these businesses are reducing margins. In emulsions, the company has been aggressively raising prices, and margins have started to improve. The company plans to continue to aggressively raise prices. In higher amines, raw material costs increased significantly over the last six months of 2004. The company plans to continue to raise prices here as well. And in methylamines, the startup of a long-term purchased methanol supply arrangement should materially reduce raw material costs going forward. This is expected to significantly improve methylamines margins. For all of 2005, our goal is for returns in the Chemicals segment to exceed its cost of capital.

A long-term supplier of sulfuric acid, used in the production of dinitrotoluene (DNT), emerged from Chapter 11 bankruptcy protection in June 2003. To facilitate the supplier's ability to emerge from bankruptcy and to continue supplying product, the company agreed to participate in the supplier's financing and has continued to provide additional financing. Total loans to the supplier at 30 September 2004 were $55.3. If the supplier does not continue to operate, the sales and profitability of the Chemicals segment could be materially impacted on an annual basis because of the company's inability to supply all of its customers' base requirements. The company does not expect a material loss related to this supplier.

Equipment

	2004	2003	2002
Sales	**$360.7**	$267.8	$275.6
Operating income	**10.8**	4.2	20.7

2004 vs. 2003

Sales of $360.7 increased $92.9, primarily from higher air separation plant sales. Currency effects improved sales by 1%, due primarily to the weakening of the U.S. dollar against the Pound Sterling.

Operating income of $10.8 increased $6.6 from 2003, which included a $2.4 net expense for global cost reduction plan charges. Operating income increased from air separation plant sales and profitability across other product lines.

The sales backlog for the equipment segment at 30 September 2004 was $297 compared to $259 at 30 September 2003. It is expected that approximately $220 of the backlog will be completed during 2005.

2003 vs. 2002

Sales decreased $7.8, while operating income decreased $16.5. The 2003 results included a net expense of $2.4 for global cost reduction plans. Operating income declined due to lower helium container sales, lower LNG activity and lower margins in non-LNG product lines. Sales backlog for the Equipment segment increased to $259 at 30 September 2003, compared to $114.

2005 Outlook

The company's outlook for the Equipment segment is for significantly higher operating income in 2005. This forecast is based on an improved order backlog, having received four orders in 2004 for a total of five LNG main cryogenic heat exchangers.

All Other

All other comprises corporate expenses and income not allocated to the segments, primarily corporate research and development expense.

	2004	2003	2002
Operating loss	**$(47.7)**	$(51.6)	$(32.3)
Equity affiliates' income	**—**	15.1	—

2004 vs. 2003

The operating loss of $47.7 decreased $3.9. No individual items created a material variance in the comparison to the prior year.

Equity affiliates' income of $15.1 in 2003 represented favorable adjustments to customary post-sale liabilities for a divested business not associated with any of the company's current segments.

2003 vs. 2002

Operating loss increased $19.3. This increase reflected expenses associated with the Honeywell litigation in 2003 and favorable adjustments recorded in 2002 related to a divested business and insurance settlements.

Pension Benefits

The company and certain of its subsidiaries sponsor defined benefit plans that cover a substantial portion of its worldwide employees. Pension benefits earned are generally based on years of service and compensation during active employment. Assets under the company's defined benefit plans consist primarily of equity and fixed-income securities. The amounts recognized in the consolidated financial statements for pension benefits are determined on an actuarial basis utilizing numerous assumptions.

For 2004, the fair market value of pension plan assets for the company's defined benefit plans as of their valuation date increased to $1,510.9 from $1,147.5 in 2003. The accumulated benefit obligation for these plans as of their measurement date was $1,961.5 and $1,815.8 for 2004 and 2003, respectively.

Approximately 66% of the total company defined benefit pension plan assets were held in the U.S. plans at the end of 2004, while the assets of the U.K. pension plans represented 27%. The actual allocation of total plan assets at the end of 2004 was 68% in equity securities, 27% in debt securities, 4% in real estate and 1% in other investments. This allocation was in line with the targeted allocations.

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. External actuarial firms analyze the liabilities and demographics of each plan, which helps guide the level of contributions. During 2004 and 2003, the company contributed $277.0 and $61.6, respectively, to the pension plans.

2005 Outlook

Cash contributions are estimated to be approximately $80 in 2005. 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 30 for a projection of future contributions.

Significant Assumptions

The company accounts for pension benefits using the accrual method, consistent with the requirements of SFAS No. 87, "Employers' Accounting for Pensions." Actuarial models are used in calculating the pension expense and liability related to the various plans. These models have an underlying assumption that the employees render service over their service lives on a relatively consistent basis; therefore, the expense of benefits earned should follow a similar pattern.

Several assumptions and statistical variables are used in the models to calculate the expense and liability related to the plans. The company, in consultation with its actuaries, determines assumptions about the discount rate, the expected rate of return on plan assets and the rate of compensation increase. Note 18 to the consolidated financial statements includes disclosure of these rates on a weighted average basis, encompassing both the domestic and international plans. The actuarial models also use assumptions on demographic factors such as retirement, mortality and turnover rates. The company believes the actuarial assumptions are reasonable. However, these actuarial assumptions could vary materially from actual results due to economic events and different rates of retirement, mortality and turnover.

One of the critical assumptions used in the actuarial models is the discount rate. This rate is determined at the annual measurement date for each of the various plans and is therefore subject to change each year. The rate reflects the prevailing market rate for high-quality fixed-income debt instruments with maturities corresponding to the expected duration of the benefit obligations on the measurement date. The rate is used to discount the future cash flows of benefit obligations back to the measurement date. A lower discount rate increases the present value of the benefit obligations and results in higher pension expense. A 50 basis point decrease in the discount rate increases pension expense by approximately $20 per year.

The expected rate of return on plan assets represents the average rate of return to be earned by plan assets over the period that the benefits included in the benefit obligation are to be paid. Lower returns on the plan assets result in higher pension expense. The company uses historic market return trends combined with current market conditions for each asset category to develop this rate of return. The weighted average actual compound rate of return earned on plan assets for the last ten years was 9.5%. For the last 20 years the actual rate was 11.1%. A 50 basis point decrease in the estimated rate of return on plan assets increases pension expense by approximately $7 per year.

The expected rate of compensation increase is another key assumption. The company determines this rate based on review of the underlying long-term salary increase trend characteristic of labor markets, historical experience, as well as comparison to peer companies. A 50 basis point increase in the expected rate of compensation increases pension expense by approximately $15 per year.

Pension Expense

Pension expense in 2004 was $130.1 compared to $96.4 in 2003. Expense in 2004 included $12.5 for special termination, settlement and curtailment charges. Expense in 2003 included a special termination charge of $12.7 under the 2003 global cost reduction plan. In 2002, pension expense was $55.7, including $11.4 for special termination, settlement and curtailment charges.

The year-to-year variances in pension expense were principally attributable to changes in the discount rate, lower asset returns, and a reduction in the expected rate of return on plan assets. The global weighted average discount rates used to compute pension expense were 5.8%, 6.5% and 7.1% for 2004, 2003 and 2002, respectively. Pension expense includes the expected return on plan assets, as opposed to the actual returns. The expected return on plan assets is determined by applying the expected long-term rate of return to the market-related value of plan assets. The market-related value is a calculated value that amortizes the difference between the actual and expected returns on equity securities ratably over a five-year period. The amortization of these differences reduced the market-related value of assets for 2004 and resulted in higher pension expense. Also contributing to higher expense in 2004 was a decline in the weighted average expected return on plan assets. The return, used in the determination of expense, was 8.4% for 2004 compared to 9.1% for 2003.

2005 Outlook

Pension expense is estimated to be $112 for 2005. This represents a decrease of $18.1 from 2004. Pension expense in 2004 included a charge of $12.5 for special termination benefits, settlements and curtailments. Estimated pension expense in 2005 was computed based on a global weighted average long-term rate of return on plan assets assumption of 8.8%, which was 40 basis points higher than that used in 2004.

Additional Minimum Liability

The additional minimum liability is equal to the accumulated benefit obligation less the fair value of pension plan assets in excess of the accrued pension cost. Comprehensive income within shareholders' equity increased $59.4 (after-tax) due to a reduction of the additional minimum liability. The reduction in the additional minimum liability resulted principally from improved plan asset positions. A $147.1 after-tax charge was recorded to comprehensive income within shareholders' equity due to the recognition of an additional minimum liability in 2003. The 2003 increase in the additional minimum liability resulted principally from the decline in the discount rate.

Recognition of Actuarial Gains and Losses

At the end of 2004 and 2003, unrecognized actuarial losses for the defined benefit plans were $815.1 and $866.6, respectively. These losses principally reflect a decline in the discount rate and differences between the expected and actual return on plan assets. SFAS No. 87 requires the amortization of unrecognized actuarial gains/losses in excess of certain thresholds into pension expense over the average remaining service lives of the employees, to the extent they are not offset by future gains/losses. In 2005, pension expense will include approximately $32 of amortization relating to the 2004 unrecognized actuarial loss. Future increases in the discount rate and higher than expected returns on plan assets would reduce the unrecognized actuarial losses and resulting amortization in years beyond 2005.

Plan Modifications

On 5 October 2004, the company announced changes to the U.S. Retirement Savings and Stock Ownership Plan (renamed the "Retirement Savings Plan") to provide a greater portion of retirement benefits in a defined contribution program. Effective 1 January 2005, this new program provides a company core contribution based on service as well as an enhanced company matching contribution to the Retirement Savings Plan. All U.S. salaried employees hired on or after 1 November 2004 will earn benefits only under the defined contribution program starting 1 January 2005. Eligible U.S. salaried employees as of 31 October 2004 were given the opportunity to make a one-time election to choose the traditional defined benefit plan or the new defined contribution plan for future service starting 1 January 2005. All benefits earned through 31 December 2004, including those applicable to current employees electing the defined contribution program, will be determined under the traditional pension plan formula. Additionally, the company modified the early retirement provision related to future service of the tradi-

tional pension plan. In the near term, the retirement program changes are not anticipated to have a material impact on retirement program cost levels or funding. However, the new defined contribution plan is expected to reduce long-term expense and contribution volatility.

The U.K. defined benefit plan is closed to all new hires effective 1 January 2005. Eligible U.K. employees hired on or after 1 January 2005 will receive retirement benefits exclusively under a new defined contribution plan.

Stock-Based Compensation

The company applies Accounting Principles Board (APB) Opinion No. 25, “Accounting for Stock Issued to Employees,” in accounting for its stock option plans. Accordingly, no compensation expense has been recognized. If the company recognized compensation expense in accordance with SFAS No. 123, “Accounting for Stock-Based Compensation,” net income would have been reduced by $30.6, $37.9 and $40.9 in years 2004, 2003 and 2002, respectively. See Note 1 and Note 15 to the consolidated financial statements for further information.

In March 2004, the FASB issued an exposure draft on share-based compensation which would require companies to expense the fair value of employee stock options starting in 2005. The company intends to continue applying its current accounting methodology until a final accounting standard for stock options is issued.

Environmental Matters

The company is subject to various environmental laws and regulations in the United States of America and foreign countries where it has operations. Compliance with these laws and regulations results in higher capital expenditures and costs. Additionally, 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 policies for environmental expenditures are discussed in Note 1 to the consolidated financial statements.

The amounts charged to earnings on an after-tax basis related to environmental matters totaled $31.8, $29.6 and $24.4 for 2004, 2003 and 2002, respectively. These amounts represent an estimate of expenses for compliance with environmental laws, as well as remedial activities, and costs incurred to meet internal company standards. Such costs are estimated to be $32 and $33 in 2005 and 2006, respectively.

Although precise amounts are difficult to define, the company estimates that in 2004 it spent approximately $18 on capital projects to control pollution versus $16 in 2003. Capital expenditures to control pollution in future years are estimated at $15 in 2005 and $17 in 2006.

It is the company’s policy to accrue environmental investigatory, external legal costs and noncapital 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 $9 to a reasonably possible upper exposure of $19. The balance sheet at 30 September 2004 and 2003 included an accrual of $14.3 and $15.3, respectively.

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 materially adverse effect on its financial condition or results of operations in any one year.

Liquidity and Capital Resources

The company maintained a solid financial position throughout 2004. Capital requirements were satisfied with cash from operations. The company is currently rated A/A2 (long-term) and A-1/P-1 (commercial paper), respectively, by Standard & Poor’s and Moody’s.

Cash Flows

The company’s cash flows from operating, investing and financing activities, as reflected in the Consolidated Statements of Cash Flows, are summarized in the following table:

	2004	2003	2002
Cash provided by (used for):			
Operating activities	**$1,085.9**	$ 1,036.0	$1,063.9
Investing activities	**(762.7)**	(1,046.6)	(493.6)
Financing activities	**(256.8)**	(182.7)	(385.0)
Effect of exchange rate changes on cash	**3.7**	15.8	2.2
Increase (decrease) in cash and cash items	$ **70.1**	$ (177.5)	$ 187.5

Operating Activities

2004 vs. 2003

Net cash provided by operating activities increased $49.9, or 4.8%. Before working capital changes, the contribution of net income adjusted for noncash items to cash provided by operating activities increased $209.4. Net income improved by $206.8. The primary noncash adjustment favorably contributing to the change in cash provided by operating activities was depreciation and amortization expense. Depreciation and amortization expense increased $60.1, principally due to acquisitions and currency effects from a weaker U.S. dollar. These favorable impacts were partially offset by a decrease in the impairment of long-lived assets due to the 2003 global cost reduction plan and lower dividend payments from equity affiliates. The increase in trade receivables of $165.0 was primarily due to increased sales volumes.

2003 vs. 2002

Net cash provided by operating activities decreased $27.9, or 3%. Before working capital changes, the contribution of net income adjusted for noncash items to cash provided by operating activities was up $51.5. Net income decreased by $128.1. Noncash adjustments favorably contributing to the change in cash provided by operating activities included increased depreciation and amortization expense, the larger impairment of long-lived assets in 2003 and a reduced gain on the sale of assets and investments. The increase in depreciation and amortization expense of $63.7 was due principally to currency effects from a weaker U.S. dollar and acquisitions. The expenses for the impairment of long-lived assets increased $88.0, principally due to the 2003 global cost reduction plan. The gain on the sale of assets and investments was higher in 2002 by $58.1, principally due to the gain on sale of the U.S. packaged gas business in 2002. Additionally, cash provided by operating activities in 2003 benefited from higher dividend payments from equity affiliates. These favorable impacts were more than offset by deferred income taxes and an increased use of cash for working capital in 2003. The $38.4 unfavorable impact from deferred income taxes resulted primarily from higher foreign tax benefits. The increase in accounts receivable was primarily due to the impact of natural gas cost contractually passed through to customers. Inventories increased as a result of higher energy and raw material costs. Payables and accrued liabilities increased, primarily due to expenses for the 2003 global cost reduction plan.

Investing Activities

2004 vs. 2003

In 2004, cash used for investing activities decreased by $283.9, due to lower acquisitions, partially offset by higher additions to plant and equipment and lower proceeds from the sale of assets and investments. Acquisitions in 2004, totaling $84.6, principally included six small U.S. homecare businesses. Acquisitions in 2003, totaling $529.6, included Ashland's Electronic Chemicals business for $293.2 in August 2003, American Homecare Supply (AHS) for $165.8 in October 2002, additional small homecare businesses, and Sanwa. Proceeds from the sale of assets and investments declined $55.9. The company sold its Canadian packaged gas business in 2003 for proceeds of $41.2.

2003 vs. 2002

In 2003, cash used for investing activities increased by $553.0, due principally to acquisitions and lower proceeds from the sale of assets and investments. Acquisitions in 2003 totaled $529.6. Acquisitions in 2002, totaling $114.8, included the purchase of an additional 22% of the outstanding shares of San Fu, raising the company's ownership interest to 70%. Proceeds from the sale of assets and investments declined $190.8 from the prior year. In 2002, the company sold the majority of its U.S. packaged gas business for proceeds of $254.5.

Capital Expenditures

Primarily as a result of lower acquisitions, capital expenditures in 2004 totaled $815.5, compared to $1,170.9 in 2003. As in 2003, additions to plant and equipment in 2004 were largely in support of the worldwide Gases business. Major additions to plant and equipment included spending on EPI North America hydrogen tonnage plants and Asian facilities within the Gases electronics and liquid bulk businesses. Additions to plant and equipment also included support capital of a routine ongoing nature, including expenditures for distribution equipment and facility improvements.

Capital expenditures are detailed in the following table:

	2004	2003	2002
Additions to plant and equipment	**$705.5**	$ 612.9	$627.6
Acquisitions, less cash acquired	**84.6**	529.6	114.8
Investments in and advances to unconsolidated affiliates	**18.8**	6.1	39.2
Long-term debt assumed in acquisitions	**—**	5.2	20.1
Capital leases	**6.6**	17.1	3.9
	$815.5	$1,170.9	$805.6

2005 Outlook

Capital expenditures for new plant and equipment in 2005 are expected to be between $850 and $900. The increase in expenditures in 2005 is driven primarily by the growing hydrogen market where the company has the opportunity to expand its franchise positions. In addition, the company intends to continue to evaluate acquisition opportunities and investments in affiliated entities. The company expects to spend between $75 and $100 on homecare acquisitions. It is anticipated that capital expenditures will be funded with cash from operations.

Financing Activities
2004 vs. 2003

Cash used for financing activities increased $74.1 in 2004. The increase is due to higher debt repayments of $236.8 and dividends to shareholders of $30.3, partially offset by higher long-term debt proceeds of $123.5 and an increase in cash proceeds from stock option exercises of $69.5. Long-term borrowings consisted mainly of a $125.0 seven-year, fixed-rate borrowing with a coupon rate of 4.125% and an additional $98.7 of Eurobonds as discussed under Financing and Capital Structure below.

2003 vs. 2002

Cash used for financing activities declined $202.3 in 2003, primarily due to a $37.6 increase in short-term borrowings in 2003 versus a $170.9 reduction in 2002. Higher payments on long-term debt in 2003 were partially funded by increased long-term debt proceeds.

Financing and Capital Structure

Capital needs in 2004 were satisfied with cash from operations. At the end of 2004, total debt outstanding was $2.4 billion compared to $2.5 billion, as long- and short-term debt repayments exceeded new debt proceeds by $183.9. The impact of this debt repayment was partially offset by the impact of the weaker U.S. dollar on the translation of foreign currency debt. Total debt at 30 September 2004 and 2003 expressed as a percentage of the sum of total debt, shareholders' equity and minority interest was 34.2% and 38.7%, respectively.

Long-term debt financings in 2004 totaled $286.3. This was composed primarily of fixed- and floating-rate U.S. dollar borrowings and fixed-rate Euro borrowings with terms ranging from seven to thirty-five years.

There was no commercial paper outstanding at 30 September 2004. Substantial credit facilities are maintained to provide backup funding for commercial paper and to ensure availability of adequate sources of liquidity. During the first quarter of 2004, the company replaced its $600 committed credit facility with a new $700 multicurrency committed revolving credit facility, maturing in December 2008. No borrowings were outstanding under these commitments at the end of 2004.

Additional commitments of $49.6 are maintained by the company's foreign subsidiaries, of which $8.7 was borrowed and outstanding at 30 September 2004.

On 9 January 2004, the company filed a Form S-3 Registration Statement with the U.S. Securities and Exchange Commission, which became effective on 26 January 2004. The shelf registration enables the company to issue up to $ 1 billion of debt and equity securities. The primary use is for general corporate purposes.

On 8 April 2004, the company exchanged Euro 209.3 ($252.9) of 6% Eurobonds maturing on 30 March 2005 for an issuance of Euro 218.3 ($263.9) of 4.25% Eurobonds maturing 10 April 2012. An additional Euro 81.7 ($98.7) of 4.25% Eurobonds maturing 10 April 2012 were issued for cash, which funded the repayment of outstanding commercial paper.

Dividends

The Board of Directors in May 2004 increased the quarterly cash dividend 26%, from 23 cents per share to 29 cents per share. Dividends are declared by the Board of Directors and are usually paid during the sixth week after the close of the fiscal quarter.

Contractual Obligations

The company is obligated to make future payments under various contracts such as debt agreements, lease agreements, unconditional purchase obligations and other long-term obligations. The following table summarizes these contractual obligations of the company as of 30 September 2004.

		Payments Due By Period					
	Total	2005	2006	2007	2008	2009	Thereafter
Long-term debt obligations							
Debt maturities	**$2,310**	$ 564	$176	$514	$115	$ 20	$ 921
Contractual interest	**522**	98	78	66	40	37	203
Capital leases	**50**	28	7	4	2	1	8
Operating leases	**229**	56	45	23	17	13	75
Pension obligations	**454**	80	60	150	130	34	—
Unconditional purchase obligations	**1,023**	323	64	60	59	58	459
Total Contractual Obligations	**$4,588**	$1,149	$430	$817	$363	$163	$1,666

Long-Term Debt Obligations

The long-term debt obligations include the maturity payments of long-term debt, including current portion, and the related contractual interest obligations. Refer to Note 12 to the consolidated financial statements for additional information on long-term debt.

Contractual interest is the interest the company is contracted to pay on the long-term debt obligations without taking into account the interest impact of interest rate swaps related to any of this debt, which at current interest rates would reduce contractual interest. The company had $487 of long-term debt subject to variable interest rates at 30 September 2004, excluding fixed-rate debt that has been swapped to variable-rate debt. The rate assumed for the variable interest component of the contractual interest obligation was the rate in effect at 30 September 2004. Variable interest rates are primarily determined by inter-bank offer rates and by U.S. short-term tax-exempt interest rates.

Leases

Refer to Note 13 to the consolidated financial statements for additional information on capital and operating leases.

Pension Obligations

The company and certain of its subsidiaries sponsor defined benefit plans that cover a substantial portion of its worldwide employees. 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 amounts in the table represent the current estimated cash payments to be made by the company in the periods indicated, which are significantly higher than the minimum required contributions.

The total accrued liability for pension benefits is impacted by interest rates, plan demographics, actual return on plan assets, continuation or modification of benefits, and other factors. Such factors can significantly impact the amount of the liability and related contributions.

Unconditional Purchase Obligations

Most of the company's long-term unconditional purchase obligations relate to feedstock supply for numerous HyCO (hydrogen, carbon monoxide and syngas) facilities. The price of feedstock supply is principally related to the price of natural gas. However, long-term take-or-pay sales contracts to HyCO customers are generally matched to the term of the feedstock supply obligations and provide recovery of price increases in the feedstock supply. Due to the matching of most feedstock supply obligations to customer sales contracts, the company does not believe these purchase obligations would have a material effect on its financial condition or results of operations.

Natural gas supply purchase obligations that are not feedstock supply contracts to HyCO facilities are principally short-term commitments at market prices.

The above unconditional purchase obligations also include the fixed demand charge for electric power under numerous supply contracts. A fixed demand charge is generally included in electric power supply agreement pricing and is generally reset at least annually; therefore, the fixed obligation is principally included in 2005. A portion of the power supply requirement relates to long-term take-or-pay sales contracts to industrial gas customers, which provide for recovery of power costs.

Purchase commitments to spend approximately $208 for additional plant and equipment are included in the unconditional purchase obligations. Total capital expenditures for plant and equipment in 2005 are expected to be between $850 and $900.

The company also purchases materials, energy, capital equipment, supplies and services as part of the ordinary course of business under arrangements which are not unconditional purchase obligations. The majority of such purchases are for raw materials and energy, which are obtained under requirements-type contracts at market prices. In total, purchases by the company exceed $3 billion annually, including the unconditional purchase obligations in the table.

Deferred Income Tax Liability

Noncurrent deferred income tax liabilities as of 30 September 2004 were $788.0. Refer to Note 17 to the consolidated financial statements. Deferred tax liabilities are calculated based on temporary differences between the financial reporting and tax bases of assets and liabilities using enacted tax rates. This amount is not included in the Contractual Obligations table because this presentation would not be meaningful. These liabilities do not have any connection with the amount of cash taxes to be paid in any future periods and do not relate to liquidity needs.

Off-Balance Sheet Arrangements

The company has entered into certain guarantee agreements and an arrangement involving the sale and leaseback of U.S. cryogenic vessel equipment. The company's guarantee agreements are discussed in Note 19 to the consolidated financial statements. Information on the sale and leaseback of U.S. cryogenic vessel equipment is also contained in Note 13 to the consolidated financial statements. The company has not entered into any agreements under which it has an obligation arising out of a variable interest entity. The company does not have any derivative instruments indexed to its own stock. The company's off-balance sheet arrangements are not reasonably likely to have a material impact on financial condition, changes in financial condition, results of operations, or liquidity.

Related Party Transactions

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

Market Risks and Sensitivity Analysis

The company's earnings, cash flows and financial position are exposed to market risks relating to fluctuations in interest rates and foreign currency exchange rates. It is the policy of the company to minimize its cash flow exposure to adverse changes in currency and exchange rates and to manage the financial risks inherent in funding with debt capital.

The company addresses these financial exposures through a controlled program of risk management that includes the use of derivative financial instruments. Counterparties to all derivative contracts are major financial institutions, thereby minimizing the risk of credit loss. All instruments are entered into for other than trading purposes. The utilization of these instruments is described more fully in Note 6 to the consolidated financial statements. The major accounting policies for these instruments are described in Note 1 to the consolidated financial statements.

The company's derivative and other financial instruments consist of long-term debt (including current portion), interest rate swaps, cross currency interest rate swaps, foreign exchange-forward contracts and foreign exchange-option contracts. The net market value of these financial instruments combined is referred to below as the net financial instrument position. The net financial instrument position does not include other investments of $79.3 at 30 September 2004 and $63.4 at 30 September 2003 as disclosed in Note 6 to the consolidated financial statements. These amounts primarily represent an investment in a publicly traded foreign company accounted for by the cost method. The company assessed the materiality of the market risk exposure on these other investments and determined this exposure to be immaterial.

At 30 September 2004 and 2003, the net financial instrument position was a liability of $2,531.4 and $2,542.1, respectively. The decrease in the net financial instrument position was due primarily to a reduction in long-term debt and the impact of higher U.S. dollar interest rates on the market value of fixed-rate debt, largely offset by the impact of a weaker U.S. dollar on the translation of foreign currency debt and the market value of foreign exchange-forward contracts.

The analysis below presents the sensitivity of the market value of the company's financial instruments to selected changes in market rates and prices. The range of changes chosen reflects the company's view of changes which are reasonably possible over a one-year period. Market values are the present value of projected future cash flows based on the market rates and prices chosen. The market values for interest rate risk and foreign currency risk are calculated by the company using a third-party software model that utilizes standard pricing models to determine the present value of the instruments based on market conditions (interest rates, spot and forward exchange rates, and implied volatilities) as of the valuation date.

Interest Rate Risk

The company's debt portfolio, including swap agreements, as of 30 September 2004, primarily comprised debt denominated in Euros (49%) and U.S. dollars (29%). This debt portfolio is composed of 59% fixed-rate debt and 41% variable-rate debt. Changes in interest rates have different impacts on the fixed- and variable-rate portions of the company's debt portfolio. A change in interest rates on the fixed portion of the debt portfolio impacts the net financial instrument position but has no impact on interest incurred or cash flows. A change in interest rates on the variable portion of the debt portfolio impacts the interest incurred and cash flows but does not impact the net financial instrument position.

The sensitivity analysis related to the fixed portion of the company's debt portfolio assumes an instantaneous 100 basis point move in interest rates from the levels at 30 September 2004 and 2003, with all other variables (including foreign exchange rates) held constant. A 100 basis point increase in market interest rates would result in a decrease of $40 and $41 in the net liability position of financial instruments at 30 September 2004 and 2003, respectively. A 100 basis point decrease in market interest rates would result in an increase of $43 and $44 in the net liability position of financial instruments at 30 September 2004 and 2003, respectively.

Based on the variable-rate debt included in the company's debt portfolio, including the interest rate swap agreements, as of 30 September 2004 and 2003, a 100 basis point increase in interest rates would result in an additional $10 and $9 in interest incurred per year at 30 September 2004 and 2003, respectively. A 100 basis point decline would lower interest incurred by $10 and $9 per year at 30 September 2004 and 2003, respectively.

Foreign Currency Exchange Rate Risk

The sensitivity analysis assumes an instantaneous 10% change in the foreign currency exchange rates from their levels at 30 September 2004 and 2003, with all other variables (including interest rates) held constant. A 10% strengthening of the functional currency of an entity versus all other currencies would result in a decrease of $199 and $223 in the net liability position of financial instruments at 30 September 2004 and 2003, respectively. A 10% weakening of the functional currency of an entity versus all other currencies would result in an increase of $197 and $217 in the net liability position of financial instruments at 30 September 2004 and 2003, respectively.

The primary currencies for which the company has exchange rate exposure are the U.S. dollar versus the Euro, the U.S. dollar versus the U.K. Pound Sterling, the U.S. dollar versus the Canadian dollar and the Euro versus the U.K. Pound Sterling. Foreign currency debt, cross currency interest rate swaps and foreign exchange-forward contracts are used in countries where the company does business, thereby reducing its net asset exposure. Foreign exchange-forward contracts also are used to hedge the company's firm and highly anticipated foreign currency cash flows, along with foreign exchange-option contracts. Thus, there is either an asset or cash flow exposure related to all of the financial instruments in the above sensitivity analysis for which the impact of a movement in exchange rates would be in the opposite direction and materially equal (or more favorable in the case of purchased foreign exchange-option contracts) to the impact on the instruments in the analysis.

Inflation

The financial statements are presented in accordance with accounting principles generally accepted in the United States of America and do not fully reflect the impact of prior years' inflation. While the U.S. inflation rate has been modest for several years, the company operates in many countries with both inflation and currency issues. The ability to pass on inflationary cost increases is an uncertainty due to general economic conditions and competitive situations. It is estimated that the cost of replacing the company's plant and equipment today is greater than its historical cost. Accordingly, depreciation expense would be greater if the expense were stated on a current cost basis.

Critical Accounting Policies and Estimates

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

Note 1 to the consolidated financial statements describes the company's major accounting policies. Judgments and estimates of uncertainties are required in applying the company's accounting policies in many areas. The following are areas requiring significant judgments and estimates: depreciable lives of plant and equipment, cash flow and valuation assumptions in performing impairment tests of long-lived assets and estimated costs to be incurred for environmental liabilities, income taxes and pension benefits.

Application of the critical accounting policies discussed below requires management's significant judgments, often as the result of the need to make estimates of matters that are inherently uncertain. If actual results were to differ materially from the estimates made, the reported results could be materially affected. However, the company is not currently aware of any reasonably likely events or circumstances that would result in materially different results.

The company's senior management has reviewed these critical accounting policies and estimates and the Management's Discussion and Analysis regarding them with its audit committee.

Information concerning the company's implementation and impact of new accounting standards issued by the Financial Accounting Standards Board (FASB) is discussed in Note 2. Otherwise, the company did not adopt an accounting policy in the past three years that had a material impact on the company's financial condition, change in financial condition or results of operations.

Depreciable Lives of Plant and Equipment

Plant and equipment is recorded at cost and depreciated using the straight-line method, which deducts equal amounts of cost of each asset from earnings every year over its estimated economic useful life. Net plant and equipment at 30 September 2004 totaled $5,702.2, representing 57% of total assets. Depreciation expense during 2004 totaled $696.0, representing 11% of total costs and expenses. Given the significance of plant and equipment and associated depreciation to the company's financial statements, the determination of an asset's economic useful life is considered to be a critical accounting estimate. The estimate is critical for the company's Gases and Chemicals segments, both capital-intensive businesses in which the company owns and operates plant and equipment.

Economic useful life is the duration of time the asset is expected to be productively employed by the company, which may be less than its physical life. Management's assumptions on the following factors, among others, affect the determination of estimated economic useful life: wear and tear, obsolescence, technical standards, contract life, changes in market demand and raw material availability. The company makes estimates and assumptions regarding its competitive position in various end markets and geographic locations.

The estimated economic useful life of an asset is monitored to determine its appropriateness, especially in light of changed business circumstances. For example, changes in technological advances, changes in the estimated future demand for products, or excessive wear and tear may result in a shorter estimated useful life than originally anticipated. In these cases, the company would depreciate the remaining net book value over the new estimated remaining life, thereby increasing depreciation expense per year on a prospective basis. Likewise, if the estimated useful life is increased, the adjustment to the useful life decreases depreciation expense per year on a prospective basis. Over the past three years, changes in economic useful life assumptions have not had a material impact on the company's reported results.

The company has numerous long-term customer supply contracts, particularly in the gases on-site business. These contracts principally have initial contract terms of 15 to 20 years. Depreciable lives of the production assets related to long-term contracts are matched to the contract lives. Extensions to the contract term of supply frequently occur prior to the expiration of the initial term. As contract terms are extended, the depreciable life of the remaining net book value of the production assets is adjusted to match the new contract term.

The depreciable lives of merchant gas production facilities are principally 15 years. Major chemical production facilities are also generally depreciated over 15 years. The terms of customer contracts associated with products produced at these types of facilities typically have a much shorter term. Management has determined a 15-year life to be appropriate based on historical experience combined with its judgment on future assumptions such as technological advances, potential for obsolescence, competitors' actions, etc. Management monitors its assumptions and may potentially need to adjust depreciable life as circumstances change. A change in the depreciable life for all merchant chemical and gas facilities by one year would impact annual depreciation expense by approximately $20.

Impairment of Long-Lived Assets

Plant and Equipment

Net plant and equipment at 30 September 2004 totaled $5,702.2. Plant and equipment held for use is grouped for impairment testing at the lowest level for which there are identifiable cash flows. Impairment testing of the asset group occurs whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. The company assesses recoverability by comparing the carrying amount of the asset group to the estimated undiscounted future cash flows expected to be generated by the assets. If an asset group is considered impaired, the impairment loss to be recognized would be measured as the amount by which the asset group's carrying amount exceeds its fair value. Assets to be disposed of by sale are reported at the lower of carrying amount or fair value less cost to sell.

The estimate of plant and equipment fair value is based on estimated discounted future cash flows expected to be generated by the asset group. The assumptions underlying cash flow projections represent management's best estimates at the time of the impairment review. Factors that management must estimate include: industry and market conditions, sales volume and prices, costs to produce, inflation, etc. Changes in key assumptions or actual conditions which differ from estimates could result in an impairment charge. The company uses reasonable and supportable assumptions when performing impairment reviews and cannot predict the occurrence of future events and circumstances that could result in impairment charges. Over the past three years, there have been no impairments of asset groups held for use. As part of the actions taken in the company's global cost reduction plans, recognized impairments of assets to be sold or abandoned were $90.1 and $3.7 in 2003 and 2002, respectively. Refer to the Global Cost Reduction Plans discussion on page 19.

Goodwill

The purchase method of accounting for business combinations requires the company to make use of estimates and judgments to allocate the purchase price paid for acquisitions to the fair value of the net tangible and identifiable intangible assets. Goodwill represents the excess of the aggregate purchase price over the fair value of net assets of an acquired entity. Goodwill, including goodwill associated with equity affiliates, was $897.4 as of 30 September 2004. The majority of the company's goodwill is assigned to reporting units within the Gases segment. Disclosures related to goodwill are included in Note 10 to the consolidated financial statements.

The company performs an impairment test annually in the fourth quarter of the fiscal year. In addition, goodwill would be tested more frequently if changes in circumstances or the occurrence of events indicated potential impairment exists. The impairment test requires the company to compare the fair value of business reporting units to carrying value including assigned goodwill. The results of the impairment tests have indicated fair value amounts exceeded carrying amounts by a substantial margin.

The company primarily uses the present value of future cash flows to determine fair value. The company's valuation model assumes a five-year growth period for the business and an estimated exit trading multiple. Management judgment is required in the estimation of future operating results and to determine the appropriate exit multiple. The exit multiple is determined from comparable industry transactions. Future operating results and exit multiples could reasonably differ from the estimates. However, given the substantial margin by which fair value exceeded carrying amounts in the latest goodwill impairment review, the company does not anticipate a material impact on the financial statements from differences in these assumptions.

Equity Investments

Investments in and advances to equity affiliates totaled $629.8 at 30 September 2004. The majority of the company's investments are nonpublicly traded ventures with other companies in the industrial gas or chemicals business. Summarized financial information of equity affiliates is included in Note 8 to the consolidated financial statements. Equity investments are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of the investment may not be recoverable.

In the event that a decline in fair value of an investment occurs, and the decline in value is considered to be other than temporary, an impairment loss would be recognized. Management's estimate of fair value of an investment is based on estimated discounted future cash flows expected to

be generated by the investee. Changes in key assumptions about the financial condition of an investee or actual conditions which differ from estimates could result in an impairment charge. Over the past three years, there have been no impairment charges associated with an equity investment.

Environmental Liabilities

Accruals for environmental loss contingencies are recorded when it is probable that a liability has been incurred and the amount can reasonably be estimated. The company estimates the exposure for environmental contingencies to range from $9 to a reasonably possible upper exposure of $19. The balance sheet at 30 September 2004 included an accrual of $14.3, primarily as part of other noncurrent liabilities. Management views the measurement of environmental loss contingency accruals as a critical accounting estimate because of the considerable uncertainty surrounding estimation and the need to forecast into the distant future.

In the normal course of business, the company is involved in legal proceedings under the federal Superfund law, similar state environmental laws and RCRA relating to the designation of certain sites for investigation or remediation. Presently, there are approximately 40 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. In addition, the company is also involved in cleanup activities at certain of its manufacturing sites. Sites for which the company monitors environmental exposure are related to operations within the Gases and Chemicals segments as well as discontinued businesses.

Measurement of environmental accruals is based on the evaluation of currently available information with respect to each individual site and considers factors such as existing technology, presently enacted laws and regulations, and prior experience in remediation of contaminated sites. An environmental accrual related to cleanup of a contaminated site might include, for example, a provision for one or more of the following types of costs: site investigation and testing costs, cleanup costs, costs related to soil and water contamination resulting from tank ruptures, postremediation monitoring costs and outside legal fees. Environmental accruals include costs related to other potentially responsible parties to the extent that the company has reason to believe such parties will not fully pay their proportionate share. The accruals also do not take into account any claims for recoveries from insurance and are not discounted.

As assessments and remediation progress at individual sites, the amount of the projected cost is reviewed periodically, and the accrual is adjusted to reflect additional technical and legal information that becomes available. Management has a well-established process in place to identify and monitor the company’s environmental exposures. An environmental accrual analysis is prepared and maintained that lists all environmental loss contingencies, even where an accrual has not been established. This analysis assists in monitoring the company’s overall environmental exposure and serves as a tool to facilitate ongoing communication among the company’s technical experts, environmental managers, environmental lawyers and financial management to ensure that required accruals are recorded and potential exposures disclosed.

Actual costs to be incurred at identified sites in future periods may vary from the estimates, given the inherent uncertainties in evaluating environmental exposures. Using reasonably possible alternative assumptions of the exposure level could result in an increase to the environmental accrual. Due to the inherent uncertainties related to environmental exposures, a significant increase to the reasonably possible upper exposure level could occur if a new site was designated, the scope of remediation was increased or a significant increase in the company’s proportionate share occurred.

Income Taxes

The company accounts for income taxes under the liability method. Under this method, deferred tax liabilities and assets are recognized for the tax effects of temporary differences between the financial reporting and tax bases of liabilities and assets measured using the enacted tax rate. At 30 September 2004, accrued income taxes and deferred tax liabilities amounted to $105.9 and $788.0, respectively. Income tax expense was $226.6 for the year ended 30 September 2004. Significant management judgment is required in determining income tax expense and the related balance sheet amounts. Judgments are required concerning the ultimate outcome of tax contingencies and the realization of deferred tax assets.

Actual income taxes paid may vary from estimates depending upon changes in income tax laws, actual results of operations, and the final audit of tax returns by taxing authorities. Tax assessments may arise several years after tax returns have been filed. The company believes that its recorded tax liabilities adequately provide for the probable outcome of these assessments.

Deferred tax assets are recorded for operating losses and tax credit carryforwards. However, when there are not sufficient sources of future taxable income to realize the benefit of the operating loss or tax credit carryforwards, these deferred tax assets are reduced by a valuation allowance. A valuation allowance is recognized if, based on the weight of available evidence, it is considered more likely than not that some portion or all of the deferred tax asset will not be realized. The factors used to assess the likelihood of realization include forecasted future taxable income and available tax planning strategies that could be implemented to realize or renew net deferred tax assets in order to avoid the potential loss of future tax benefits. The effect of a change in the valuation allowance is reported in the current period tax expense.

A 1% point increase in the company's effective tax rate would have decreased net income by approximately $8.

Pension Benefits

The company sponsors defined benefit pension plans in various forms for employees who meet eligibility requirements. Several assumptions and statistical variables are used in actuarial models to calculate the pension expense and liability related to the various plans. Assumptions about the discount rate, the expected rate of return on plan assets and the future rate of compensation increases are determined by the company. The actuarial models also use assumptions on demographic factors such as retirement, mortality and turnover. Management considers the accounting for pension benefits critical because of the significance and number of assumptions used. Depending on the assumptions selected, pension expense could vary significantly and could have a material effect on reported earnings. The assumptions used can also materially affect the measurement of benefit obligations. For a detailed discussion of the company's pension benefits, see Pension Benefits above and Note 18 to the consolidated financial statements.

New Accounting Standards

In December 2003, the FASB published a revision to Interpretation No. 46, "Consolidation of Variable Interest Entities," to clarify some of the provisions of Interpretation No. 46. In December 2003, the FASB also issued a revised Statement of Financial Accounting Standard (SFAS) No. 132, "Employers' Disclosures about Pensions and Other Postretirement Benefits," which added disclosure requirements for defined benefit plans. In May 2004, the FASB issued a FASB Staff Position (FSP) No. FAS 106-2, "Accounting and Disclosure Requirements Related to the Medicare Prescription Drug, Improvement and Modernization Act of 2003 (Act)." This FSP provides guidance on the accounting for the effects of the Act for employers that sponsor postretirement health care plans that provide prescription drug benefits. See Note 2 to the consolidated financial statements for information concerning the company's implementation and impact of these new accounting standards.

Forward-Looking Statements

The forward-looking statements contained in this document are based on current expectations at the time the document was originally prepared regarding important risk factors. Management does not anticipate publicly updating any of its expectations except as part of the quarterly earnings announcement process. The forward-looking statements contained in this document are based on current expectations regarding important risk factors.

Actual results may differ materially from those forward-looking statements expressed. In addition to important risk factors and uncertainties referred to in the Management's Discussion and Analysis, factors that might cause forward-looking statements to differ materially from actual results include, among other things, overall economic and business conditions different than those currently anticipated and demand for the company's goods and services; competitive factors in the industries in which it competes; interruption in ordinary sources of supply; the ability to recover unanticipated increased energy and raw material costs from customers; uninsured litigation judgments or settlements; spikes in the pricing of natural gas; changes in government regulations; consequences of acts of war or terrorism impacting the United States and other markets; charges related to currently unplanned portfolio management and cost reduction actions; the success of implementing cost reduction programs; the timing, impact, and other uncertainties of future acquisitions or divestitures; significant fluctuations in interest rates and foreign currencies from that currently anticipated; the impact of tax and other legislation and regulations in jurisdictions in which the company and its affiliates operate; and the timing and rate at which tax credits can be utilized.

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors of Air Products and Chemicals, Inc.:

We have audited the accompanying consolidated balance sheets of Air Products and Chemicals, Inc. (a Delaware corporation) and subsidiaries as of 30 September 2004 and 2003, and the related consolidated statements of income, cash flows and shareholders' equity for each of the years in the three-year period ended 30 September 2004. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Air Products and Chemicals, Inc. and subsidiaries as of 30 September 2004 and 2003, and the results of their operations and their cash flows for each of the years in the three-year period ended 30 September 2004 in conformity with U.S. generally accepted accounting principles.

KPMG LLP

KPMG LLP
Philadelphia, Pennsylvania
27 October 2004

Air Products and Chemicals, Inc. and Subsidiaries

Consolidated Income Statements

Year ended 30 September (millions of dollars, except for share data)	**2004**	2003	2002
Sales	**$7,411.4**	$6,297.3	$5,401.2
Costs and Expenses			
Cost of sales	**5,463.6**	4,613.1	3,815.7
Selling and administrative	**969.4**	842.6	718.1
Research and development	**126.7**	121.1	120.3
Other (income) expense, net	**(27.9)**	(26.5)	(37.1)
Global cost reduction plans, net	**—**	152.5	23.1
Operating Income	**879.6**	594.5	761.1
Equity affiliates' income	**92.8**	94.4	90.0
Gain on sale of U.S. packaged gas business	**—**	—	55.7
Interest expense	**121.0**	123.5	122.3
Income Before Taxes and Minority Interest	**851.4**	565.4	784.5
Income tax provision	**226.6**	147.2	240.8
Minority interest in earnings of subsidiary companies	**20.7**	18.0	18.3
Income Before Cumulative Effect of Accounting Change	**604.1**	400.2	525.4
Cumulative effect of accounting change	**—**	(2.9)	—
Net Income	**$ 604.1**	$ 397.3	$ 525.4
Weighted Average of Common Shares Outstanding (in millions)	**223.8**	219.7	217.2
Weighted Average of Common Shares Outstanding Assuming Dilution (in millions)	**228.9**	223.6	222.7
Basic Earnings per Common Share			
Income before cumulative effect of accounting change	**$ 2.70**	$ 1.82	$ 2.42
Cumulative effect of accounting change	—	(.01)	—
Net Income	**$ 2.70**	$ 1.81	$ 2.42
Diluted Earnings per Common Share			
Income before cumulative effect of accounting change	**$ 2.64**	$ 1.79	$ 2.36
Cumulative effect of accounting change	—	(.01)	—
Net Income	**$ 2.64**	$ 1.78	$ 2.36

The accompanying notes are an integral part of these statements.

Air Products and Chemicals, Inc. and Subsidiaries

Consolidated Balance Sheets

30 September (millions of dollars, except for share data)	2004	2003
Assets		
Current Assets		
Cash and cash items	**$ 146.3**	$ 76.2
Trade receivables, less allowances for doubtful accounts of $29.6 in 2004 and $21.8 in 2003	**1,454.7**	1,188.5
Inventories	**505.9**	483.1
Contracts in progress, less progress billings	**71.3**	82.8
Other current assets	**238.7**	278.9
Total Current Assets	**2,416.9**	2,109.5
Investment in Net Assets of and Advances to Equity Affiliates	**629.8**	553.5
Plant and Equipment, at cost	**12,201.5**	11,723.2
Less accumulated depreciation	**6,499.3**	6,086.1
Plant and Equipment, net	**5,702.2**	5,637.1
Goodwill	**830.5**	725.8
Intangible Assets, net	**101.4**	104.1
Other Noncurrent Assets	**359.6**	343.5
Total Assets	**$10,040.4**	$ 9,473.5
Liabilities and Shareholders' Equity		
Current Liabilities		
Payables and accrued liabilities	**$ 1,319.6**	$ 1,123.5
Accrued income taxes	**105.9**	115.6
Short-term borrowings	**35.4**	165.7
Current portion of long-term debt	**244.7**	176.4
Total Current Liabilities	**1,705.6**	1,581.2
Long-Term Debt	**2,113.6**	2,168.6
Deferred Income and Other Noncurrent Liabilities	**820.3**	1,005.9
Deferred Income Taxes	**788.0**	747.2
Total Liabilities	**5,427.5**	5,502.9
Minority Interest in Subsidiary Companies	**168.9**	188.1
Commitments and Contingencies—See Note 19		
Shareholders' Equity		
Common stock (par value $1 per share; issued 2004 and 2003—249,455,584 shares)	**249.4**	249.4
Capital in excess of par value	**551.8**	493.9
Retained earnings	**4,887.1**	4,516.6
Accumulated other comprehensive income (loss)	**(440.7)**	(567.2)
Treasury stock, at cost (2004—22,153,707 shares; 2003—22,189,714 shares)	**(764.8)**	(766.1)
Shares in trust (2004—1,527,101 shares; 2003—5,842,391 shares)	**(38.8)**	(144.1)
Total Shareholders' Equity	**4,444.0**	3,782.5
Total Liabilities and Shareholders' Equity	**$10,040.4**	$ 9,473.5

The accompanying notes are an integral part of these statements.

The Consolidated Financial Statements continued

Air Products and Chemicals, Inc. and Subsidiaries

Consolidated Statements of Cash Flows

Year ended 30 September (millions of dollars)	**2004**	2003	2002
Operating Activities			
Net income	**$ 604.1**	$ 397.3	$ 525.4
Adjustments to reconcile income to cash provided by operating activities:			
Depreciation and amortization	**714.9**	654.8	591.1
Impairment of long-lived assets	**3.9**	91.7	3.7
Deferred income taxes	**86.2**	26.8	65.2
Undistributed earnings of unconsolidated affiliates	**(44.6)**	(6.8)	(44.4)
Gain on sale of assets and investments	**(5.3)**	(8.4)	(66.5)
Other	**20.4**	14.8	44.2
Subtotal	**1,379.6**	1,170.2	1,118.7
Working capital changes, excluding effects of acquisitions and divestitures:			
Trade receivables	**(253.0)**	(88.0)	(13.1)
Inventories and contracts in progress	**(27.9)**	(53.2)	55.1
Payables and accrued liabilities	**5.3**	(9.6)	(143.9)
Other	**(18.1)**	16.6	47.1
Cash Provided by Operating Activities	**1,085.9**	1,036.0	1,063.9
Investing Activities			
Additions to plant and equipment	**(705.5)**	(612.9)	(627.6)
Acquisitions, less cash acquired	**(84.6)**	(529.6)	(114.8)
Investment in and advances to unconsolidated affiliates	**(18.8)**	(6.1)	(39.2)
Proceeds from sale of assets and investments	**46.2**	102.1	292.9
Other	**—**	(.1)	(4.9)
Cash Used for Investing Activities	**(762.7)**	(1,046.6)	(493.6)
Financing Activities			
Long-term debt proceeds	**286.3**	162.8	61.3
Payments on long-term debt	**(335.4)**	(271.0)	(203.6)
Net (decrease) increase in commercial paper and short-term borrowings	**(134.8)**	37.6	(170.9)
Dividends paid to shareholders	**(218.9)**	(188.6)	(175.6)
Proceeds from stock option exercises	**146.0**	76.5	103.8
Cash Used for Financing Activities	**(256.8)**	(182.7)	(385.0)
Effect of Exchange Rate Changes on Cash	**3.7**	15.8	2.2
Increase (Decrease) in Cash and Cash Items	**70.1**	(177.5)	187.5
Cash and Cash Items—Beginning of Year	**76.2**	253.7	66.2
Cash and Cash Items—End of Year	**$ 146.3**	$ 76.2	$ 253.7
Cash paid during the year for:			
Interest (net of amounts capitalized)	**$ 122.9**	$ 123.6	$ 124.1
Taxes (net of refunds)	**107.8**	79.1	136.5

The accompanying notes are an integral part of these statements.

Air Products and Chemicals, Inc. and Subsidiaries

Consolidated Statements of Shareholders' Equity

(millions of dollars, except for share data)	Number of Common Shares Outstanding	Common Stock	Capital in Excess of Par Value	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Treasury Stock	Shares in Trust	Total
Balance 30 September 2001	215,462,620	$249.4	$384.9	$3,965.9	$(452.5)	$(768.8)	$(273.1)	$3,105.8
Comprehensive Income:								
Net income				525.4				525.4
Net gain on derivatives, net of income tax of $.3					1.1			1.1
Translation adjustments, net of income tax of $29.8					50.1			50.1
Net change in unrealized holding gains, net of income tax of $1.6					(7.4)			(7.4)
Change in minimum pension liability, net of income tax of $81.4					(158.2)			(158.2)
Comprehensive Income								411.0
Issuance of treasury shares and shares in trust for stock options and award plans	3,072,503		30.3			1.0	68.9	100.2
Tax benefit of stock option and award plans			21.9					21.9
Cash dividends ($.82 per share)				(178.5)				(178.5)
Balance 30 September 2002	218,535,123	$249.4	$437.1	$4,312.8	$(566.9)	$(767.8)	$(204.2)	$3,460.4
Comprehensive Income:								
Net income				397.3				397.3
Net loss on derivatives, net of income tax of $2.5					(5.1)			(5.1)
Translation adjustments, net of income tax of $60.3					146.8			146.8
Net change in unrealized holding gains, net of income tax of $3.1					5.1			5.1
Change in minimum pension liability, net of income tax of $71.4					(147.1)			(147.1)
Comprehensive Income								397.0
Issuance of treasury shares and shares in trust for stock options and award plans	2,888,356		34.6			1.7	60.1	96.4
Tax benefit of stock option and award plans			22.2					22.2
Cash dividends ($.88 per share)				(193.5)				(193.5)
Balance 30 September 2003	221,423,479	$249.4	$493.9	$4,516.6	$(567.2)	$(766.1)	$(144.1)	$3,782.5
Comprehensive Income:								
Net income				604.1				604.1
Net loss on derivatives, net of income tax of $.4					(.6)			(.6)
Translation adjustments, net of income tax of $30.1					60.0			60.0
Net change in unrealized holding gains, net of income tax of $4.6					7.7			7.7
Change in minimum pension liability, net of income tax of $29.9					59.4			59.4
Comprehensive Income								730.6
Issuance of treasury shares and shares in trust for stock options and award plans	4,351,297		32.5			1.3	105.3	139.1
Tax benefit of stock option and award plans			25.4					25.4
Cash dividends ($1.04 per share)				(233.6)				(233.6)
Balance 30 September 2004	**225,774,776**	**$249.4**	**$551.8**	**$4,887.1**	**$(440.7)**	**$(764.8)**	**$ (38.8)**	**$4,444.0**

The accompanying notes are an integral part of these statements.

Notes to the Consolidated Financial Statements

(millions of dollars, except for share data)

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1. Major Accounting Policies

Consolidation Principles

The consolidated financial statements include the accounts of Air Products and Chemicals, Inc. and its majority-owned subsidiary companies (the company). The company consolidates all entities that it controls. Intercompany transactions and balances are eliminated in consolidation.

Estimates and Assumptions

The preparation of financial statements in accordance with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Revenue Recognition

Revenue from gases and chemicals sales is recognized as risk and title to the product transfers to the customer (which occurs at the time shipment is made), the sales price is fixed or determinable, and collectibility is reasonably assured. Sales returns and allowances are not a business practice in the industry.

Revenues from equipment sale contracts are recorded primarily using the percentage-of-completion method. Under this method, revenues from the sale of major equipment, such as natural gas liquefaction (LNG) heat exchangers and large air separation units, are recognized based on labor hours incurred to date compared with total estimated labor hours. Changes to total estimated labor hours and anticipated losses, if any, are recognized in the period determined.

Amounts billed for shipping and handling fees are classified as sales in the consolidated income statements. Costs incurred for shipping and handling are classified as cost of sales.

Depreciation

Depreciation is recorded using the straight-line method, which deducts equal amounts of the cost of each asset from earnings every year over its expected useful life. The estimated useful lives primarily range from 15 to 30 years (principally 30 years) for buildings and principally from 15 to 20 years for gas generating and chemical facilities, machinery and equipment.

Global Cost Reduction Plans

The company has a substantive ongoing severance arrangement. The benefits given as part of the 2003 and 2002 global cost reduction plans (discussed in Note 3) were consistent with termination benefits in previous, similar restructuring plans. Because the company's plans met the definition of an ongoing benefit arrangement, it was accounted for per Statement of Financial Accounting Standards (SFAS) No. 112, "Employers' Accounting for Postemployment Benefits." To recognize a liability under SFAS No. 112, the expense must be probable and estimable. These criteria were met when management, with the appropriate level and authority, had approved and committed to its plan of action for termination; the plan identified the employees to be terminated and their related benefits; and the plan was to be completed within one year. During periods of operations where terminations are made on an as-needed basis, absent a detailed committed plan, terminations are accounted for on an individual basis and a liability is recognized per SFAS No. 112 when probable and estimable.

As part of the 2003 and 2002 global cost reduction plans, write-downs of long-lived assets were accounted for under the provisions of SFAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets." Two types of assets were impacted: assets to be disposed of by sale and assets no longer in use to be abandoned. Assets to be disposed of by sale were measured at the lower of carrying amount or estimated net proceeds from the sale. The recognition criteria of SFAS No. 144 were met as management, with the appropriate level and authority, had approved and committed to a plan; the assets were available for immediate sale; management began an active program to locate a buyer; the sales were evaluated as being probable within one year; and it was unlikely that any changes to the plan would be made. The assets to be abandoned were no longer in use and were written down, net of expected recovery from disposal.

Financial Instruments

The company addresses certain financial exposures through a controlled program of risk management that includes the use of derivative financial instruments. The types of derivative financial instruments permitted for such risk management programs are specified in policies set by management. The company currently enters into foreign exchange contracts, including forward, option combination and purchased option contracts, to reduce the effects of fluctuating foreign currency exchange rates. The company currently enters into interest rate swap contracts to reduce interest rate risks and to modify the interest rate characteristics of its outstanding debt. The company is also currently party to cross currency interest rate swap agreements. Major financial institutions are counterparties to these contracts. The company has established counterparty credit guidelines and only enters into transactions with financial institutions of investment grade or better. Management believes the risk of incurring losses related to credit risk is remote, and any losses would be immaterial to consolidated financial results.

The company recognizes derivatives on the balance sheet at fair value. On the date the derivative instrument is entered into, the company generally designates the derivative as either (1) a hedge of the fair value of a recognized asset or liability or of an unrecognized firm commitment (fair value hedge), (2) a hedge of a forecasted transaction or of the variability of cash flows to be received or paid related to a recognized asset or liability (cash flow hedge), or (3) a hedge of a net investment in a foreign operation.

Changes in the fair value of a derivative that is designated as and meets all the required criteria for a fair value hedge, along with the gain or loss on the hedged asset or liability that is attributable to the hedged risk, are recorded in current period earnings.

Changes in the fair value of a derivative that is designated as and meets all the required criteria for a cash flow hedge are recorded in accumulated other comprehensive income and reclassified into earnings as the underlying hedged item affects earnings.

Changes in the fair value of a derivative or foreign currency debt that is designated as and meets all the required criteria for a hedge of a net investment are recorded as translation adjustments in accumulated other comprehensive income.

Changes in the fair value of a derivative that is not designated as a hedge are recorded immediately in earnings.

The company formally documents the relationships between hedging instruments and hedged items, as well as its risk management objective and strategy for undertaking various hedge transactions. This process includes relating derivatives that are designated as fair value or cash flow hedges to specific assets and liabilities on the balance sheet or to specific firm commitments or forecasted transactions. The company also formally assesses, both at the inception of the hedge and on an ongoing basis, whether each derivative is highly effective in offsetting changes in fair values or cash flows of the hedged item. If it is determined that a derivative is not highly effective as a hedge, or if a derivative ceases to be a highly effective hedge, the company will discontinue hedge accounting with respect to that derivative prospectively.

Foreign Currency

The value of the U.S. dollar rises and falls day to day on foreign currency exchanges. Since the company does business in many foreign countries, these fluctuations affect the company's financial position and results of operations.

For most foreign operations, local currencies are considered the functional currency. Generally, foreign subsidiaries translate their assets and liabilities into U.S. dollars at current exchange rates—that is, the rates in effect at the end of the fiscal period. The gains or losses that result from this process are shown in accumulated other comprehensive income in the shareholders' equity section of the balance sheet.

The revenue and expense accounts of foreign subsidiaries are translated into U.S. dollars at the average exchange rates that prevailed during the period. Therefore, the U.S. dollar value of these items on the income statement fluctuates from period to period, depending on the value of the dollar against foreign currencies. Some transactions are made in currencies different from an entity's functional currency. Gains and losses from these foreign currency transactions are generally included in income as they occur.

Environmental Expenditures

Accruals for investigatory, external legal costs and noncapital remediation costs are recorded when it is probable that a liability has been incurred and the amount of loss can be reasonably estimated. Remediation costs are capitalized if the costs improve the company's property as compared with the condition of the property when originally constructed or acquired, or if the costs prevent environmental contamination from future operations. Costs to operate and maintain the capitalized facilities are expensed as incurred.

The measurement of environmental liabilities is based on an evaluation of currently available facts with respect to each individual site and considers factors such as existing technology, presently enacted laws and regulations and prior experience in remediation of contaminated sites. These liabilities include costs related to other potentially responsible parties to the extent that the company has reason to believe such parties will not fully pay their proportionate share. They also do not take into account any claims for recoveries from insurance and are not discounted.

As assessments and remediation progress at individual sites, these liabilities are reviewed periodically and adjusted to reflect additional technical and legal information that becomes available. Actual costs to be incurred at identified sites in future periods may vary from the estimates, given inherent uncertainties in evaluating environmental exposures. The accruals for environmental liabilities are reflected in the balance sheet, primarily as part of other noncurrent liabilities.

Litigation

In the normal course of business, the company is occasionally involved in legal proceedings. The company accrues a liability for such matters when it is probable that a liability has been incurred and the amount can be reasonably estimated. When only a range of possible loss can be established, the most probable amount in the range is accrued. If no amount within this range is a better estimate than any other amount within the range, the minimum amount in the range is accrued. The accrual for a litigation loss contingency might include, for example, estimates of potential damages, outside legal fees, and other directly related costs expected to be incurred.

Stock-Based Compensation

The company has various stock-based compensation plans as described in Note 15. The company accounts for its stock option plans under the recognition and measurement principles of Accounting Principles Board (APB) Opinion No. 25, "Accounting for Stock Issued to Employees," and related Interpretations. No compensation expense has been recognized in net income for stock options. The following table illustrates the effect on net income and earnings per share as if the company had applied the fair value recognition provisions of SFAS No. 123, "Accounting for Stock-Based Compensation," to its stock option plans.

	2004	2003	2002
Net Income, as Reported	**$604.1**	$397.3	$525.4
Deduct stock option employee compensation expense determined under fair value-based method, net of related tax effects	**(30.6)**	(37.9)	(40.9)
Pro Forma Net Income	**$573.5**	$359.4	$484.5
Basic Earnings per Share			
As reported	**$ 2.70**	$ 1.81	$ 2.42
Pro forma	**2.56**	1.64	2.23
Diluted Earnings per Share			
As reported	**$ 2.64**	$ 1.78	$ 2.36
Pro forma	**2.51**	1.61	2.18

For disclosure purposes, the fair value of each stock option granted is estimated on the date of grant using the Black-Scholes option-pricing model with the following weighted average assumptions:

	2004	2003	2002
Dividend yield	**2.0%**	2.0%	2.0%
Expected volatility	**30.6%**	30.6%	30.1%
Risk-free interest rate	**4.0%**	3.6%	4.7%
Expected life (years)	**7.9**	7.9	7.8
Weighted average fair value per option	**$15.01**	$13.71	$12.90

The Black-Scholes option-pricing model was developed for use in estimating the fair value of traded options that have no vesting restrictions and are fully transferable. In addition, option-pricing models require the input of subjective assumptions, including the expected stock price volatility. Because the company's options have characteristics different from those of traded options, in the opinion of management, the existing models do not necessarily provide a reliable single measure of the fair value of its options.

Income Taxes

The company accounts for income taxes under the liability method. Under this method, deferred tax liabilities and assets are recognized for the tax effects of temporary differences between the financial reporting and tax bases of assets and liabilities using enacted tax rates. A principal temporary difference results from the excess of tax depreciation over book depreciation because accelerated methods of

depreciation and shorter useful lives are used for income tax purposes. The cumulative impact of a change in tax rates or regulations is included in income tax expense in the period that includes the enactment date.

Cash and Cash Items

Cash and cash items include cash, time deposits and certificates of deposit acquired with an original maturity of three months or less.

Allowances for Doubtful Accounts

The allowances for doubtful accounts represent estimated uncollectible receivables associated with potential customer defaults on contractual obligations, usually due to customers' potential insolvency. The allowances include amounts for certain customers where a risk of default has been specifically identified. In addition, the allowances include a provision for customer defaults on a general formula basis when it is determined the risk of some default is probable and estimable but cannot yet be associated with specific customers. The assessment of the likelihood of customer defaults is based on various factors, including the length of time the receivables are past due, historical experience and existing economic conditions. Provisions to the allowance for doubtful accounts recorded as expense were $18.3, $11.6 and $13.6 in 2004, 2003 and 2002, respectively.

Inventories

Inventories are stated at the lower of cost or market. The company writes down its inventories for estimated obsolescence or unmarketable inventory based upon assumptions about future demand and market conditions.

The cost of chemical inventories and some gas and equipment inventories in the United States is determined using the last-in, first-out (LIFO) method. The cost of other inventories is principally determined using the first-in, first-out (FIFO) method.

As of 30 September 2003, the company changed its method of accounting for LIFO inventory by reducing the number of LIFO inventory pools from ten to three pools. This newly adopted accounting principle is preferable as each pool will include items with similar economic activity. The adoption of this new accounting principle did not have a material effect on the company's financial statements.

Equity Investments

The equity method of accounting is used when the company has a 20% to 50% interest in other companies and exercises significant influence. Under the equity method, original investments are recorded at cost and adjusted by the company's share of undistributed earnings or losses of these companies.

Equity investments are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of the investment may not be recoverable.

Financial Accounting Standards Board (FASB) Interpretation No. 46/R defines a variable interest entity and establishes standards under which a variable interest entity should be consolidated by the primary beneficiary. The company has reviewed its investments and has concluded it does not have an interest in a variable interest entity. Therefore, the company accounts for its equity investments under the provisions of APB Opinion No. 18, "The Equity Method of Accounting for Investments in Common Stock."

Plant and Equipment

Plant and equipment is stated at cost less accumulated depreciation. Construction costs, labor and applicable overhead related to installations are capitalized. Expenditures for additions and improvements that extend the lives or increase the capacity of plant assets are capitalized. The costs of maintenance and repairs of plant and equipment are charged to expense as incurred.

Fully depreciated assets are retained in the gross plant and equipment and accumulated depreciation accounts until they are removed from service. In the case of disposals, assets and related depreciation are removed from the accounts, and the net amounts, less proceeds from disposal, are included in income.

Capitalized Interest

As the company builds new plant and equipment, it includes in the cost of these assets a portion of the interest payments it makes during the year. The amount of capitalized interest was $5.5, $4.2 and $9.4 in 2004, 2003 and 2002, respectively.

Asset Retirement Obligations

The fair value of a liability for an asset retirement obligation is recognized in the period in which it is incurred. The liability is measured at discounted fair value and is adjusted to its present value in subsequent periods as accretion expense is recorded. The corresponding asset retirement costs are capitalized as part of the carrying amount of the related long-lived asset and depreciated over the asset's useful life. The company's asset retirement obligations are primarily associated with Gases on-site long-term supply contracts under which the company has built a facility on land leased from the customer and is obligated to remove the facility at the end of the contract term. The company's asset retirement obligations are not material to the company's financial statements.

Computer Software

The company capitalizes costs incurred to purchase or develop software for internal use. Capitalized costs include purchased computer software packages, payments to vendors/consultants for development and implementation or modification to a purchased package to meet company requirements, payroll and related costs for employees directly involved in development, and interest incurred while software is being developed. Capitalized computer software costs are included in the balance sheet classification plant and equipment and depreciated over the estimated useful life of the software, generally a period of three to ten years. The company's newly implemented SAP system will be depreciated over a ten-year life.

Impairment of Long-Lived Assets

Long-lived assets are evaluated for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. The company assesses recoverability by comparing the carrying amount of the asset to estimated undiscounted future cash flows expected to be generated by the asset. If an asset is considered impaired, the impairment loss to be recognized is measured as the amount by which the asset's carrying amount exceeds its fair value. Long-lived assets to be disposed of are reported at the lower of carrying amount or fair value less cost to sell.

Goodwill

The company's acquisitions are accounted for using the purchase method. The purchase price is allocated to the assets acquired and liabilities assumed based on their estimated fair market values. Any excess purchase price over the fair market value of the net assets acquired, including identified intangibles, is recorded as goodwill. Preliminary purchase price allocations are made at the date of acquisition and finalized when information needed to affirm underlying estimates is obtained and/or within a maximum allocation period of one year.

Goodwill is subject to impairment testing at least annually. In addition, goodwill would be tested more frequently if a change in circumstances or the occurrence of events indicated that potential impairment exists. Refer to Note 10 for disclosures related to goodwill.

Intangible Assets

Intangible assets with determinable lives primarily consist of customer relationships, noncompete covenants and purchased patents and technology. There were no acquired intangible assets with indefinite lives. The cost of intangible assets with determinable lives is amortized on a straight-line basis over the estimated period of economic benefit. No residual value is estimated for these intangible assets.

Customer relationships are generally amortized over periods of four to twenty years. Noncompete covenants are generally amortized over periods of three to five years based on contractual terms. Purchased patents and technology and other intangibles are amortized based on contractual terms, ranging from eight to twenty years. Amortizable lives are adjusted whenever there is a change in the estimated period of economic benefit.

Retirement Benefits

The cost of retiree benefits is recognized over the employees' service period. The company's defined benefit pension plans are accounted for in accordance with SFAS No. 87, "Employers' Accounting for Pensions." Nonpension post-retirement benefits are accounted for in accordance with SFAS No. 106, "Employers' Accounting for Postretirement Benefits Other Than Pensions." These Statements require the use of actuarial methods and assumptions in the valuation of benefit obligations and the performance of plan assets. Differences between actual and expected results or changes in the value of obligations and plan assets are not recognized as they occur but rather, systematically and gradually over subsequent periods. Refer to Note 18 for disclosures related to the company's pension and other postretirement benefits.

Shares in Trust

The company has established a trust, funded with treasury stock, to provide for a portion of future payments to employees under the company's existing compensation and benefit programs. Shares issued to the trust were valued at market price on the date of contribution and reflected as a reduction of shareholders' equity in the balance sheet. As shares are transferred from the trust to fund compensation and benefit obligations, this equity account is reduced based on the original cost of shares to the trust; the satisfaction of liabilities is based on the fair value of shares transferred; and the difference between the fair value of shares transferred and the original cost of shares to the trust is charged or credited to capital in excess of par value.

Reclassifications

As of 1 October 2003, the company changed its reporting to include overhead expenses incurred by the company related to equity affiliates in selling and administrative expense. Previously, these expenses related to equity affiliates were reported in the income statement line item for equity affiliates' income, net of related expenses. Equity affiliates' income now includes the company's proportionate share of earnings of the affiliates and the gain or loss on the sale of investments in equity affiliates. The consolidated income statements of the prior periods were adjusted to reflect this reclassification.

Certain prior period amounts have been reclassified to conform to the current period presentation.

2. New Accounting Standards

Standards Adopted 2004

In December 2003, the FASB published a revision to Interpretation No. 46, "Consolidation of Variable Interest Entities," to clarify some of the provisions of Interpretation No. 46. The revision to Interpretation No. 46 does not change the company's determination that it does not have an interest in a variable interest entity.

In December 2003, the FASB also issued a revised SFAS No. 132, "Employers' Disclosures about Pensions and Other Postretirement Benefits," which added disclosure requirements for defined benefit plans. The company has included the annual required disclosures in Note 18 to the consolidated financial statements.

In May 2004, the FASB issued a FASB Staff Position (FSP) No. FAS 106-2, "Accounting and Disclosure Requirements Related to the Medicare Prescription Drug, Improvement and Modernization Act of 2003 (Act)." This FSP provides guidance on the accounting for the effects of the Act for employers that sponsor postretirement health care plans that provide prescription drug benefits. The impact of the Act on the company's postretirement medical benefits is not material.

Standards Adopted 2003

The company adopted SFAS No. 143, "Accounting for Asset Retirement Obligations," on 1 October 2002 and accounts for these obligations as discussed in Note 1. At 1 October 2002, the company recognized transition amounts for existing asset retirement obligation liabilities, associated capitalizable costs and accumulated depreciation. An after-tax transition charge of $2.9 was recorded as the cumulative effect of an accounting change. The ongoing expense on an annual basis resulting from the initial adoption of SFAS No. 143 is approximately $ 1.

In August 2001, the FASB issued SFAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets." This Statement establishes a single accounting model for long-lived assets to be disposed of by sale. The Statement retains most of the requirements in SFAS No. 121 related to the recognition of impairment of long-lived assets to be held and used. Additionally, SFAS No. 144 broadens the definition of businesses that qualify for reporting as discontinued operations and changes the timing of recognizing losses on such operations. The company adopted this Statement as of 1 October 2002, with no material effect on the company's financial statements.

In June 2002, the FASB issued SFAS No. 146, "Accounting for Costs Associated with Exit or Disposal Activities." This Statement addresses the accounting for costs associated with disposal activities covered by SFAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets," and with exit (restructuring) activities previously covered by Emerging Issues Task Force (EITF) Issue No. 94-3, "Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity." This Statement nullifies EITF Issue No. 94-3 in its entirety and requires that a liability for all costs be recognized when the liability is incurred. Generally, the ability to accrue for termination benefits at the communication date of a plan in the form of a one-time benefit arrangement is limited. The cost of the termination benefits would be recognized over the future service period of the employees. This Statement does not change the accounting for termination benefits under ongoing benefit arrangements such as those included in the company's global cost reduction plans discussed in Note 3. The company adopted SFAS No. 146 as of 1 October 2002. The adoption of this Statement did not have an impact on the company's financial statements.

In November 2002, the FASB published Interpretation No. 45, "Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others." The Interpretation expands on the disclosure requirements to be made in interim and annual financial statements. The company has included the required disclosures in Note 19. The Interpretation also requires that a liability measured at fair value be recognized for guarantees, even if the probability of payment on the guarantee is remote. The recognition provisions applied on a prospective basis for guarantees issued or modified after 31 December 2002. The company has not issued or modified any guarantees subsequent to 31 December 2002.

In November 2002, the EITF reached a consensus on Issue No. 00-21, "Accounting for Revenue Arrangements with Multiple Deliverables." This Issue addresses the appropriate accounting by vendors for arrangements that will result in the delivery of multiple products, services and/or rights to assets that could occur over a period of time. The application of EITF Issue No. 00-21 did not have a material effect on the company's financial statements.

In December 2002, the FASB issued SFAS No. 148, "Accounting for Stock-Based Compensation—Transition and Disclosure." SFAS No. 148 amends the disclosure requirements of SFAS No. 123 to require more prominent and frequent disclosures in financial statements. Also, SFAS No. 148 provides alternative methods of transition for a voluntary change to the fair value-based method of accounting for stock-based employee compensation. The company has included the disclosures prescribed by SFAS No. 148 in Note 1. The company does not intend to change its accounting method for stock-based compensation until a new uniform accounting standard is issued.

In January 2003, the FASB published Interpretation No. 46, "Consolidation of Variable Interest Entities." This Interpretation clarifies the application of Accounting Research Bulletin No. 51, "Consolidated Financial Statements," to certain entities in which equity investors do not have the characteristics of a controlling financial interest or do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support from other parties. The Interpretation establishes standards under which a variable interest entity should be consolidated by the primary beneficiary. The company does not have an interest in a variable interest entity.

In April 2003, the FASB issued SFAS No. 149, "Amendment of Statement 133 on Derivative Instruments and Hedging Activities." In May 2003, the FASB issued SFAS No. 150, "Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity." The adoption of these Statements did not have a material effect on the company's financial statements.

In May 2003, the FASB ratified the EITF consensus on Issue No. 01-08, "Determining Whether an Arrangement Contains a Lease." The EITF consensus applied prospectively to new or modified arrangements beginning after 30 June 2003. The Issue addresses how to determine whether an arrangement contains a lease that is within the scope of SFAS No. 13, "Accounting for Leases." Under the EITF consensus, certain contracts within the company's Gases segment associated with on-site tonnage facilities servicing one customer may potentially be considered leases. In cases where operating-lease treatment is necessary, there would be no change to the company's financial results. In cases where capital-lease treatment is necessary, the timing of revenue and expense recognition would be impacted. Revenue would be recognized immediately for the sale of equipment component of a contract (as compared to the current method of revenue recognition over the life of the arrangement). A portion of revenues formerly reported as sales would be reflected as interest income resulting from the lease receivable. The application of this EITF consensus did not have a material effect on the financial statements in 2003 or 2004. The impact of the EITF consensus on the company's financial statements beyond 2004 is dependent upon the contracts executed and potential changes in business practices and contractual arrangements.

Standards Adopted 2002

In June 2001, the FASB issued SFAS No. 142, "Goodwill and Other Intangible Assets." SFAS No. 142 addresses financial accounting and reporting for acquired goodwill and intangible assets. The Statement provides that goodwill and intangible assets with indefinite lives are no longer amortized on a recurring basis but instead are subject to impairment testing at least annually. The company adopted SFAS No. 142 on 1 October 2001. Accordingly, the company no longer amortizes goodwill, including goodwill associated with investments in equity affiliates. In accordance with the provisions of SFAS No. 142, the company performed impairment tests on goodwill which indicated no impairment of goodwill. Disclosures required by SFAS No. 142 are presented in Note 10.

In April 2002, the FASB issued SFAS No. 145, "Rescission of FASB Statements No. 4, 44 and 64, Amendment of FASB Statement No. 13 and Technical Corrections." This Statement rescinds SFAS No. 4, "Reporting Gains and Losses from Extinguishment of Debt," and SFAS No. 64, "Extinguishments of Debt Made to Satisfy Sinking-Fund Requirements." The Statement requires gains and losses from debt extinguishments that are used as part of the company's risk management strategy to be classified as income from operations rather than as extraordinary items, net of tax. The company adopted this Statement as of 1 July 2002. The impact on the company was to reclassify the extraordinary item recorded in the fourth quarter of 2001 to income from continuing operations.

3. Global Cost Reduction Plans

2003 Plan

In 2003, the company recorded an expense of $152.7 for a global cost reduction plan (2003 Plan). This expense included $56.8 for severance and pension-related benefits and $95.9 for asset disposals and facility closures in the Gases and Chemicals segments.

During the third quarter of 2003, the company completed a capacity utilization analysis in several businesses in the Gases segment. To reduce capacity and costs, several facilities ceased operation as of 30 June 2003. An expense of $37.6 was recognized for the closure of these facilities, net of expected recovery from disposal. A decision was made to terminate several incomplete capacity expansion projects. An expense of $13.0 was recognized for the cost of terminating these projects, net of expected recovery from disposal and redeployment. An expense of $3.6 was also recognized for the planned sale of two real estate properties and the termination of several leases for small facilities. These expenses were principally in the North American merchant and tonnage businesses with a modest amount in the Electronics business.

The rationalization of excess capacity in certain products resulted in a decision to exit certain Chemical Intermediates operations. Late in the quarter ended 30 June 2003, the company decided to pursue the sale of its European methylamines and derivatives business. Expected proceeds from the sale were determined, and a loss was recognized for the difference between the carrying value of the assets and the expected net proceeds from the sale. Additional expenses for the closure of the methanol and ammonia plants in Pensacola, Florida, which made products for internal consumption, were also recognized. The total expense for these actions was $41.7.

In addition to the capacity reduction initiatives, the company implemented cost reduction and productivity-related efforts. The divestitures, the capacity reductions and the cost control initiatives will result in the elimination of approximately 460 positions from the company after the completion of the European methylamines and derivatives business divestiture. Approximately 30% of the position reductions relates to capacity rationalization and divestitures. An additional 40% relates to ongoing productivity efforts and balancing engineering resources with project activity, and the remaining 30% relates to a reduction in the number of management positions. The 2003 Plan was completed as expected in June 2004 with the exception of the planned sale of the European methylamines and derivatives business. In April 2004, the company announced the proposed sale of this business, which is pending regulatory approval.

The following table presents the detail of expenses by segment for the global cost reduction plan recorded in 2003:

	Severance	Pension	Other[(A)]	Total
Gases	$27.1	$10.9	$54.2	$ 92.2
Chemicals	14.4	2.0	41.7	58.1
Equipment	2.2	.2	—	2.4
Provision for 2003 Plan	$43.7	$13.1	$95.9	$152.7
Reversal of 2002 Plan	(.2)	—	—	(.2)
Net Expense in 2003	$43.5	$13.1	$95.9	$152.5

(A) Asset impairments and related expenses are included in the other category.

2002 Plan

In 2002, the company recorded an expense of $30.8 for a global cost reduction plan (2002 Plan), including U.S. packaged gas divestiture-related reductions. This expense included $27.1 for severance and pension-related benefits and $3.7 for asset impairments related to the planned sale or closure of two small chemical facilities. The 2002 Plan included 333 position eliminations in the areas of manufacturing, engineering, distribution and overheads. The 2002 Plan was completed as expected in March 2003.

The following table presents the detail of expenses by segment for the global cost reduction plan recorded in 2002:

	Severance	Pension	Other[(A)]	Total
Gases	$15.6	$10.6	$ —	$26.2
Chemicals	.8	.1	3.7	4.6
Provision for 2002 Plan	$16.4	$10.7	$3.7	$30.8
Reversal of 2001 Plan	(7.1)	—	(.6)	(7.7)
Net Expense in 2002	$ 9.3	$10.7	$3.1	$23.1

(A) Asset impairments and related expenses are included in the other category.

Plan Accrual

The following table summarizes changes to the carrying amount of the accrual for global cost reduction plans:

Balance as of	Severance	Pension	Other[(A)]	Total
30 September 2001	$ 49.1	$ —	$ 1.5	$ 50.6
Provision	16.4	10.7	3.7	30.8
Noncash expenses	—	(10.7)	(3.7)	(14.4)
Cash expenditures	(51.6)	—	(.9)	(52.5)
Reverse 2001 Plan balance	(7.1)	—	(.6)	(7.7)
30 September 2002	$ 6.8	$ —	$ —	$ 6.8
Provision	43.7	13.1	95.9	152.7
Noncash expenses	—	(13.1)	(90.1)	(103.2)
Cash expenditures	(11.7)	—	(1.7)	(13.4)
Reverse 2002 Plan balance	(.2)	—	—	(.2)
30 September 2003	$ 38.6	$ —	$ 4.1	$ 42.7
Transfers	.9	—	(.9)	—
Cash expenditures	(34.2)	—	(3.2)	(37.4)
30 September 2004	**$ 5.3**	**$ —**	**$ —**	**$ 5.3**

(A) Asset impairments and related expenses are included in the other category.

4. Acquisitions

Acquisitions in 2004, totaling $84.6, included six small U.S. homecare businesses. Acquisitions in 2003, totaling $529.6, included Ashland’s Electronic Chemicals business, American Homecare Supply, LLC (AHS), additional small homecare businesses, and Sanwa Chemical Industry Co., Ltd. Acquisitions in 2002, totaling $114.8, principally included the purchase of an additional 22% of the outstanding shares of San Fu Gas Company, Ltd. (San Fu).

Acquisitions in 2004
U.S. Homecare Businesses

During 2004, the company acquired six small U.S. homecare businesses for $75.1. Goodwill recognized in these transactions amounted to $61.1, of which $25.3 is deductible for tax purposes. Identified intangibles included in these transactions amounted to $9.2. These acquisitions contributed $46.0 to sales in 2004.

San Fu

In February 2004, the company purchased an additional 4% ownership interest in San Fu.

Acquisitions in 2003

Ashland's Electronic Chemicals Business

On 29 August 2003, the company acquired the Electronic Chemicals business of Ashland Specialty Chemical Company, a division of Ashland Inc., in a cash transaction valued at $293.2. Goodwill recognized in this transaction amounted to $100.6, of which $21.3 is deductible for tax purposes. Identified intangibles included in this transaction amounted to $27.1. Ashland's Electronic Chemicals business is a leading global supplier of ultrapure specialty chemicals and services used by the electronics industry to make semiconductor devices. With annual revenues of approximately $200, the Electronic Chemicals business of Ashland has a global network of sales and marketing offices in North America, Europe and Asia.

American Homecare Supply, LLC (AHS)

In October 2002, the company acquired AHS, a homecare market leader throughout the northeastern United States, for $165.8. Subsequently, AHS acquired additional small homecare businesses for $52.3 and was renamed Air Products Healthcare. Goodwill recognized in these transactions amounted to $153.8, of which $102.1 is deductible for tax purposes. Identified intangibles included in these transactions amounted to $20.7. These acquisitions contributed $155.9 to sales in 2003. Prior to these acquisitions, the company and its affiliates had a homecare position serving approximately 180,000 patients in Europe. With these acquisitions, the company and its affiliates provide home medical services to more than 400,000 patients in 14 countries, a significant step in its strategy to be a global healthcare provider.

Acquisitions in 2002

San Fu Gas Company, Ltd. (San Fu)

In July 2002, the company purchased an additional 22% of the outstanding shares of San Fu, increasing its ownership interest from 48% to 70%. Since 1987, the company has had a joint venture ownership of San Fu, the largest industrial gas company in Taiwan. San Fu is a full-service industrial gas and chemical company with a broad product portfolio, supplying specialty gases, electronic piping and equipment, liquid bulk gases, on-site/pipeline gases and chemicals to the Taiwan marketplace. This investment is consistent with the company's strategy of investing in growth markets (Asia) and industries (electronics) and provides a stronger foundation for growth in both Taiwan and China.

As of 30 June 2002, the company accounted for its investment in San Fu using the equity method. In July 2002, the company obtained control through the acquisition of an additional 22% of the outstanding shares and began to consolidate this investment. San Fu had revenues of approximately $215 for the twelve months ended 30 September 2002. Goodwill recognized in this transaction amounted to $51.4, which was not deductible for tax purposes. Identified intangibles included in this transaction amounted to $19.5. As part of this transaction, put options have been issued which give other shareholders the right to sell San Fu stock to the company at market price when exercised. The options are effective from January 2005 through January 2015 and allow for the sale of all stock owned by other shareholders to the company.

5. Divestitures

Divestitures in 2003

Sale of Canadian Packaged Gas Business

On 1 April 2003, the company completed the sale of the majority of its Canadian packaged gas business to the BOC Group for cash proceeds of $41.2.

Divestitures in 2002

Sale of U.S. Packaged Gas Business

On 28 February 2002, the company completed the sale of the majority of its U.S. packaged gas business, excluding the electronic gases and magnetic resonance imaging-related helium operations, to Airgas, Inc. This sale included approximately 100 facilities in 30 states associated with the filling and distribution of cylinders, liquid dewars, tube trailers and other containers of industrial gases and nonelectronic specialty gases and the retail selling of welding hard goods, including customer service centers, warehouses and other related assets. The company also sold its packaged gas operations in the Carolinas and in southern Virginia to National Welders Supply Company, Inc., a joint venture between Airgas and the Turner family of Charlotte, N.C. For the five months ended 28 February 2002, the assets sold generated revenues of approximately $100, with a modest contribution to operating income. These facilities employed 1,200 people. The cash proceeds from these transactions were $254.5. The results for 2002 included a gain of $55.7.

6. Financial Instruments

Currency Risk Management

The company does business in many foreign countries. Therefore, its earnings, cash flows and financial position are exposed to foreign currency risk from foreign currency denominated transactions and net investments in foreign operations.

It is the policy of the company to minimize its cash flow exposure to adverse changes in currency and exchange rates. This is accomplished by identifying and evaluating the risk that the company's cash flows will decline in value due to changes in exchange rates, and by determining the appropriate strategies necessary to manage such exposures. The company's objective is to maintain economically balanced currency risk management strategies that provide adequate downside protection.

The company enters into a variety of foreign exchange contracts, including forward, option combination and purchased option contracts, to hedge its exposure to fluctuations in foreign currency exchange rates. These agreements generally involve the exchange of one currency for a second currency at some future date.

The company enters into foreign exchange contracts, including forward, option combination and purchased option contracts, to reduce the cash flow exposure to foreign currency fluctuations associated with certain monetary assets and liabilities, as well as highly anticipated cash flows and certain firm commitments. Examples of such exposures are the purchase of plant and equipment and export sales transactions. Forward exchange contracts are also used to hedge the value of investments in certain foreign subsidiaries and affiliates by creating a liability in a currency in which the company has a net equity position. The company also uses foreign currency denominated debt to hedge certain net investments in and future cash flows from foreign operations.

Certain forward exchange contracts entered into by the company are not designated as hedging instruments. Contracts used to hedge the exposure to foreign currency fluctuations associated with certain monetary assets and liabilities are not designated as hedging instruments, and changes in the fair value of these items are recorded in earnings to offset the foreign exchange gains and losses of the monetary assets and liabilities. Other forward exchange contracts may be used to economically hedge foreign currency exposures and not be designated as hedging instruments due to the immaterial amount of the underlying hedged exposures. Changes in the fair value of these contracts are also recorded in earnings.

Debt Portfolio Management

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

The company enters into interest rate swap agreements to change the fixed/variable interest rate mix of its debt portfolio in order to maintain the percentage of fixed- and variable-rate debt within the parameters set by management. In accordance with these parameters, the agreements are used to reduce interest rate risks and costs inherent in the company's debt portfolio. The notional amount of these agreements is equal to or less than the designated debt instrument being hedged. The variable rate indices of the swap instruments and the debt to which they are designated are the same. It is the company's policy not to enter into any interest rate swap contracts which lever a move in interest rates on a greater than one-to-one basis.

The company is also party to cross currency interest rate swap contracts. These contracts entail both the exchange of fixed- and floating-rate interest payments periodically over the life of the agreement and the exchange of one currency for another currency at inception and at a specified future date. These contracts effectively convert the currency denomination of a debt instrument into another currency in which the company has a net equity position while changing the interest rate characteristics of the instrument. The contracts are used to hedge intercompany and third-party borrowing transactions and certain net investments in foreign operations.

Fair Value Hedges

For the years ended 30 September 2004 and 2003, there was no material gain or loss recognized in earnings resulting from hedge ineffectiveness or from excluding a portion of derivative instruments' gain or loss from the assessment of hedge effectiveness related to derivatives designated as fair value hedges. Also, the amount recognized in earnings in 2004 and 2003 as a result of a hedged firm commitment no longer qualifying as a fair value hedge was not material.

Cash Flow Hedges

For the years ended 30 September 2004 and 2003, there was no material gain or loss recognized in earnings resulting from hedge ineffectiveness or from excluding a portion of derivative instruments' gain or loss from the assessment of hedge effectiveness related to derivatives designated as cash flow hedges.

The amount reclassified from accumulated other comprehensive income into earnings as a result of the discontinuance of foreign currency cash flow hedges due to the probability of the original forecasted transactions not occurring by the original specified time period was not material

in 2004 and 2003. The amount in other comprehensive income expected to be reclassified into earnings in 2005 is also not material.

As of 30 September 2004, the maximum length of time over which the company is hedging its exposure to the variability in future cash flows for forecasted transactions is two years.

Hedges of Net Investments in Foreign Operations

For the years ended 30 September 2004 and 2003, $105.0 and $178.2, respectively, of net losses related to hedges of net investments in foreign operations were included in accumulated other comprehensive income within shareholders' equity.

Fair Value of Financial Instruments

Summarized below are the carrying values and fair values of the company's financial instruments as of 30 September 2004 and 2003:

30 September	2004 Carrying Value	2004 Fair Value	2003 Carrying Value	2003 Fair Value
Assets				
Other investments	**$ 79.3**	**$ 79.3**	$ 63.4	$ 63.4
Currency option contracts	**—**	**—**	.1	.1
Interest rate swap agreements	**20.3**	**20.3**	21.3	21.3
Liabilities				
Cross currency interest rate swap contracts	**$ 18.4**	**$ 18.4**	$ 9.5	$ 9.5
Forward exchange contracts	**90.6**	**90.6**	66.1	66.1
Long-term debt, including current portion	**2,358.3**	**2,442.7**	2,345.0	2,487.9

The carrying amounts reported in the balance sheet for cash and cash items, accounts receivable, payables and accrued liabilities, accrued income taxes and short-term borrowings approximate fair value due to the short-term nature of these instruments. Accordingly, these items have been excluded from the above table. The fair value of other investments is based principally on quoted market prices.

The fair values of the company's debt, interest rate swap agreements and foreign exchange contracts are based on estimates using standard pricing models that take into account the present value of future cash flows as of the balance sheet date. The computation of the fair values of these instruments is generally performed by the company.

The fair value of other investments is reported within other noncurrent assets on the balance sheet. The fair value of foreign exchange contracts, cross currency interest rate swaps, and interest rate swaps is reported in the balance sheet in the following line items: other current assets, other noncurrent assets, payables and accrued liabilities, and deferred income and other noncurrent liabilities.

Changes in the fair value of foreign exchange contracts designated as hedges are recorded or reclassified into earnings and are reflected in the income statement classification of the corresponding hedged item, e.g., hedges of purchases recorded to cost of sales, hedges of sales transactions recorded to sales. The changes in fair value of foreign exchange contracts not designated as hedging instruments are reported in the income statement as other (income) expense, offsetting the fair value changes of foreign currency denominated monetary assets and liabilities also recorded to other (income) expense. Fair value changes of interest rate swaps are recorded to interest expense, offsetting changes in the fair value of associated debt instruments which are also recorded to interest expense.

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

7. Inventories

The components of inventories are as follows:

30 September	2004	2003
Inventories at FIFO Cost		
Finished goods	**$380.8**	$327.2
Work in process	**12.6**	26.8
Raw materials and supplies	**166.2**	165.8
	559.6	519.8
Less excess of FIFO cost over LIFO cost	**(53.7)**	(36.7)
	$505.9	$483.1

Inventories valued using the LIFO method comprised 46.1% and 49.3% of consolidated inventories before LIFO adjustment at 30 September 2004 and 2003, respectively. Liquidation of prior years' LIFO inventory layers in 2004, 2003 and 2002 did not materially affect results of operations in any of these years.

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

As discussed in Note 1, in 2003, the company changed its method of accounting for LIFO inventory by reducing the number of LIFO inventory pools. The adoption of this new accounting principle did not have a material effect on the company's financial statements.

8. Summarized Financial Information of Equity Affiliates

The following table presents summarized financial information on a combined 100% basis of the principal companies accounted for by the equity method. Amounts presented include the accounts of the following equity affiliates: Air Products South Africa (50%); Bangkok Cogeneration Company Limited (48.8%); Bangkok Industrial Gases Company Ltd. (50.6%); Daido Air Products Electronics, Inc. (49%); DuPont Air Products Nanomaterials, LLC (50%); Europoort Utility Partners V.O.F. (50%); Helap S.A. (50%); INFRA Group (40%); INOX Air Products Limited (INOX) (49.6%); Island Pipeline Gas (33%); Pure Air on the Lake, L.P. (50%); Sapio Produzione Idrogeno Ossigeno S.r.L. (49%); SembCorp Air Products (HyCo) Pte. Ltd. (40%); Stockton CoGen Company (50%); Tyczka Industrie-Gases GmbH (50%); Wacker Polymer Systems GmbH & CoKG (20%); and principally, other industrial gas producers.

	2004	2003
Current assets	**$ 868.8**	$ 732.7
Noncurrent assets	**1,499.4**	1,449.3
Current liabilities	**508.5**	537.5
Noncurrent liabilities	**626.7**	526.3
Net sales	**1,879.7**	1,617.8
Sales less cost of sales	**717.2**	601.9
Net income	**240.0**	171.7

In 2003, the company recorded favorable adjustments of $22.7 related to prior period divestitures. Dividends received from equity affiliates were $46.4, $64.1 and $42.0 in 2004, 2003 and 2002, respectively.

The investment in net assets of and advances to equity affiliates as of 30 September 2004 and 2003 included investment in foreign affiliates of $589.7 and $518.3, respectively.

As of 30 September 2004 and 2003, the amount of investment in companies accounted for by the equity method included goodwill in the amount of $66.9 and $67.7, respectively.

9. Plant and Equipment

The major classes of plant and equipment, at cost, are as follows:

30 September	**2004**	2003
Land	**$ 165.6**	$ 164.8
Buildings	**789.8**	800.8
Gas generating and chemical facilities, machinery and equipment	**10,842.8**	10,386.8
Construction in progress	**403.3**	370.8
	$12,201.5	$11,723.2

10. Goodwill

Changes to the carrying amount of consolidated goodwill by segment are as follows:

Balance as of	Gases	Chemicals	Equipment	Total
30 September 2002	$332.1	$89.6	$ 9.4	$431.1
Acquisitions and adjustments	251.3	2.7	—	254.0
Goodwill related to the sale of Canadian packaged gas business	(9.7)	—	—	(9.7)
Currency translation and other	45.5	4.6	.3	50.4
30 September 2003	$619.2	$96.9	$ 9.7	$725.8
Acquisitions and adjustments	78.8	(.7)	—	78.1
Currency translation and other	23.2	3.1	.3	26.6
30 September 2004	**$721.2**	**$99.3**	**$10.0**	**$830.5**

The 2004 increase in goodwill was principally due to the acquisition of several small U.S. homecare businesses and a 4% increase in ownership of San Fu. In 2003, the increase in goodwill was principally due to the acquisitions of AHS and other U.S. homecare businesses, and Ashland Electronic Chemicals.

The company conducted the required annual test of goodwill for impairment in the fourth quarter of 2004. There were no indications of impairment.

11. Intangible Assets

All acquired intangible assets are subject to amortization. No residual value is estimated for these intangible assets. Acquired intangible assets are as follows:

	Gross	Accumulated Amortization	Net
Customer relationships	$ 95.0	$ 27.4	$ 67.6
Patents and technology	70.0	46.9	23.1
Noncompete covenants	15.7	12.1	3.6
Other	25.6	15.8	9.8
30 September 2003	$206.3	$102.2	$104.1
Customer relationships	$107.3	$ 36.7	$ 70.6
Patents and technology	59.6	40.4	19.2
Noncompete covenants	9.5	6.6	2.9
Other	25.3	16.6	8.7
30 September 2004	**$201.7**	**$100.3**	**$101.4**

In 2004, the decrease in intangible assets was due to the expiration of technology agreements and noncompete covenants which more than offset the additional customer relationships related to the acquisition of several small U.S. homecare businesses.

Amortization expense for intangible assets was $18.9, $14.6 and $10.1 in 2004, 2003 and 2002, respectively. Projected annual amortization expense for intangible assets as of 30 September 2004 is as follows:

2005	$ 19.1
2006	18.8
2007	16.8
2008	15.5
2009	11.1
Thereafter	20.1
Total	$101.4

12. Long-Term Debt

The following table shows the company's outstanding debt at the end of 2004 and 2003:

30 September	Maturities	**2004**	2003
Payable in U.S. Dollars:			
Debentures: (effective rate)			
8.50% (8.55%)	2006	**$ —**	$ 100.0
8.75% (8.95%)	2021	**18.4**	18.4
Notes: (effective rate)			
7.375% (7.54%)	2005	**150.0**	150.0
Medium-term notes:			
Weighted average rate			
Series D 6.7%	2007 to 2016	**134.0**	223.0
Series E 7.6%	2008 to 2026	**17.4**	17.4
Series F 6.5%	2007 to 2010	**133.0**	133.0
Series G 4.1%	2010	**125.0**	—
Other: 2%	2006 to 2038	**363.9**	348.0
Less: Unamortized discount		**(12.8)**	(1.8)
Payable in Other Currencies:			
Eurobonds 6.0%	2005	**348.9**	571.7
Eurobonds 6.5%	2007	**372.8**	350.1
Eurobonds 4.25%	2012	**372.8**	—
Other 4.1%	2005 to 2014	**287.0**	383.4
Capital Lease Obligations:			
United States 5.4%	2005 to 2018	**17.6**	17.0
Foreign 6.5%	2005 to 2007	**30.3**	34.8
		$2,358.3	$2,345.0
Less current portion		**(244.7)**	(176.4)
		$2,113.6	$2,168.6

Various debt agreements to which the company is a party include certain financial covenants and other restrictions, including restrictions pertaining to the ability to create property liens and enter into certain sale and leaseback transactions. The company is in compliance with all financial debt covenants.

The company has obtained the commitment of a number of commercial banks to lend money at market rates whenever needed. These committed lines of credit are also used to support the issuance of commercial paper. At 30 September 2004, the company's committed lines of credit totaled $700, maturing in December 2008. No borrowings were outstanding under these commitments at the end of 2004. Additional commitments of $49.6 are maintained by the company's foreign subsidiaries, of which $8.7 was borrowed and outstanding at 30 September 2004.

Maturities of long-term debt in each of the next five years are as follows: $593.6 in 2005, $181.5 in 2006, $518.8 in 2007, $116.5 in 2008 and $21.0 in 2009.

On 8 April 2004, the company exchanged Euro 209.3 ($252.9) of 6% Eurobonds maturing on 30 March 2005 for an issuance of Euro 218.3 ($263.9) of 4.25% Eurobonds maturing 10 April 2012. An additional Euro 81.7 ($98.7) of 4.25% Eurobonds maturing 10 April 2012 were issued for cash, which funded the repayment of outstanding commercial paper.

The 6% Eurobond maturing in 2005 is classified as long-term debt because of the company's ability to refinance the debt under its existing committed lines of credit of $700 maturing in 2008. The company's intention is to refinance this 6% Eurobond on a long-term basis via the U.S. or European public debt markets.

13. Leases

Capital leases, primarily for the right to use machinery and equipment, are included with owned plant and equipment on the balance sheet in the amount of $76.2 and $65.9 at the end of 2004 and 2003, respectively. Related amounts of accumulated depreciation are $40.9 and $33.4, respectively.

Operating leases, principally related to distribution equipment and real estate, cost the company $111.3 in 2004, $101.7 in 2003 and $102.7 in 2002.

During 2001, the company sold and leased back certain U.S. cryogenic vessel equipment resulting in proceeds of $301.9. This operating lease has a five-year term with purchase and renewal options. The company recognized a deferred gain of $134.7 on this sale-leaseback. This amount was included in other noncurrent liabilities.

At 30 September 2004, minimum payments due under leases are as follows:

	Capital Leases	Operating Leases
2005	$27.9	$ 55.7
2006	7.2	44.7
2007	4.3	22.6
2008	2.2	17.1
2009	1.0	13.2
Thereafter	7.4	75.2
	$50.0	$228.5

The present value of the above future capital lease payments is included in the liability section of the balance sheet. At the end of 2004, $29.9 was classified as current and $18.0 as long term.

14. Capital Stock

Authorized Capital Stock consists of 25 million preferred shares with a par value of $1 per share, none of which was outstanding at 30 September 2004, and 300 million shares of Common Stock with a par value of $1 per share.

In 1998, the Board of Directors adopted a shareholder rights plan under which common stockholders receive an associated right to purchase one one-thousandth (1/1,000) of a share of Series A Participating Cumulative Preferred Stock, par value $1 per share. Such rights are exercisable at a price of $345 and only in the event of certain changes or potential changes in the beneficial ownership of the company's Common Stock, which could result in a person or group owning more than 15% of the outstanding Common Stock ("Acquiring Person"). If such rights become exercisable, the rights would entitle the stockholder (other than the Acquiring Person) to purchase for the purchase price (i) that number of one one-thousandth of a share of Series A Participating Cumulative Preferred Stock or (ii) that number of shares of common stock of the surviving company (in the event of a business combination with the Acquiring Person or asset purchase of 50% or more of the company's assets by the Acquiring Person), with a value equal to two times the purchase price of the right. The rights will expire on 19 March 2008 unless earlier redeemed by the company.

15. Stock Option and Award Plans

Stock Options

Under various plans, executives, employees and outside directors receive awards of options to purchase common stock. Under all option awards, the terms are fixed at the grant date. Generally, the exercise price equals the market price of the company's stock on the date of the grant. Options under the plans generally vest incrementally over three years, and remain exercisable for ten years from the date of grant. Options issued to directors are exercisable six months after the grant date.

The company has savings-related stock option plans in which eligible employees in the United Kingdom may purchase stock at a price based on 90% of the stock price on the grant date.

The following table reflects activity under all stock option plans:

	Number of Shares	Average Price
Outstanding at 30 September 2001	23,173,207	$31.69
Granted	5,454,587	37.82
Exercised	(2,741,980)	27.51
Forfeited	(422,442)	36.56
Outstanding at 30 September 2002	25,463,372	$33.44
Granted	4,648,050	42.08
Exercised	(2,712,226)	27.01
Forfeited	(193,390)	34.58
Outstanding at 30 September 2003	27,205,806	$35.31
Granted	2,761,283	45.28
Exercised	(4,266,693)	31.01
Forfeited	(306,052)	40.23
Outstanding at 30 September 2004	**25,394,344**	**$37.21**
Exercisable at End of Year	17,533,411	
Available for Future Grant at End of Year	8,810,266	

The following tables summarize information about options outstanding and exercisable at 30 September 2004:

	Options Outstanding		
Range of Exercise Prices	Number Outstanding	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price
24.79-29.47	6,376,330	3.56	$28.23
30.01-41.69	11,990,441	5.69	37.96
41.96-52.83	7,027,573	8.36	44.07

	Options Exercisable	
Range of Exercise Prices	Number Outstanding	Weighted Average Exercise Price
24.79-29.47	6,376,330	$28.23
30.01-41.69	9,890,315	37.95
41.96-52.83	1,266,766	43.21

Other Awards

The company has granted deferred stock units identified as performance shares to executive officers and other key employees. These awards entitled the recipient to one share of common stock upon earn-out, conditional upon continued employment during a deferral period. Earn-out is based on achievement of certain management objectives during a performance period which is the one- or two-year period following the grant date. The deferral period ends either at the end of the performance period or after death, disability or retirement. The number of shares outstanding and earned for these awards was 349,834 and 500,808 share units as of 30 September 2004 and 2003, respectively.

Prior to the issuance of performance shares, the company granted deferred stock units as career share awards in 1992 through 1997 to certain executive officers and other key employees. In 2004, additional career share awards were granted. Career shares are deferred stock units payable in shares of stock after retirement. Career share awards equivalent to 484,513 and 533,206 shares of stock were outstanding at the end of 2004 and 2003, respectively.

In 2004, deferred stock units subject to a four-year deferral period were granted to selected employees. These units are subject to forfeiture if employment is terminated prior to death, disability or retirement. Deferred stock units outstanding under this program, and similar programs in prior years, were equivalent to 481,864 and 213,221 shares of stock at the end of 2004 and 2003, respectively.

In 2004, the company issued shares of restricted stock to certain executive officers. Participants are entitled to cash dividends and to vote their respective shares. The shares are subject to forfeiture until death, disability or retirement and the shares are nontransferable while subject to forfeiture. Restricted stock shares outstanding as of 30 September 2004 totaled 43,000.

Compensation cost is charged to expense over the periods during which employees perform related services. Compensation expense recognized relating to the programs granting deferred stock units and restricted stock shares was $6.9 in 2004, $3.8 in 2003 and $3.1 in 2002.

16. Earnings Per Share

The calculation of basic and diluted earnings per share (EPS) is as follows:

30 September	2004	2003	2002
Numerator			
Used in basic and diluted EPS			
Income before cumulative effect of accounting change	**$604.1**	$400.2	$525.4
Cumulative effect of accounting change	**—**	(2.9)	—
Net Income	**$604.1**	$397.3	$525.4
Denominator			
Weighted average number of common shares used in basic EPS (in millions)	**223.8**	219.7	217.2
Effect of dilutive securities (in millions):			
Employee stock options	**4.5**	3.4	4.8
Other award plans	**.6**	.5	.7
	5.1	3.9	5.5
Weighted average number of common shares and dilutive potential common shares used in diluted EPS	**228.9**	223.6	222.7
Basic EPS			
Income before cumulative effect of accounting change	**$ 2.70**	$ 1.82	$ 2.42
Cumulative effect of accounting change	—	(.01)	—
Net Income	**$ 2.70**	$ 1.81	$ 2.42
Diluted EPS			
Income before cumulative effect of accounting change	**$ 2.64**	$ 1.79	$ 2.36
Cumulative effect of accounting change	—	(.01)	—
Net Income	**$ 2.64**	$ 1.78	$ 2.36

Diluted EPS reflects the potential dilution that could occur if stock options or other contracts to issue common stock were exercised or converted into common stock. The incremental shares are included using the treasury stock method, which assumes the proceeds from exercise are used by the company to purchase common stock at the average market price during the period. The incremental shares (difference between shares assumed to be issued versus purchased), to the extent they would have been dilutive, are included in the denominator of the diluted EPS calculation.

Options on 3.4 million shares and .1 million shares of common stock were excluded from the computation of diluted earnings per share for 2003 and 2002, respectively. The exercise price of these options was greater than the average market price of the common shares for the respective years, and therefore the effect would have been antidilutive.

17. Income Taxes

The following table shows the components of the provision for income taxes:

	2004	2003	2002
Federal			
Current	**$ 23.0**	$ 19.2	$123.4
Deferred	**49.2**	47.6	20.0
	72.2	66.8	143.4
State			
Current	**8.4**	6.8	4.6
Deferred	**(11.6)**	4.4	14.8
	(3.2)	11.2	19.4
Foreign			
Current	**109.0**	94.4	47.6
Deferred	**48.6**	(25.2)	30.4
	157.6	69.2	78.0
	$226.6	$147.2	$240.8

The significant components of deferred tax assets and liabilities are as follows:

30 September	2004	2003
Gross Deferred Tax Assets		
Pension and other compensation accruals	**$ 236.9**	$ 288.2
Tax loss and tax carryforwards	**57.0**	63.9
Currency losses	**64.8**	49.5
Unremitted earnings of foreign entities	**26.5**	7.1
Reserves and accruals	**10.5**	19.6
Other	**75.0**	53.8
Valuation allowance	**(15.5)**	(20.2)
Deferred Tax Assets	**455.2**	461.9
Gross Deferred Tax Liabilities		
Plant and equipment	**922.4**	901.8
Employee benefit plans	**40.3**	45.3
Investment in partnerships	**22.0**	22.3
Unrealized gain on cost investment	**15.4**	11.0
Sale of investments	**13.2**	2.4
Other	**72.2**	18.6
Deferred Tax Liabilities	**1,085.5**	1,001.4
Net Deferred Income Tax Liability	**$ 630.3**	$ 539.5

Net current deferred tax assets of $81.1 and net noncurrent deferred tax assets of $76.6 were included in other current assets and other noncurrent assets at 30 September 2004, respectively. Net current deferred tax assets of $96.5 and net noncurrent deferred tax assets of $111.2 were included in other current assets and other noncurrent assets at 30 September 2003, respectively.

Foreign and state operating loss carryforwards as of 30 September 2004 were $62.3 and $378.3, respectively. The foreign operating losses have an unlimited carryover period. State operating loss carryforwards are available through 2024. Foreign capital loss carryforwards were $1.2 on 30 September 2004 and have an unlimited carryover period.

The valuation allowance as of 30 September 2004 primarily relates to the tax loss carryforwards referenced above. If events warrant the reversal of the $15.5 valuation allowance, it would result in a reduction of tax expense.

Major differences between the United States federal statutory rate and the effective tax rate are:

(percent of income before taxes)	**2004**	2003	2002
U.S. federal statutory rate	**35.0%**	35.0%	35.0%
State taxes, net of federal tax benefit	**1.3**	1.4	1.6
Income from equity affiliates	**(3.2)**	(3.7)	(3.2)
Foreign tax credits and refunds on dividends received from foreign affiliates	**(2.7)**	(3.4)	1.7
Export tax benefits	**(1.0)**	(1.2)	(1.0)
Other	**(2.1)**	(1.2)	(2.7)
Effective Tax Rate after Minority Interest	**27.3%**	26.9%	31.4%
Minority interest	**(.7)**	(.9)	(.7)
Effective Tax Rate	**26.6%**	26.0%	30.7%

The following table summarizes the income of U.S. and foreign operations, before taxes and minority interest:

	2004	2003	2002
Income from consolidated operations:			
United States	**$366.1**	$293.9	$463.7
Foreign	**393.4**	177.9	232.1
Income from equity affiliates	**91.9**	93.6	88.7
	$851.4	$565.4	$784.5

The company does not pay or record U.S. income taxes on the undistributed earnings of its foreign subsidiaries as long as those earnings are permanently reinvested in the companies that produced them. These cumulative undistributed earnings are included in consolidated retained earnings on the balance sheet and amounted to $1,250.4 at the end of 2004. An estimated $334.3 in U.S. income and foreign withholding taxes would be due if these earnings were remitted as dividends after payment of all deferred taxes.

18. Retirement Benefits

Defined Benefit Pension Plans

The company and certain of its subsidiaries sponsor defined benefit pension plans that cover a substantial portion of its worldwide employees. Pension benefits earned are generally based on years of service and compensation during active employment.

The cost of the company's defined benefit pension plans included the following components:

	2004	2003	2002
Service cost	**$ 73.5**	$ 59.3	$ 50.1
Interest cost	**129.2**	117.5	104.8
Expected return on plan assets	**(123.8)**	(114.9)	(112.2)
Amortization:			
Prior service cost	**3.4**	3.7	2.2
Transition	**(.1)**	(3.3)	(4.0)
Actuarial loss	**34.3**	16.3	3.4
Settlements and curtailments	**10.5**	—	1.6
Special termination benefits	**2.0**	12.7	9.8
Other	**1.1**	5.1	—
Net Periodic Pension Cost	**$ 130.1**	$ 96.4	$ 55.7

The company calculates net periodic pension costs for a given fiscal year based on assumptions developed at the end of the previous fiscal year.

The following table sets forth the weighted average assumptions used in the calculation of net periodic pension cost:

	2004	2003	2002
Discount rate	**5.8%**	6.5%	7.1%
Expected return on plan assets	**8.4%**	9.1%	9.4%
Rate of compensation increase	**4.2%**	4.7%	4.7%

The company uses a measurement date of 30 September for all plans except for plans in the United Kingdom and Belgium. These plans are measured as of 30 June.

The following table reflects the change in the projected benefit obligation (PBO) based on the measurement date:

	2004	2003
Obligation at Beginning of Year	**$2,215.1**	$1,780.1
Service cost	**73.5**	59.3
Interest cost	**129.2**	117.5
Amendments	**.9**	10.2
Actuarial (gain) loss	**(17.3)**	247.8
Special termination benefits, settlements and curtailments	**(23.1)**	12.5
Participant contributions	**7.4**	7.9
Benefits paid	**(76.0)**	(70.9)
Currency translation/other	**80.0**	50.7
Obligation at End of Year	**$2,389.7**	$2,215.1

The PBO is the actuarial present value of benefits attributable to employee service rendered to date, including the effects of estimated future salary increases.

The following table sets forth the weighted average assumptions used in the calculation of the PBO:

	2004	2003
Discount rate	**5.9%**	5.8%
Rate of compensation increase	**4.2%**	4.2%

The assets of the company's defined benefit pension plans consist primarily of equity and fixed income securities. Except where the company's equity is a component of an index fund, the plans are prohibited from holding shares of company stock.

Asset allocation targets are established based on the long-term return and volatility characteristics of the investment classes and recognize the benefit of diversification and the profiles of the plans' liabilities. The actual and target allocations at the measurement date are as follows:

Asset Category	**2004 Target Allocation**	**2004 Actual Allocation**	2003 Actual Allocation
Equity securities	**67-73%**	**68%**	71%
Debt securities	**20-30**	**27**	23
Real estate	**4-8**	**4**	5
Other	**0-5**	**1**	1
Total		**100%**	100%

The company employs a mix of active and passive investment strategies. Over a full market cycle, the total return of plan assets is expected to exceed that of an index tracking the returns achievable with a passive strategy in each asset category.

The company anticipates contributing approximately $80 to the pension plans in 2005.

The following table summarizes the change in the fair value of assets of the pension plans based on the measurement date:

	2004	2003
Beginning of Year	**$1,147.5**	$1,012.5
Actual return on plan assets	**146.9**	104.5
Company contributions	**270.8**	61.6
Participant contributions	**7.4**	7.9
Benefits paid	**(76.0)**	(70.9)
Settlements	**(24.1)**	—
Currency translation/other	**38.4**	31.9
End of Year	**$1,510.9**	$1,147.5

To the extent the expected return on plan assets varies from the actual return, an actuarial gain or loss results.

The expected return on plan asset assumption is based on an estimated weighted average of long-term returns of major asset classes. In determining asset class returns, the company takes into account long-term returns of major asset classes, historical performance of plan assets and related value added of active management, as well as the current interest rate environment. Asset allocation is determined by an asset/liability study that takes into account plan demographics, asset returns and acceptable levels of risk.

Projected benefit payments, which reflect expected future service, are as follows:

2005	$ 80.8
2006	79.9
2007	85.8
2008	89.3
2009	94.4
2010-2014	557.0

These estimated benefit payments are based on assumptions about future events. Actual benefit payments may vary significantly from these estimates.

The funded status of the pension plans (plan assets less projected benefit obligation) reconciled to the amount recognized in the balance sheet is as follows:

	2004	2003
Funded status	**$(878.8)**	$(1,067.6)
Unrecognized actuarial loss	**815.1**	866.6
Unrecognized prior service cost	**19.9**	23.0
Unrecognized net transition liability	**.6**	.7
Employer contributions for U.K. and Belgium after the measurement date	**6.2**	—
Net Amount Recognized	**$ (37.0)**	$ (177.3)

The unrecognized actuarial loss represents the actual changes in the estimated obligation and plan assets that have not yet been recognized in either the balance sheet or income statement. Actuarial gains and losses are not recognized immediately, but instead are accumulated as a part of the unrecognized net loss balance and amortized into net periodic pension cost over the average remaining service period of participating employees as certain thresholds are met.

The accumulated benefit obligation (ABO) is the actuarial present value of benefits attributed to employee service rendered to date, but does not include the effects of future pay. At a minimum, the consolidated balance sheet as of the fiscal year end should reflect an amount equal to the unfunded ABO.

The accumulated benefit obligation for all pension plans was $1,961.5 and $1,815.8 at the end of 2004 and 2003, respectively.

The following table provides information on pension plans where the ABO exceeds the value of plan assets:

	2004	2003
PBO	**$2,370.2**	$2,141.0
ABO	**1,948.3**	1,758.4
Plan assets	**1,493.2**	1,072.6

Included in the table above are several pension arrangements that are not funded because of jurisdictional practice. The ABO and PBO related to these plans for 2004 were $82.6 and $105.3, respectively.

Comprehensive income within shareholders' equity increased $59.4 (after-tax) due to the net reduction of an additional minimum liability. The reduction in the additional minimum liability resulted principally from improved plan asset positions.

In 2003, a $147.1 after-tax charge was recorded to comprehensive income within shareholders' equity due to the recognition of an additional minimum liability. The increase in the additional minimum liability resulted principally from the decline in the discount rate.

The following table summarizes the amounts recognized on the company's consolidated balance sheet:

	2004	2003
Prepaid benefit cost	**$ 4.9**	$ 11.5
Accrued benefit liability	**(453.9)**	(689.4)
Intangible asset	**21.0**	22.8
Accumulated other comprehensive income —pretax	**391.0**	477.8
Net Amount Recognized	**$ (37.0)**	$(177.3)

Defined Contribution Plans

The company maintains a nonleveraged employee stock ownership plan (ESOP) which forms part of the Air Products and Chemicals, Inc. Retirement Savings and Stock Ownership Plan (RSSOP). The ESOP was established in May of 2002. The balance of the RSSOP is a qualified defined contribution plan including a 401(k) elective deferral component. A substantial portion of U.S. employees are eligible and participate. Dividends paid on ESOP shares are treated as ordinary dividends by the company. Under existing tax law, the company may deduct dividends which are paid with respect to shares held by the plan. Shares of the company's common stock in the ESOP totaled 6,822,524 as of 30 September 2004.

The company matches a portion of the participants' contributions to the RSSOP. Matching contributions expensed to income in 2004, 2003 and 2002 were $15.0, $13.8 and $14.2, respectively.

On 5 October 2004, the company announced changes to the U.S. Retirement Savings and Stock Ownership Plan (renamed the "Retirement Savings Plan") to provide a greater portion of retirement benefits in a defined contribution program. Effective 1 January 2005, this new program provides a company core contribution based on service as well as an enhanced company matching contribution to the Retirement Savings Plan. All U.S. salaried employees hired on or after 1 November 2004 will earn benefits only under the defined contribution program starting 1 January 2005. Eligible U.S. salaried employees as of 31 October 2004 were given the opportunity to make a one-time election to choose the traditional defined benefit plan or the new defined contribution plan for future service starting 1 January 2005. All benefits earned through 31 December 2004, including those applicable to current employees electing the defined contribution program, will be determined under the traditional pension plan formula. Additionally, the company modified the early retirement provision related to future service of the traditional pension plan.

The U.K. defined benefit plan is closed to all new hires effective 1 January 2005. Eligible U.K. employees hired on or after 1 January 2005 will receive retirement benefits exclusively under a new defined contribution plan.

Other Postretirement Benefits

The company provides other postretirement benefits consisting primarily of healthcare benefits to U.S. retirees who meet age and service requirements. The healthcare benefit is a continued medical benefit until the retiree reaches age 65. Healthcare benefits are contributory, with contribution percentages adjusted periodically. The retiree medical costs are capped at a specified dollar amount with the retiree contributing the remainder.

The cost of the company's other postretirement benefit plans included the following components:

	2004	2003	2002
Service cost	**$4.7**	$4.2	$ 4.4
Interest cost	**5.6**	5.8	4.7
Amortization:			
Prior service cost	**(.9)**	(.7)	(.2)
Actuarial loss (gain)	**.5**	—	(.7)
Settlements and curtailments	**—**	—	(2.1)
Special termination benefits	**—**	.4	1.5
Net Periodic Benefit Cost	**$9.9**	$9.7	$ 7.6

The company calculates net periodic benefit costs for a given fiscal year based on assumptions developed at the end of the previous fiscal year. The discount rate assumption used in the calculation of net periodic benefit cost for 2004, 2003 and 2002 was 6.0%, 6.8% and 7.5%, respectively.

The company measures the other postretirement benefits as of 30 September. The following table reflects the change in the accumulated postretirement benefit obligation:

	2004	2003
Obligation at Beginning of Year	**$ 93.3**	$76.8
Service cost	**4.7**	4.2
Interest cost	**5.6**	5.8
Amendments	**(10.8)**	—
Actuarial loss	**6.7**	14.7
Special termination benefits	**—**	.4
Benefits paid	**(9.3)**	(8.6)
Obligation at End of Year	**$ 90.2**	$93.3

The discount rate assumption used in the calculation of the accumulated postretirement benefit obligation at the end of 2004 and 2003 was 6.0%.

The assumed healthcare trend rates are as follows:

	2004	2003
Healthcare trend rate	**9.5%**	8.0%
Ultimate trend rate	**5.0%**	5.0%
Year the ultimate trend rate is reached	**2008**	2006

The effect of a change in the healthcare trend rate is slightly tempered by a cap on the average retiree medical cost. The impact of a one percent point change in the assumed healthcare cost trend rate on periodic benefit cost and the obligation is not material.

A reconciliation of the benefit obligation to the amounts recognized in the consolidated balance sheet as a liability is as follows:

	2004	2003
Obligation at end of year	**$(90.2)**	$(93.3)
Unrecognized actuarial loss	**20.4**	14.2
Unrecognized prior service cost	**(13.1)**	(3.2)
Net Amount Recognized	**$(82.9)**	$(82.3)

Projected benefit payments are as follows:

2005	$ 8.9
2006	9.6
2007	10.4
2008	10.6
2009	10.5
2010-2014	51.0

These estimated benefit payments are based on assumptions about future events. Actual benefit payments may vary significantly from these estimates.

On 5 October 2004, the company announced changes to its retiree medical benefits. Employees will not be eligible to receive retiree medical benefits if they are under the age of 40 as of 31 December 2004, or join the company on or after 1 November 2004. The elimination of the retiree medical benefit does not affect the disclosed obligation as the attribution period does not begin until age 45.

The retiree medical cost cap was reduced for all eligible participants who retire on or after 1 January 2005. The reduction in the retiree medical cost cap, as well as enhanced retiree contributions, resulted in a prior service cost gain which will be amortized into expense over the employees' average remaining service period.

19. Commitments and Contingencies

In the normal course of business the company has commitments, lawsuits, contingent liabilities and claims. The company is also party to certain guarantee and warranty agreements. However, the company does not expect that any sum it may have to pay in connection with these matters, or the matters described below, will have a materially adverse effect on its consolidated financial condition, liquidity or results of operations.

Guarantees and Warranties

The company is a party to certain guarantee agreements, including a residual value guarantee, debt guarantees of equity affiliates and equity support agreements. These guarantees are contingent commitments that are related to activities of the company's primary businesses.

In September 2001, the company entered into an operating lease of U.S. cryogenic vessel equipment, which included a residual value guarantee not to exceed $256. The guarantee extends to September 2006.

The company has guaranteed repayment of some borrowings of certain foreign equity affiliates. At 30 September 2004, these guarantees have terms primarily in the range of one to seven years, with maximum potential payments of $18.

The company has entered into an equity support agreement related to the financing of an air separation facility constructed in Trinidad for a venture in which the company, through equity affiliates, owns 50%. The maximum potential payments, under a joint and several guarantee with the partner, are $72 upon commencement of operations. The maximum exposure under the equity support agreement declines over time as an underlying loan balance is amortized. Additionally, the company and its partner provided guarantees of certain obligations related to the normal operations of this facility. The maximum potential payments, under the joint and several operations guarantees, are $32. The total combined maximum potential payments, under the joint and several equity support agreement and the operations guarantees, are $104. The term of these guarantees is related to the underlying twenty-year customer gas supply contract from the facility.

An equity support agreement was entered into related to the financing of a cogeneration project. At 30 September 2004, the remaining term of this guarantee is 3 months, with maximum potential payments of $15. A partner in this project has agreed to fund approximately half of any required equity contribution.

The company has not accrued any amounts related to these guarantees. To date, no equity contributions or payments have been required since the inception of these guarantees. The fair value of the above guarantees totals approximately $7.

The company, in the normal course of business operations, has issued product warranties in its Equipment segment. Also, contracts often contain standard terms and conditions which typically include a warranty and indemnification to the buyer that the goods and services purchased do not infringe on third-party intellectual property rights. The provision for estimated future costs relating to warranties is not material to the consolidated results of operations.

Environmental

The company has accrued for certain environmental investigatory, external legal costs and noncapital remediation costs consistent with the policy set forth in Note 1. The potential exposure for such costs is estimated to range from $9 to a reasonably possible upper exposure of $19. The consolidated balance sheet at 30 September 2004 includes an accrual of $14.3.

Litigation

In July 2003, Honeywell International, Inc. and GEM Microelectronic Materials, LLC filed suit against the company alleging breach of contract resulting from the termination of a Strategic Alliance Agreement dated 1 October 1998 ("SAA"). On 6 August 2004, the Delaware Chancery Court decided that the company must pay damages in the amount of $8.1. This amount was recorded against previously established accruals. Honeywell has filed a notice of appeal of the Court's decision, and the company has filed a cross-appeal.

Other Commitments and Contingencies

The company has entered into put option agreements with certain affiliated companies. In 1999, the company made an investment in INOX, an Indian industrial gases company. As part of this transaction, put options were issued which give other shareholders the right to require the company to purchase shares of INOX (approximately 5.1 million) at a predefined exercise price. The option period began January 2004 and extends through January 2006. The option price during the first year is 570 Rupees per share and during the second year 630 Rupees per share. The U.S. dollar price of purchasing all 5.1 million shares in 2004 based on current exchange rates would be approximately $63. In 2002, the company entered into a put option agreement as part of the San Fu acquisition as discussed in Note 4.

At the end of 2004, the company had purchase commitments to spend approximately $208 for additional plant and equipment.

A long-term supplier of sulfuric acid, used in the production of dinitrotoluene (DNT), emerged from Chapter 11 bankruptcy protection in June 2003. To facilitate the supplier's ability to emerge from bankruptcy and to continue supplying product, the company agreed to participate in the supplier's financing and has continued to provide additional financing. Total loans to the supplier at 30 September 2004 were $55.3. If the supplier does not continue to operate, the sales and profitability of the Chemicals segment could be materially impacted on an annual basis because of the company's inability to supply all of its customers' base requirements. The company does not expect a material loss related to this supplier.

20. Supplemental Information

Payables and Accrued Liabilities

30 September	2004	2003
Trade creditors, payables and accrued expenses	**$ 707.0**	$ 547.3
Accrued payroll and employee benefits	**154.3**	115.4
Customer advances	**130.8**	62.5
Derivative instruments	**107.4**	8.5
Pension benefits	**74.7**	189.8
Accrued interest expense	**38.5**	40.3
Outstanding checks payable in excess of certain cash balances	**30.0**	35.9
Miscellaneous	**76.9**	123.8
	$1,319.6	$1,123.5

Short-Term Borrowings

30 September	2004	2003
Bank obligations	**$35.4**	$ 73.5
Commercial paper	—	92.2
	$35.4	$165.7

The weighted average interest rate of short-term borrowings outstanding as of 30 September 2004 and 2003 was 3.6% and 2.1%, respectively.

Deferred Income and Other Noncurrent Liabilities

30 September	2004	2003
Deferred gain on sale-leaseback of U.S. cryogenic vessel equipment	**$134.7**	$ 134.7
Pension benefits	**379.2**	515.1
Postretirement benefits	**74.0**	71.6
Derivative instruments	**17.2**	76.3
Miscellaneous	**215.2**	208.2
	$820.3	$1,005.9

Accumulated Other Comprehensive Income (Loss)

30 September	2004	2003
(Loss) gain on derivatives	**$ (2.8)**	$ (2.2)
Unrealized gain on investment	**27.4**	19.7
Minimum pension liability adjustment	**(258.1)**	(317.5)
Cumulative translation adjustments	**(207.2)**	(267.2)
	$(440.7)	$(567.2)

Other (Income) Expense, Net

	2004	2003	2002
Technology and royalty income	**$(16.3)**	$(15.1)	$(13.4)
Interest income	**(3.9)**	(3.8)	(4.9)
Foreign exchange	**(1.7)**	(.8)	(2.0)
Gain on sale of assets and investments	**(7.5)**	(5.0)	(9.6)
Amortization of intangibles	**13.6**	10.3	3.8
Insurance settlements	**(6.6)**	(3.6)	(2.7)
Miscellaneous	**(5.5)**	(8.5)	(8.3)
	$(27.9)	$(26.5)	$(37.1)

Summary by Quarter

These tables summarize the unaudited results of operations for each quarter of 2004 and 2003:

		First	Second	Third	Fourth	Total
2004						
Sales		**$1,684.9**	**$1,856.5**	**$1,892.5**	**$1,977.5**	**$7,411.4**
Operating income		**198.8**	**210.1**	**233.7**	**237.0**	**879.6**
Net income		**131.8**	**141.2**	**163.0**	**168.1**	**604.1**
Basic earnings per common share		**.59**	**.63**	**.73**	**.75**	**2.70**
Diluted earnings per common share		**.58**	**.62**	**.71**	**.73**	**2.64**
Dividends per common share		**.23**	**.23**	**.29**	**.29**	**1.04**
Market price per common share:	high	**53.07**	**55.40**	**53.20**	**55.76**	
	low	**44.12**	**46.71**	**47.49**	**48.42**	

		First	Second	Third	Fourth	Total
2003						
Sales		$1,447.0	$1,578.1	$1,629.9	$1,642.3	$6,297.3
Operating income		194.0	176.3	37.3**(A)**	186.9	594.5
Income before cumulative effect of accounting change		128.7	113.6	26.6**(A)**	131.3	400.2
Net income		125.8	113.6	26.6**(A)**	131.3	397.3
Basic earnings per share						
Income before cumulative effect of accounting change		.59	.52	.12**(A)**	.59	1.82
Net Income		.57	.52	.12**(A)**	.59	1.81
Diluted earnings per share						
Income before cumulative effect of accounting change		.58	.51	.12**(A)**	.58	1.79
Net Income		.56	.51	.12**(A)**	.58	1.78
Dividends per common share		.21	.21	.23	.23	.88
Market price per common share:	high	46.50	44.20	44.25	48.78	
	low	40.34	36.97	40.72	40.50	

(A) Included an expense of $152.7 ($96.6 after-tax, or $.43 per share) for the 2003 global cost reduction plan.

21. Business Segment and Geographic Information

The company manages its operations, assesses performance, and reports results by three business segments, which are organized based on differences in products. The company's three business segments consist of Gases, Chemicals and Equipment.

Gases Segment

The company's Gases segment includes its industrial gases, electronic chemicals business, healthcare, power generation and flue gas treatment businesses.

The company is a leading international supplier of industrial and specialty gas products. Principal products of the industrial gases business are oxygen, nitrogen, argon, hydrogen, carbon monoxide, carbon dioxide, synthesis gas and helium. The largest market segments are chemical processing, electronics, refining, metal production, food processing and medical gases. The company has its strongest industrial gas market positions in the United States and Europe.

The global healthcare business of the company is directed at two main markets: institutional and homecare. The institutional market uses medical gases in hospitals, clinics and nursing homes, as well as helium for use in magnetic resonance imaging. The homecare business involves the delivery of respiratory therapy services, home medical equipment and infusion services to patients in their homes in Europe, South America and the eastern half of the United States.

The company constructed, operates and has approximately a 50% interest in power generation facilities in California, Rotterdam and Thailand. The company also constructed, operates and has a 50% interest in a flue gas treatment facility in Indiana.

Chemicals Segment

The company's Chemicals segment consists of businesses organized around two divisions: Performance Materials and Chemical Intermediates.

Principal products of Performance Materials are emulsions, specialty additives, polyurethane additives and epoxy additives. Principal Chemical Intermediates are amines and polyurethane intermediates. The end markets for the company's chemical products are extensive, including adhesive, paper, building products, agriculture and furniture. Principal geographic markets for the company's chemical products are North America, Europe, Asia, and Brazil.

Equipment Segment

The Equipment segment designs and manufactures cryogenic and gas processing equipment for air separation, gas processing, natural gas liquefaction and hydrogen purification. The segment also designs and builds cryogenic transportation containers for liquid helium and systems for recovering gases using membrane technology. Equipment is sold worldwide to companies involved in chemical and petrochemical manufacturing, oil and gas recovery and processing, power generation and steel and primary metal production. Equipment is also manufactured for the company's industrial gas business. Another important market, particularly for air separation equipment, is the company's international industrial gas joint ventures.

Customers

The company has a large number of customers, and no single customer accounts for a significant portion of annual sales.

Accounting Policies

The accounting policies of the segments are the same as those described in Note 1. The company evaluates the performance of segments based upon reported segment operating income. Operating income of the business segments includes general corporate expenses. Corporate expenses not allocated to the segments, included in all other, are primarily long-term research and development. Intersegment sales are not material and are recorded at selling prices that approximate market prices. Equipment manufactured for the company's industrial gas business is generally transferred at cost and not reflected as an intersegment sale. Corporate assets not allocated to the segments are included in all other. These assets include cash and cash items, unallocated administrative facilities and certain deferred items. Long-lived assets include investment in net assets of and advances to equity affiliates, net plant and equipment, goodwill and intangibles.

Notes to the Consolidated Financial Statements continued

Business segment information is shown below:

	Gases	Chemicals	Equipment	Segment Totals	All Other	Consolidated Totals
2004						
Revenues from external customers	**$5,221.8**	**$1,828.9**	**$360.7**	**$7,411.4**	**$ —**	**$ 7,411.4**
Operating income	**800.5**	**116.0**	**10.8**	**927.3**	**(47.7)**	**879.6**
Depreciation and amortization	**599.4**	**104.5**	**9.5**	**713.4**	**1.5**	**714.9**
Equity affiliates' income	**78.2**	**14.6**	**—**	**92.8**	**—**	**92.8**
Segment assets:						
Identifiable assets	**7,339.8**	**1,402.5**	**226.4**	**8,968.7**	**441.9**	**9,410.6**
Investment in and advances to equity affiliates	**572.1**	**57.6**	**.1**	**629.8**	**—**	**629.8**
Total segment assets	**7,911.9**	**1,460.1**	**226.5**	**9,598.5**	**441.9**	**10,040.4**
Expenditures for long-lived assets	**656.1**	**95.9**	**5.5**	**757.5**	**66.1**	**823.6**
2003						
Revenues from external customers	$4,438.3	$1,591.2	$267.8	$6,297.3	$ —	$ 6,297.3
Operating income	574.8	67.1	4.2	646.1	(51.6)	594.5
Depreciation and amortization	532.7	109.7	6.4	648.8	6.0	654.8
Equity affiliates' income	68.3	10.8	.2	79.3	15.1	94.4
Segment assets:						
Identifiable assets	7,097.3	1,478.1	171.4	8,746.8	173.2	8,920.0
Investment in and advances to equity affiliates	502.5	50.0	1.0	553.5	—	553.5
Total segment assets	7,599.8	1,528.1	172.4	9,300.3	173.2	9,473.5
Expenditures for long-lived assets	946.6	82.0	5.1	1,033.7	91.0	1,124.7
2002						
Revenues from external customers	$3,673.9	$1,451.7	$275.6	$5,401.2	$ —	$ 5,401.2
Operating income	600.2	172.5	20.7	793.4	(32.3)	761.1
Depreciation and amortization	473.3	109.0	5.4	587.7	3.4	591.1
Equity affiliates' income	75.7	11.7	2.6	90.0	—	90.0
Gain on sale of U.S. packaged gas business	55.7	—	—	55.7	—	55.7
Segment assets:						
Identifiable assets	6,045.0	1,400.2	184.4	7,629.6	381.2	8,010.8
Investment in and advances to equity affiliates	427.9	53.9	2.4	484.2	—	484.2
Total segment assets	6,472.9	1,454.1	186.8	8,113.8	381.2	8,495.0
Expenditures for long-lived assets	625.5	49.4	6.4	681.3	108.0	789.3

Geographic information is presented below:

	2004	2003	2002
Revenues from External Customers			
United States	**$4,224.3**	$3,630.6	$3,301.9
Canada	**73.8**	96.1	108.4
Total North America	**4,298.1**	3,726.7	3,410.3
United Kingdom	**659.7**	499.3	459.1
Spain	**437.7**	365.8	332.2
Other Europe	**1,082.7**	925.0	706.6
Total Europe	**2,180.1**	1,790.1	1,497.9
Asia	**762.5**	648.4	377.1
Latin America	**170.7**	131.6	115.6
All other	**—**	.5	.3
Total	**$7,411.4**	$6,297.3	$5,401.2
Long-Lived Assets			
United States	**$3,442.6**	$3,529.8	$3,187.8
Canada	**60.1**	52.3	78.1
Total North America	**3,502.7**	3,582.1	3,265.9
United Kingdom	**450.1**	432.2	475.5
Spain	**518.2**	491.0	405.8
Other Europe	**1,337.5**	1,180.3	987.7
Total Europe	**2,305.8**	2,103.5	1,869.0
Asia	**1,227.9**	1,084.0	993.1
Latin America	**183.1**	195.3	202.2
All other	**44.4**	55.6	33.8
Total	**$7,263.9**	$7,020.5	$6,364.0

Note: Geographic information is based on country of origin. Included in United States revenues are export sales to unconsolidated customers of $496.4 in 2004, $497.2 in 2003 and $532.7 in 2002. The Other Europe segment operates principally in Belgium, France, Germany and the Netherlands. The Asia segment operates principally in China, Japan, Korea and Taiwan.

Five-Year Summary of Selected Financial Data

(millions of dollars, except per share)		**2004**	2003	2002	2001	2000
Operating Results						
Sales		**$ 7,411**	$ 6,297	$ 5,401	$ 5,858	$ 5,610
Cost of sales		**5,464**	4,613	3,816	4,216	3,947
Selling and administrative		**969**	843	718	711	702
Research and development		**127**	121	120	122	123
Global cost reduction plans, net		**—**	153	23	107	55
Operating income		**880**	595	761	734	818
Equity affiliates' income		**93**	94	90	93	100
Interest expense		**121**	124	122	191	197
Income tax provision (benefit)		**227**	147	241	191	(14)
Net income		**604**	397	525	466	124
Basic earnings per common share		**2.70**	1.81	2.42	2.17	.58
Diluted earnings per common share		**2.64**	1.78	2.36	2.12	.57
Year-End Financial Position						
Plant and equipment, at cost		**$12,202**	$11,723	$10,880	$10,227	$10,311
Total assets		**10,040**	9,474	8,495	8,084	8,271
Working capital		**711**	528	653	332	430
Total debt[(A)]		**2,394**	2,511	2,385	2,478	3,045
Shareholders' equity		**4,444**	3,783	3,460	3,106	2,821
Financial Ratios						
Return on sales		**8.2%**	6.3%	9.7%	7.9%	2.2%
Return on average shareholders' equity		**14.7%**	10.9%	15.9%	15.8%	4.3%
Total debt to sum of total debt, shareholders' equity and minority interest[(A)]		**34.2%**	38.7%	39.6%	43.5%	50.9%
Cash provided by operations to average total debt		**43.1%**	42.8%	46.0%	37.8%	37.5%
Interest coverage ratio		**7.7**	5.4	6.9	4.3	1.5
Other Data						
For the year:	Depreciation and amortization	**$ 715**	$ 655	$ 591	$ 598	$ 594
	Capital expenditures[(B)]	**816**	1,171	806	806	973
	Cash dividends per common share	**1.04**	.88	.82	.78	.74
	Market price range per common share	**56-44**	49-36	54-36	49-30	39-23
	Weighted average common shares outstanding (in millions)	**224**	220	217	215	213
	Weighted average common shares outstanding assuming dilution (in millions)	**229**	224	223	219	216
At year end:	Book value per common share	**19.68**	17.08	15.83	14.41	13.17
	Shareholders	**10,700**	11,100	11,100	11,200	11,400
	Employees[(C)]	**19,900**	19,000	17,500	18,000	17,800

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

(B) Capital expenditures include additions to plant and equipment, investment in and advances to unconsolidated affiliates, acquisitions (including long-term debt assumed in acquisitions) and capital lease additions.

(C) Includes full- and part-time employees.

Exhibit 21

SUBSIDIARIES OF AIR PRODUCTS AND CHEMICALS, INC.

The following is a list of the Company's subsidiaries, all of which are wholly owned as of 30 September 2004, except for certain subsidiaries of the Registrant which do not in the aggregate constitute a significant subsidiary as that term is defined in Rule 12b-2 under the Securities Exchange Act of 1934.

UNITED STATES

All companies are incorporated in the State of Delaware unless otherwise indicated.

Registrant — Air Products and Chemicals, Inc.
Air Products HyCal Company, L.P. (California)
AHS Acquisition (I), Inc. (Illinois)
AHS Seating and Mobility, Inc.
Air Products (Didcot), Inc.
Air Products (Middle East), Inc.
Air Products (Rozenburg), Inc.
Air Products Asia, Inc.
Air Products Caribbean Holdings, Inc.
Air Products China, Inc.
Air Products Electronics, LLC
Air Products Energy Holdings, Inc.
Air Products Europe, Inc.
Air Products Helium, Inc.
Air Products Hydrogen Company, Inc.
Air Products International Corporation
Air Products L.P.
Air Products LLC
Air Products Manufacturing Corporation
Air Products Polymers Holdings, L.P.
Air Products Polymers L.P.
Air Products Powders, Inc.
Air Products Trinidad Services, Inc.
American Homecare Supply Georgia, Inc. (Georgia)
American Homecare Supply IV Georgia, Inc. (Georgia)
American Homecare Supply Mid-Atlantic, LLC
American Homecare Supply New York, LLC
American Homecare Supply West Virginia, Inc.
American Homecare Supply, LLC
AmHealth Group, Inc.
APCI (U.K.), Inc.
C.O.P.D. Services, Inc. (New Jersey)
Collins I.V. Care, Inc. (Connecticut)
Denmark's, Inc. (Massachusetts)
DependiCare Home Health, Inc. (Illinois)
Electron Transfer Technologies, Inc. (New Jersey)
Genox Homecare, Inc. (Connecticut)
i.e. Med Systems, Inc. (Pennsylvania)
KIG America Corporation
Laurel Mountain Medical Supply, Inc. (Pennsylvania)
Middletown Oxygen Company, Inc.
Mosso's Medical Supply Company, Inc. (Pennsylvania)
Prodair Corporation
Pure Air Holdings Corp.
Pure Air on the Lake (I), Inc.
Pure Air on the Lake (IV), Inc.
SCWC Corp.
SR Manufacturers, Inc.
SRPF, Inc.
Stockton CoGen (I), Inc.

ARGENTINA

Terapias Medicas Domiciliarias, S.A.

AUSTRIA

Air Products Gesellschaft mbH

BELGIUM

Air Products S.A.
Air Products Management S.A.
Medigaz, S.A.
Proxigaz, S.A.

BERMUDA

Asia Industrial Gas Company Ltd.

BRAZIL

Air Products Brasil Ltda. (The organization of this affiliate more closely resembles a partnership with limited liability than a corporation.)

CANADA

Air Products Canada Limited
Welders Choice Welding Supplies Inc.

CHINA

Air Products and Chemicals (China) Investment Co. Ltd.
Air Products and Chemicals (Fujian) Co., Ltd.
Air Products and Chemicals (Ningbo) Co., Ltd.
Air Products and Chemicals (Shanghai) Co. Ltd.
Air Products and Chemicals (Tangshan) Co., Ltd.
Air Products and Chemicals (Zibo) Co., Ltd.
Air Products (Nanjing) Co., Ltd.
Air Products (Shanghai) Co., Ltd.
Beijing AP BAIF Gas Industry Co., Ltd.
Chun Wang Industrial Gases (Shenzhen) Ltd.
Chun Wang Industrial Gases (H.K.) Limited
Eastern Air Products (Shanghai) Co. Ltd.
High-Tech Gases (Beijing) Co., Ltd.
Northern Air Products (Tianjin) Co., Ltd.
Permea China, Ltd.
Southern Air Products (Guangzhou) Ltd.
Southern Air Products (Zhuhai) Ltd.

CZECH REPUBLIC

Air Products spol s.r.o.

FRANCE

Rhone Alpes Sante S.a.r.l.
Air Prod 99 S.A.S.
Air Products Medical S.a.r.l.
Air Products SAS
Prodair et Cie S.C.S.
Prodair S.A.S.
Henno Oxygene S.A.S.
Hold'Air SAS
Soprogaz SNC
Sam BFC S.a.r.l.
Domisante SAS
Sampe S.a.r.l.

GERMANY

Air Products GmbH
Air Products Home Care GmbH
Air Products Medical GmbH
Air Products Polymers GmbH & Co KG
Air Products Polymers Verwaltungs GmbH
Air Products Powders GmbH

INDONESIA

PT Air Products Indonesia

IRELAND

Air Products Ireland Limited
Air Products Medical Ireland Limited

ITALY

Air Products Italia S.r.l.
Anchor Italiana S.p.A.
APP Holding S.R.L.

JAPAN

Air Products Japan, Inc.

KOREA

Air Products Korea Inc.
Air Products ACT Korea Limited
Air Products and Chemicals Korea Ltd.
Schumacher Korea Limited
Han Mi Specialty Gases Co., Ltd.
Hanyang Technology Co., Ltd.
Korea Industrial Gases, Limited
Korea Specialty Gases Ltd.

MALAYSIA

Air Products STB Sdn Bhd

MEXICO

Air Products and Chemicals de Mexico, S.A. de C.V.

THE NETHERLANDS

Air Products Amsterdam B.V.
Air Products Chemicals Europe B.V.
Air Products Holdings B.V.
Air Products Investments B.V.
Air Products Leasing B.V.
Air Products Nederland B.V.
Air Products (Pernis) B.V.
Air Products Utilities B.V.
Air Products Polymers B.V.

NORWAY

Air Products A/S

PERU

Air Products Peru S.A.C.

POLAND

Air Products Gazy Sp. z o.o.
Air Products Polska Sp. z o.o.

RUSSIA

Air Products O.O.O.

SINGAPORE

Sanwa Chemical Singapore Pte. Ltd.
Air Products Singapore Pte. Ltd.

SLOVAKIA

Air Products Slovakia s.r.o.

SPAIN

Air Products Iberica, S.L.
Air Products Investments Espana, S.L.
Air Products Ventas y Servicios, S.A.
Andaluza de Gases, S.A.
Arlasa, S.A.
Carb-IQA de Tarragona, S.L.
Distribuidora Castellana de Gases, S.A.
Distribuidora de Gases Iruna, S.L.
Fir-Salus, s.a.
Gases Industriais, S.A.
Gases Medicinales e Industriales, S.A.
Iberica del Carbonico, S.A.
Matgas 2000 A.I.E.
Oxicar, S.A.
Oxigenol, S.A.
Oximeca, S.A.
Residencia Geriatrica Iris Quatrecamins, S.L.
Sociedad Espanola de Carburos Metalicos S.A.

SWITZERLAND

Air Products Switzerland Sarl

TAIWAN

Airpro Gases Co., Ltd.
San Fu Gas Co., Ltd.
Air Products Electronics Taiwan Limited
Air Products Taiwan Co., Ltd.
Air Products Taiwan Holdings, LLC

TRINIDAD AND TOBAGO

Air Products Unlimited

UNITED ARAB EMIRATES

Air Products Middle East FZE

UNITED KINGDOM

Air Products (BR) Limited
Air Products (Chemicals) Public Limited Company
Air Products Cryogenic Services Limited
Air Products Eastern Limited
Air Products (GB) Limited
Air Products Group Limited
Air Products Leasing (UK) Limited
Air Products PLC
Air Products (UK) Limited
Air Products Yanbu Limited
Anchor Chemical (UK) Limited
Cryomed Limited
Cryosurgery Clinic Limited
On-Site Engineering Services Limited
Oxygen Therapy Company Limited
Prodair Services Limited
Rimer-Alco International Limited
Unoco (UK) Limited
Air Products (Chemicals) Teesside Limited

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors of Air Products and Chemicals, Inc.:

We consent to the incorporation by reference in the Registration Statements (File Nos. 33-2068, 33-65117, 333-21145, 333-45239, 333-71405, 333-18955, 333-73105, 333-54224, 333-81358, 333-56292, 333-60147, 333-95317, 333-31578, 333-100210, 333-113882, 333-113881, 333-11793, and 333-103809) on Form S-8 and in the Registration Statements (333-11792 and 333-33851) on Form S-3 of Air Products and Chemicals, Inc. and subsidiaries of our reports dated 27 October 2004, with respect to the related consolidated balance sheets of Air Products and Chemicals, Inc. as of 30 September 2004 and 2003 and the related consolidated statements of income, cash flows, and shareholders' equity for each of the years in the three year period then ended, and the related financial statement schedule, which reports appear in the 30 September 2004 annual report on Form 10-K of Air Products and Chemicals, Inc.

KPMG LLP
Philadelphia, Pennsylvania
10 December 2004

Exhibit 24

POWER OF ATTORNEY

Know All Men By These Presents, that each person whose signature appears below constitutes and appoints John P. Jones III or Paul E. Huck or W. Douglas Brown, acting severally, his/her true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him/her and in his/her name, place and stead, in any and all capacities, to sign the Form 10-K Annual Report for the fiscal year ended 30 September 2004 and all amendments thereto and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he/she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities and Exchange Act of 1934, this Power of Attorney has been signed below by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Mario L. Baeza Mario L. Baeza	Director	18 November 2004
/s/ Michael J. Donahue Michael J. Donahue	Director	18 November 2004
/s/ Ursula F. Fairbairn Ursula F. Fairbairn	Director	18 November 2004
/s/ W. Douglas Ford W. Douglas Ford	Director	18 November 2004
/s/ Edward E. Hagenlocker Edward E. Hagenlocker	Director	18 November 2004
/s/ James F. Hardymon James F. Hardymon	Director	18 November 2004
/s/ John P. Jones III John P. Jones III	Director	18 November 2004

Signature	Title	Date
/s/ Terrence Murray Terrence Murray	Director	18 November 2004
/s/ Lawrence S. Smith Lawrence S. Smith	Director	18 November 2004
/s/ Lawrason D. Thomas Lawrason D. Thomas	Director	18 November 2004

Exhibit 31.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER

I, John P. Jones III, certify that:

1. I have reviewed this Annual Report on Form 10-K of Air Products and Chemicals, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:

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

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

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

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

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

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

Date: 13 December 2004

/s/ John P. Jones III

John P. Jones III
Chairman, President, and
Chief Executive Officer

Exhibit 31.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER

I, Paul E. Huck, certify that:

1. I have reviewed this Annual Report on Form 10-K of Air Products and Chemicals, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant’s other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:

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

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

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

5. The registrant’s other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):

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

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

Date: 13 December 2004

/s/ Paul E. Huck

Paul E. Huck
Vice President and
Chief Financial Officer

Exhibit 32

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

In connection with the Annual Report on Form 10-K of Air Products and Chemicals, Inc. (the "Company") for the year ending September 30, 2004, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), we, John P. Jones III, Chairman, President, and Chief Executive Officer of the Company, and Paul E. Huck, Vice President and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: 13 December 2004

/s/ John P. Jones III

John P. Jones III
Chairman, President and
Chief Executive Officer

/s/ Paul E. Huck

Paul E. Huck
Vice President and
Chief Financial Officer