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SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549  
FORM 10-K

(Mark One)  ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE  
SECURITIES EXCHANGE ACT OF 1934 [NO FEE REQUIRED] FOR THE FISCAL  
YEAR ENDED SEPTEMBER 30, 1997  
OR  
 TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF  
THE SECURITIES EXCHANGE ACT OF 1934 [NO FEE REQUIRED]  
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 23-1274455  
(State or other jurisdiction of (IRS Employer Identification No.)  
incorporation or organization)

7201 Hamilton Boulevard  
Allentown, Pennsylvania 18195-1501  
(Address of principal executive offices) (Zip Code)

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

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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
8-3/4% Debentures Due 2021	New York

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Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES  NO

Indicate by check mark 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.

The aggregate market value of the voting stock held by non-affiliates of the registrant on November 3, 1997 was \$9.1 billion. For purposes of the foregoing calculation (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 Flexible Employee Benefit Trust, described under Item 12 of this Report, is deemed a non-affiliate.

The number of shares of Common Stock outstanding as of November 28, 1997 was 118,196,876.

DOCUMENTS INCORPORATED BY REFERENCE

Annual Report to Shareholders for the fiscal year ended September 30, 1997. With the exception of those portions which 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 January 22, 1998 . . . Part III.

## FORWARD LOOKING STATEMENTS

The forward-looking statements contained in this document are based on current expectations regarding important risk factors. Actual results may differ materially from those expressed. Important risk factors and uncertainties include the impact of worldwide economic growth, pricing, and other factors resulting from fluctuations in foreign currencies, the impact of competitive products and pricing, continued success of productivity programs, and the impact of tax and other legislation and other regulations in the jurisdictions in which the Company and its affiliates operate.

## TABLE OF CONTENTS

	Page
PART I	
ITEM 1. Business .....	1
Industrial Gases.....	1
Chemicals.....	2
Polymer Chemicals.....	2
Performance Chemicals.....	3
Chemical Intermediates.....	3
Equipment and Services.....	4
Equipment.....	4
Power Generation.....	4
Pure Air.....	4
General.....	4
Foreign Operations.....	4
Technology Development.....	5
Raw Materials and Energy.....	6
Environmental Controls.....	6
Competition.....	6
Insurance.....	7
American Ref-Fuel.....	8
Employees.....	8
Executive Officers of the Company.....	9
ITEM 2. Properties .....	9
Industrial Gases.....	9
Chemicals.....	10
Equipment and Services.....	10
ITEM 3. Legal Proceedings .....	10
ITEM 4. Submission of Matters to a Vote of Security Holders .....	10
PART II	
ITEM 5. Market for the Company's Common Stock and Related Stockholders Matters.....	11
ITEM 6. Selected Financial Data .....	11
ITEM 7. Management's Discussion and Analysis of Financial Condition and Results of Operations .....	11
ITEM 7a. Quantitative and Qualitative Disclosures about Market Risk .....	11
ITEM 8. Financial Statements .....	11
ITEM 9. Disagreements on Accounting and Financial Disclosure .....	11
PART III	
ITEM 10. Directors and Executive Officers of the Company .....	11
ITEM 11. Executive Compensation .....	11
ITEM 12. Security Ownership of Certain Beneficial Owners and Management ...	12
ITEM 13. Certain Relationships and Related Transactions .....	12
PART I	
ITEM 14. Exhibits, Financial Statement Schedules and Reports on Form 8-K ..	12

## 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 industrial gases business segment recovers and distributes industrial gases such as oxygen, nitrogen, argon and hydrogen and a variety of medical and specialty gases. The chemicals business segment produces and markets polymer chemicals, performance chemicals and chemical intermediates. The equipment and services business segment supplies cryogenic and other process equipment and related engineering services and includes the Company's power generation business and flue gas treatment business.

Financial information concerning the Company's business segments appears in Note 20 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 1997 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.

## INDUSTRIAL 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 are manufactured or blended by the Company or purchased for resale.

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

"Tonnage" or "on-site" supply -- For large volume or "tonnage" users of industrial gases, a plant is built adjacent to 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 contracts having terms in excess of three years. In at least six areas -- the Houston (Texas) Ship Channel including the Port Arthur, Texas, area; "Silicon Valley", California; Los Angeles, California; Phoenix, Arizona; Central Louisiana; and Rotterdam, The Netherlands -- 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 Korea, Thailand, Malaysia and Taiwan.

Merchant 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 merchant 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. Increasingly, some customers are being supplied by small on-site generators using noncryogenic technology based on adsorption and membrane technology. Merchant customers' contract terms normally are from three to five years. Merchant gases and various specialty gases are also delivered in cylinders, dewars and lecture bottle sizes.

Oxygen, nitrogen, argon and hydrogen sold to merchant customers are usually recovered at large "stand-alone" facilities located near industrial areas or high-tech centers, or at small noncryogenic generators, or are taken from tonnage plants used primarily to supply tonnage users. Tonnage 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 merchant market. Air Products also designs and builds systems for recovering oxygen, hydrogen, nitrogen, carbon monoxide and low dew point gases using adsorption technology.

Tonnage and merchant sales of atmospheric gases -- oxygen, nitrogen and argon -- constituted approximately 24% of Air Products' consolidated sales in fiscal 1997 and were approximately 28% and 29% in fiscal years 1996 and 1995, respectively. Tonnage and merchant sales of industrial gases -- principally oxygen, nitrogen and hydrogen -- to the chemical process industry, the electronics industry and the basic steel industry, the largest consuming industries, were approximately 14%, 10% and 5%, respectively, of Air Products' consolidated sales in fiscal 1997.

Other important consumers of Air Products' industrial and specialty gases are the oil industry (which uses inert nitrogen for oil well stimulation and field pressurization and hydrogen and oxygen for refining) and the food industry (which uses liquid nitrogen for food freezing). 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.

Helium is sold for use in magnetic resonance imaging equipment, controlled atmospheres processes and welding. Medical gases are sold in the merchant market to hospitals and clinics, primarily for inhalation therapy.

Specialty gases include fluorine products, rare gases such as xenon, krypton and neon and more common gases of high-purity or gases which are precisely blended as mixtures. These gases are used in numerous industries and in electronic and laboratory applications.

Sales of industrial gases to merchant customers and/or sales of specialty products to the electronics industry are made principally through field sales forces from 111 offices in 38 states in the United States and Puerto Rico, and from 159 offices in 23 foreign countries. In addition, industrial gas companies in which the Company has investments operate in 29 foreign countries. See "Foreign Operations" on pages 4 and 5 of this report.

Electricity and hydrocarbons, including natural gas as a feedstock for producing certain gases, are important to Air Products' industrial gas business. See "Raw Materials and Energy". The Company's large truck fleet, which delivers products to merchant 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 industrial gas businesses. See "Environmental Controls".

#### CHEMICALS

The Company's chemicals businesses consist of polymer chemicals, performance chemicals, 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 which the Company provides, and the scale of production and the production technology employed by the Company.

#### POLYMER CHEMICALS

Air Products' polymer chemicals are water-based and water-soluble products derived primarily from vinyl acetate monomer. The principal products of these businesses are polymer emulsions, pressure sensitive adhesives, and polyvinyl alcohol. Total sales from these businesses constituted approximately 12% of Air Products' consolidated sales in fiscal year 1997, 13% in fiscal year 1996 and 14% in fiscal year 1995, respectively.

**Polymer Emulsions** - The Company's major emulsion products are vinyl acetate homopolymer emulsions and Airflex(R) vinyl acetate-ethylene copolymer emulsions. The Company also produces emulsions which 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.

**Pressure Sensitive Adhesives** - These products are water-based acrylic emulsions which are used for both permanent and removable pressure sensitive adhesives primarily for labels and tapes.

**Polyvinyl Alcohol** - These polymer products are water-soluble synthetic resins which are used in textile warp sizes, surface sizes for paper, adhesives, safety glass laminates and as emulsifying agents in polymerization. As a coproduct of polyvinyl alcohol, acetic acid is a merchant product sold to a variety of markets including textiles, pharmaceuticals and electronics.

## PERFORMANCE CHEMICALS

Air Products' performance chemicals are differentiated from the competition based on their performance when used in the customer's products and the technical service which the Company provides. The principal products of these businesses are specialty additives, polyurethane additives and epoxy additives. Total sales from these businesses constituted approximately 8% of Air Products' consolidated sales in fiscal year 1997, 10% in fiscal year 1996 and 9% in fiscal year 1995.

Specialty Additives - These products are primarily acetylenic alcohols and amines which are used as performance additives in coatings, lubricants, electro-deposition processes, agricultural formulations and corrosion inhibitors.

Polyurethane Additives - These products include catalysts and surfactants which 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.

Epoxy Additives - These products include polyamides, aromatic amines, cycloaliphatic amines, reactive diluents and specialty epoxy resins which 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 certain industrial chemicals (ammonia, methanol and nitric acid) as raw materials for its differentiated products. Total third-party sales from the chemical intermediates businesses constituted 11% of Air Products' consolidated sales in each of fiscal years 1997 and 1996, and 12% in fiscal year 1995.

Amines - The Company produces a broad range of amines using ammonia and methanol, which are both manufactured by Air Products, and other alcohol feedstocks purchased from various suppliers. Other, more specialized amines are produced by the hydrogenation of purchased intermediates. 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, artificial sweeteners, rubber chemicals and pharmaceuticals. Ammonia is a feedstock for its alkylamines and the excess over this requirement is marketed as ammonium nitrate prills and solutions, which are primarily used by customers as fertilizers or in other agricultural applications. Methanol is principally used by Air Products as a feedstock in methylamine production and the excess over this requirement is marketed to the methanol market.

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. Virtually all of the Company's production of DNT and TDA is sold under long-term contracts to a small number of customers.

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Chemical sales are supported from various locations in the United States, England, Germany, Brazil, Mexico, the Netherlands, Japan, China, Singapore and South 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").

Early in fiscal 1998, the Company announced it had begun discussions towards combining its emulsion and redispersible powder activities with those of Wacker-Chemie GmbH.

## EQUIPMENT AND SERVICES

The equipment business of Air Products designs, manufactures and supplies cryogenic and other process equipment, and includes the Company's power generation business, and its flue gas treatment business.

## EQUIPMENT

The Company designs and manufactures equipment for cryogenic air separation, gas processing, natural gas liquefaction, hydrogen purification, and nitrogen rejection. Air Products also designs and builds systems for recovering hydrogen, nitrogen, carbon monoxide, carbon dioxide and low dew point gases using membrane technology. 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 industrial gases segment and for sale in industrial markets which include the Company's international industrial gas affiliates.

The backlog of orders (including letters of intent) believed to be firm from other companies and equity affiliates for equipment was approximately \$310 million on September 30, 1997, approximately 40% of which relates to natural gas liquefaction, as compared with a total backlog of approximately \$306 million on September 30, 1996. It is expected that approximately \$237 million of the backlog on September 30, 1997, will be completed during fiscal 1998.

## POWER GENERATION

Air Products constructed, operates and has a 50% interest in a 49-megawatt fluidized-bed coal-fired power generation facility in Stockton, California; an 85-megawatt coal waste burning power generation facility in western Pennsylvania; a 120-megawatt gas-fired combined cycle power generation facility in Orlando, Florida; and 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 48.9% interest, is being constructed in Thailand that will supply electricity to a state-owned electricity generating authority and steam and electricity to an Air Products industrial gases affiliate.

## PURE AIR

Pure Air markets, develops, designs and builds flue gas treatment systems. Air Products operates and owns a 50% interest in a facility utilizing Mitsubishi Heavy Industries, Ltd. flue gas desulfurization (FGD) technology systems for removing sulfur dioxide from the flue gas of a coal-fired power generation plant in Indiana. Pure Air is working with a Florida utility company to develop a facility utilizing this FGD technology and other air pollution control technologies for treating the flue gas of a power generation plant to be powered by Orimulsion(R) fuel.

Additional information with respect to the Company's power generation and flue gas treatment businesses is included in Notes 8 and 16 to the Consolidated Financial Statements included under Item 8 herein.

## GENERAL

## FOREIGN OPERATIONS

Air Products through subsidiaries and affiliates conducts business in numerous countries outside the United States. The structure of the Air Products industrial gas business in Europe mirrors the Company's United States operation. 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.

Majority and wholly owned subsidiaries operate in Australia, Brazil, Canada and Mexico and in 12 countries in Europe and 7 countries in Asia. The Company also has less than controlling interests in industrial gas companies in Mexico and in 5 countries in Europe and 7 countries in Asia. Air Products also has a 70% owned subsidiary engaged in the specialty gas and helium business as well as a 62.5% owned subsidiary engaged in the gas membrane business in China, a 51% owned subsidiary engaged in the manufacture and sale of polymer emulsions in Mexico, a 58% owned subsidiary engaged principally in cryogenic equipment manufacturing in the Czech Republic and 50% owned companies in France and South Africa (industrial gases). The Company and a French industrial gas company each have a 24.5% interest in an Algerian company that owns and operates a helium purification and liquefaction plant which provides helium to Air Products and the French industrial gas company.

Financial information about Air Products' foreign operations and investments is included in Notes 8, 10 and 20 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 5 to the Consolidated Financial Statements included under Item 8 herein, under "Foreign Exchange Contracts". Export sales from operations in the United States to unconsolidated customers amounted to \$555 million, \$459 million and \$415 million in 1997, 1996 and 1995, respectively. Total export sales in fiscal 1997 include \$98 million in export sales to affiliated customers. The sales to affiliated customers were primarily equipment sales.

#### TECHNOLOGY DEVELOPMENT

Air Products conducts research and development principally in its laboratories located in Trexlertown, Pennsylvania, as well as in Manchester and Basingstoke, England; and Utrecht, Netherlands. The Company also funds and works closely on research and development programs with a number of major universities and conducts a sizable amount of 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 each of fiscal 1997 and 1996 was \$114 million and \$103 million during fiscal 1995.

In the industrial gases and equipment and services segments, technology development is directed primarily to developing new and improved processes and equipment for the production and delivery of industrial gases and cryogenic fluids, developing new products, and developing new and improved applications for industrial gases. It is through such applications and improvements that the Company has become a major supplier to the electronics, polymer, petroleum, rubber, plastics, food processing and paper industries. Through fundamental research into sieve and polymer materials, advanced process engineering and integrated manufacturing methods, the Company discovers, develops and improves the economics of noncryogenic gas separation technologies. Additionally, technology development for the equipment and services businesses is directed primarily to reducing the capital and operating costs of its facilities and to commercializing new technologies in gas production and separation and in power production.

In the chemicals segment, technology development is primarily concerned with new products and applications to strengthen and extend our present positions in polymer and performance chemicals. In addition, a major continuing effort supports the development of new and improved manufacturing technology for chemical intermediates and various types of 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 exploratory research in areas important to the long-term growth of the Company's core businesses, e.g., gas and fluid separations, polymer science, organic synthesis, and fluorine chemicals.

As of November 1, 1997, Air Products owned 974 United States patents and 1,753 foreign patents. The Company is also licensed to practice under 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.

The Company manufactures hydrogen, carbon monoxide, synthesis gas, anhydrous ammonia, carbon dioxide, and methanol principally from natural gas. Such products accounted for approximately 8% of the Company's consolidated sales in fiscal 1997. 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, which supports the polymer business, the Company is heavily dependent on a single supplier, under a long-term contract, which 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, polyvinyl alcohol, amines, polyurethane intermediates, specialty additives, polyurethane additives and epoxy additives. Such products accounted for approximately 31% of the Company's consolidated sales in fiscal 1997. Natural gas is an energy source at a number of the Company's facilities.

The Company's industrial gas facilities use substantial amounts of electrical power. Any shortage of electrical power or interruption of its supply or increase in its price which cannot be passed through to customers for competitive reasons will adversely affect the merchant industrial gas business of the Company.

In addition, the Company purchases finished and semifinished materials and chemical intermediates from many suppliers. During fiscal 1997, 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 protection totaled \$26 million in 1997, and \$27 million both in 1996 and 1995. 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 approximately \$27 million in 1998 and \$29 million in 1999.

Although precise amounts are difficult to define, the Company estimates that in fiscal 1997 it spent approximately \$8 million on capital projects to control pollution (including expenditures associated with new plants) versus \$11 million in 1996. Capital expenditures to control pollution in future years are estimated at \$9 million in 1998 and \$8 million in 1999.

The exact amount to be expended by the Company and its power generation business joint ventures on equipment to control pollution will depend upon the timing of the capital projects and timing and content of regulations promulgated by environmental regulatory bodies during the life of any capital investment. Efforts are made to pass these costs through to customers. 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 \$17 million to a reasonably possible upper exposure of \$39 million. The balance sheet at 30 September 1997 includes an accrual of \$33 million and a receivable balance of \$1 million relating to third party recoveries. At 30 September 1996, the balance sheet accrual was \$32 million, and the receivable balance was \$1 million.

In addition to the environmental exposures discussed in the preceding paragraph, there will be spending at a Company-owned manufacturing site where the Company is undertaking RCRA corrective action remediation. The Company estimates capital costs to implement the anticipated remedial program will range from \$26-\$33 million. Spending was \$1 million in fiscal 1997 and is estimated at \$9 million for fiscal 1998 and \$8 million for 1999. Operating and maintenance expenses associated with continuing the remedial program are estimated to be approximately \$1 million per year beginning in fiscal 1998 and continuing for an estimated period of up to 30 years. A former owner and operator at the site has agreed to reimburse the Company approximately 20% of the costs incurred in the remediation. The cost estimates have not been reduced by the value of such reimbursement, which the Company believes is probable of realization.

Actual costs to be incurred in future periods may vary from the estimates, given inherent uncertainties in evaluating environmental exposures and factors beyond the Company's control such as: lack of knowledge or scarcity of reliable data pertaining to identified sites; method and extent of remediation ultimately required; years of remedial activity required; number of parties involved; final determination of the Company's liability in proportion to that of other parties; identification of new sites; evolving environmental laws and regulations and their application; and advances in technology.

The Company's domestic competitors face similar requirements, which are not shared by most foreign competitors.

#### 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. A similar competitive situation exists in European industrial gas markets in which the Company competes against one or more larger entrenched competitors in most countries.

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 intermediates. 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 and services businesses including power generation compete in all aspects with a great number of firms, some of which have greater financial resources than Air Products. Another important factor in certain export sales is financing provided by governmental entities in the United States and the United Kingdom as compared with financing offered by their counterparts in other countries.

Competition is based primarily on technological performance, service, technical know-how, price and performance guarantees. Air Products believes that its comprehensive project development capability, operating experience, engineering and financing capabilities and construction management experience will enable it to compete effectively.

## 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, for itself and its power generation and flue gas treatment joint venture affiliates for which it assumes turnkey construction or operating responsibility, maintains public liability and property insurance coverage at amounts which management believes are sufficient, after retention, 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.

## AMERICAN REF-FUEL

In December 1997, the Company sold its interest in American Ref-Fuel, its waste-to-energy partnerships with Browning-Ferris Industries, Inc., to a limited liability company formed by Duke Energy Power Services and United American Energy Corp. From this transaction, Air Products expects to record an after-tax gain of approximately \$35 million. As part of the transaction, Duke Energy Capital Corporation, the parent of Duke Energy Power Services, will assume or guarantee the Company's obligations under the financial support arrangements as outlined in Note 16 to the Consolidated Financial Statements included under Item 8 herein. The Company will retain a limited partnership interest, entitling it to the settlement proceeds in one project which is undergoing a power contract restructuring. The restructuring is expected to be completed within one year.

## EMPLOYEES

On September 30, 1997, the Company (including majority-owned subsidiaries) had approximately 16,400 full-time employees of whom approximately 6,250 were located outside the United States. The Company has collective bargaining agreements with unions at numerous locations, which expire on various dates over the next three years. The Company considers relations with its employees to be satisfactory. The Company does not believe that any expiring collective bargaining agreements will result in a material adverse impact on the Company.

## EXECUTIVE OFFICERS OF THE COMPANY

The Company's executive officers, their respective positions and their respective ages on December 15, 1997 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 -----
James H. Agger (D)(E)	61	Senior Vice President, General Counsel and Secretary (became Senior Vice President in 1997)
Robert E. Gadomski (D)(E)	50	Executive Vice President--Chemicals (became Executive Vice President--Chemicals in 1996; Group Vice President--Chemicals Group 1992-1996)
John P. Jones, III (D)(E)	47	Executive Vice President--Gases and Equipment (became Executive Vice President--Gases and Equipment in 1996; President--Air Products Europe, Inc. 1993-1996; Group Vice President--Process Systems Group 1992-1993)
Joseph J. Kaminski (A)(D)(E)	58	Corporate Executive Vice President (became Corporate Executive Vice President in 1996; Executive Vice President--Gases and Equipment 1993-1996; President--Air Products Europe, Inc. prior thereto)
Arnold H. Kaplan (D)(E)	58	Senior Vice President--Finance (became Senior Vice President--Finance in 1997; Vice President--Finance in 1996; Vice President--Energy and Materials prior thereto)
Harold A. Wagner (A)(B)(C)(D)(E)	62	Chairman of the Board, President and Chief Executive Officer (became Chairman of the Board and Chief Executive Officer in 1992)

- 
- (A) Member, Board of Directors.
  - (B) Member, Executive Committee of the Board of Directors.
  - (C) Member, Finance Committee of the Board of Directors.
  - (D) Member, Management Committee.
  - (E) 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 Brampton, near Toronto, Canada, and in leased facilities in the Allentown area, Pennsylvania; Tokyo, Japan; Hong Kong, People's Republic of China; Singapore and Sao Paulo, Brazil. The management considers the Company's facilities, described in more detail below, to be adequate to support the business efficiently. The following information with respect to properties is as of September 30, 1997.

## INDUSTRIAL GASES

The industrial gases segment has approximately 176 plant facilities in 38 states, the majority of which recover nitrogen, oxygen and argon. The Company has seven facilities which produce specialty gases and 27 facilities which recover hydrogen throughout the United States. Helium is recovered at two plants in Kansas and Texas, and acetylene is manufactured at six plants in six states in the United States. There are 119 sales offices and/or cylinder distribution centers located in 40 states.

The property on which the above plants are located are 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 half of its sales offices and cylinder distribution centers, including related real estate, and leases the other half.

Air Products' European plant facilities total 59, and include eight plants which recover hydrogen, six plants which manufacture dissolved acetylene, and one which recovers carbon monoxide. The majority of European plants recover nitrogen, oxygen and argon. In addition, there are five specialty gas centers. There is a combined total of 107 sales offices and/or cylinder distribution centers in Europe, and several additional facilities located in Brazil, Canada, Japan, the People's Republic of China, Puerto Rico, Singapore, Indonesia and the Middle East. Representative offices are located in Taiwan and in Beijing and Shanghai in the People's Republic of China.

#### CHEMICALS

The chemicals segment manufactures amines, nitric acid, methanol, anhydrous ammonia and ammonia products at its Pace, Florida, facility; alkylamines at its St. Gabriel, Louisiana, facility; polyvinyl acetate emulsions at its South Brunswick, New Jersey, facility; styrene emulsions, styrene acrylics, polyvinyl acetate acrylics, and polyvinyl acetate emulsions at its San Juan del Rio facility in Mexico; nitric acid, dinitrotoluene, toluene diamine, polyvinyl alcohol and acetic acid at its Pasadena, Texas, facility; and polyvinyl acetate emulsions, polyvinyl alcohol, acetic acid 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; Los Angeles, California and Cumberland, Rhode Island. The chemicals segment manufactures polyurethane additives at its Paulsboro, New Jersey, facility which is leased in part and owned in part. The chemicals segment also manufactures polyvinyl acetate emulsions at five smaller locations.

The chemicals segment has 16 plant facilities, four sales offices and one laboratory in the United States and operates one plant, seven sales/representative offices and two laboratories in Europe, laboratories in Brazil, and Korea, one plant in Mexico, one plant in Korea, and sales offices in Australia, Brazil, Mexico, Japan, Korea, 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 thereunder are owned. Approximately 75% of the offices are leased by the Company and 25% are owned.

#### EQUIPMENT AND SERVICES

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

#### 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. 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. Included in these claims and actions are proceedings under the Comprehensive Environmental Response, Compensation, and Liability Act (the federal Superfund law), the Resource Conservation and Recovery Act (RCRA) and similar state environmental laws relating to the designation of certain sites for investigation or remediation. There are presently approximately 50 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. While monetary sanctions have not yet been determined, they may exceed \$100,000. Additional information on the Company's environmental exposure is included under Environmental Controls on pages 6 and 7 of this report.

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

Not applicable.

## PART II

## ITEM 5. MARKET FOR THE COMPANY'S COMMON STOCK AND RELATED STOCKHOLDER MATTERS.

Market and dividend information for the Company's Common Stock appears under "Eleven-Year Summary of Selected Financial Data" on pages 32 and 33 of the 1997 Financial Review Section of the Annual Report to Shareholders which is incorporated herein by reference. In addition, 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.

As of November 28, 1997, there were 11,355 record holders of the Company's Common Stock.

## ITEM 6. SELECTED FINANCIAL DATA.

The tabular information appearing under "Eleven-Year Summary of Selected Financial Data" on pages 32 and 33 of the 1997 Financial Review Section of the Annual Report to Shareholders is incorporated herein by reference.

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

The textual information appearing under "Management's Discussion and Analysis" on pages 2 through 7 of the 1997 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 "Financial Instruments Sensitivity Analysis" on pages 7 and 8 of the 1997 Financial Review Section of the Annual Report to Shareholders is incorporated herein by reference.

## ITEM 8. FINANCIAL STATEMENTS.

The consolidated financial statements and the related notes thereto together with the report thereon of Arthur Andersen LLP dated 4 November 1997, appearing on pages 9 through 31 of the 1997 Financial Review Section of the Annual Report to Shareholders, are incorporated herein by reference.

## ITEM 9. DISAGREEMENTS ON ACCOUNTING AND FINANCIAL DISCLOSURE.

Not applicable.

## PART III

## ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE COMPANY.

The biographical information relating to the Company's directors contained on pages 2 through 5 of the Proxy Statement relating to the Company's 1998 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.

## ITEM 11. EXECUTIVE COMPENSATION.

The information under "Other Relationships and Transactions", "Remuneration of Directors", "Report of the Management Development and Compensation Committee", "Compensation, Option and Long-Term Incentive Plan Tables", "Stock Performance Information", "Pension Plans", and "Certain Agreements with Executive Officers" appearing on pages 7 through 19 of the Proxy Statement relating to the Company's 1998 Annual Meeting of Shareholders is incorporated herein by reference.

## ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT.

The information required for this Item is set forth in the section headed "Security Ownership of Certain Beneficial Owners and Management" contained on pages 19 through 22 of the Proxy Statement relating to the Company's 1998 Annual Meeting of Shareholders and such information is incorporated herein by reference.

## ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS.

The information under "Other Relationships and Transactions" appearing on page 7 of the Proxy Statement relating to the Company's 1998 Annual Meeting of Shareholders is incorporated herein by reference.

## PART IV

## ITEM 14. EXHIBITS, FINANCIAL STATEMENT SCHEDULES AND REPORTS ON FORM 8-K.

(a) The following documents are filed as part of this Report:

1. The 1997 Financial Review Section of the Company's 1997 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 1997 FINANCIAL REVIEW SECTION OF THE ANNUAL REPORT)

Management's Discussion and Analysis.....	2
Report of Independent Public Accountants.....	9
Consolidated Income for the three years ended 30 September 1997.....	10
Consolidated Balance Sheets at 30 September 1997 and 1996.....	11
Consolidated Cash Flows for the three years ended 30 September 1997.....	12
Consolidated Shareholders' Equity for the three years ended 30 September 1997.....	13
Notes to Consolidated Financial Statements.....	14
Business Segment and Geographic Information.....	29
Eleven-Year Summary of Selected Financial Data.....	32

2. The following additional information should be read in conjunction with the financial statements in the Company's 1997 Financial Review Section of the Annual Report to Shareholders:

(PAGE REFERENCES TO THIS REPORT)

Report of Independent Public Accountants on Schedule.....	17
Consent of Independent Public Accountants.....	17

Consolidated Schedule for the years ended 30 September 1997, 1996 and 1995 as follows:

SCHEDULE  
NUMBER  
-----

VIII Valuation and Qualifying Accounts.....	18
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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.

## 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 September 18, 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 September 30, 1987.)*

- 3.3 Amendment to the Restated Certificate of Incorporation of the Company dated January 25, 1996. (Filed as Exhibit 3.3 to the Company's Form 10-K Report for the fiscal year ended September 30, 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 March 23, 1988, between the Company and The Chase Manhattan Bank, N.A. (Filed as Exhibit 1, 2 to the Company's Form 8-A Registration Statement dated March 28, 1988.)\*
- (10) Material Contracts.
- 10.1 1990 Deferred Stock Plan of the Company, as amended and restated effective October 1, 1989. (Filed as Exhibit 10.1 to the Company's Form 10-K Report for the fiscal year ended September 30, 1989.)\*
- 10.2(a) Long-Term Incentive Plan of the Company, as amended. (Filed as Exhibit 10.2 to the Company's Form 10-K Reports for each of the fiscal years ended September 30, 1986, September 30, 1987 and September 30, 1988.)\*
- 10.2(b) 1990 Long-Term Incentive Plan of the Company. (Filed as Exhibit 10.2(b) to the Company's Form 10-K Report for the fiscal year ended September 30, 1989.)\*
- 10.2(b)(1) Amendment to 1990 Long-Term Incentive Plan of the Company, effective July 16, 1992. (Filed as Exhibit 10.2(b)(1) to the Company's Form 10-K Report for the fiscal year ended September 30, 1993.)\*
- 10.2(c) 1997 Long-Term Incentive Plan of the Company effective October 1, 1996. (Filed as Exhibit 10.2(c) to the Company's Form 10-K Report for the fiscal year ended September 30, 1996.)\*
- 10.3 1990 Annual Incentive Plan of the Company, as amended and restated effective October 1, 1989. (Filed as Exhibit 10.3 to the Company's Form 10-K Report for the fiscal year ended September 30, 1989.)\*
- 10.3(a) 1997 Annual Incentive Plan of the Company effective October 1, 1996.
- 10.4 Supplementary Pension Plan of the Company, as amended effective October 1, 1988. (Filed as Exhibit 10.4 to the Company's Form 10-K Report for the fiscal year ended September 30, 1989.)\*
- 10.4(a) Amendment to Supplementary Pension Plan of the Company, adopted September 20, 1995. (Filed as Exhibit 10.4(d) to the Company's Form 10-K Report for the fiscal year ended September 30, 1995.)\*
- 10.4(b) Amendment to Supplementary Pension Plan of the Company, adopted September 20, 1995. (Filed as Exhibit 10.4(e) to the Company's Form 10-K Report for the fiscal year ended September 30, 1995.)\*
- 10.4(c) Amendment to Supplementary Pension Plan of the Company, adopted November 2, 1995. (Filed as Exhibit 10.4(c) to the Company's Form 10-K Report for the fiscal year ended September 30, 1996.)\*
- 10.4(d) Amended and Restated Trust Agreement by and between the Company and Provident National Bank relating to the Supplementary Pension Plan dated as of October 31, 1989. (Filed as Exhibit 10.4(a) to the Company's Form 10-K Report for the fiscal year ended September 30, 1989.)\*
- 10.4(e) Amendment to the Amended and Restated Trust Agreement by and between the Company and PNC Bank, N.A. (previously Provident National Bank) relating to the Supplementary Pension Plan dated May 1, 1995. (Filed as Exhibit 10.4(g) to the Company's Form 10-K Report for the fiscal year ended September 30, 1995.)\*
- 10.4(f) Amendment to the Amended and Restated Trust Agreement by and between the Company and PNC Bank, N.A. (previously Provident National Bank) relating to the Supplementary Pension Plan dated May 1, 1997.

- 16  
10.5 Supplementary Savings Plan of the Company as amended October 1, 1989. (Filed as Exhibit 10.5 to the Company's Form 10-K Report for the fiscal year ended September 30, 1989.)\*
- 10.5(a) Trust Agreement by and between the Company and Provident National Bank relating to the Supplementary Savings Plan dated as of October 31, 1989. (Filed as Exhibit 10.5(a) to the Company's Form 10-K Report for the fiscal year ended September 30, 1989.)\*
- 10.5(b) Amendment to the Trust Agreement by and between the Company and PNC Bank, N.A. (previously Provident National Bank) relating to the Supplementary Pension Plan dated May 1, 1995. (Filed as Exhibit 10.5(b) to the Company's Form 10-K Report for the fiscal year ended September 30, 1995.)\*
- 10.5(c) Amendment to the Trust Agreement by and between the Company and PNC Bank, N.A. (previously Provident National Bank) relating to the Supplementary Pension Plan and Supplementary Savings Plan dated May 1, 1997.
- 10.6(a) Amended and Restated Deferred Compensation Plan for Directors of the Company, effective November 21, 1996. (Filed as Exhibit 10.6(a) to the Company's Form 10-K Report for the fiscal year ended September 30, 1996.)\*
- 10.6(b) Amended and Restated Pension Plan for Directors of the Company, effective January 1, 1983, as amended effective January 1, 1990 and January 1, 1994. (Filed as Exhibit 10.6(b) to the Company's Form 10-K Report for the fiscal year ended September 30, 1993.)\*
- 10.6(c) Stock Option Plan for Directors of the Company, effective January 27, 1994.
- 10.7 Agreements with executives.
- 10.7(a) Form of Employment Agreement dated July 30, 1987, which the Company has with each of its executive officers. (Filed as Exhibit 10.7(a) to the Company's Form 10-K Report for the fiscal year ended September 30, 1987.)\*
- 10.8 Employee Severance Plans.
- 10.8(a) Air Products and Chemicals, Inc. Severance Plan effective March 15, 1990. (Filed as Exhibit 10.8(a) to the Company's Form 10-K Report for the fiscal year ended September 30, 1992.)\*
- 10.8(b) Air Products and Chemicals, Inc. Change of Control Severance Plan effective March 15, 1990. (Filed as Exhibit 10.8(b) to the Company's Form 10-K Report for the fiscal year ended September 30, 1992.)\*
- (11) Earnings per share.
- (12) Computation of Ratios of Earnings to Fixed Charges.
- (13) 1997 Financial Review Section of the Annual Report to Shareholders for the fiscal year ended September 30, 1997, which is furnished to the Commission for information only, and not filed except as expressly incorporated by reference in this Report.
- (21) Subsidiaries of the registrant.
- (24) Power of Attorney.
- (27) Financial Data Schedule, which is submitted electronically to the Securities and Exchange Commission for information only, and not filed.
- (27)(b) Reports on Form 8-K filed during the quarter ended September 30, 1997.
- Current Reports on Form 8-K dated July 24, 1997, September 18, 1997, October 13, 1997, and October 23, 1997, were filed in which Item 5 of such Form was reported.

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



## 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.

Dated: December 11, 1997

AIR PRODUCTS AND CHEMICALS, INC.  
(Registrant)

By: /s/ Arnold H. Kaplan

-----  
Arnold H. Kaplan, Senior Vice President -- Finance  
Principal Financial Officer

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 -----	TITLE -----	DATE -----
/s/ Harold A. Wagner ----- (Harold A. Wagner)	Director, Chairman of the Board and President (Principal Executive Officer)	December 11, 1997
/s/ Paul E. Huck ----- (Paul E. Huck)	Vice President and Corporate Controller (Principal Accounting Officer)	December 11, 1997
* ----- (Dexter F. Baker)	Director	December 11, 1997
* ----- (Tom H. Barrett)	Director	December 11, 1997
* ----- (L. Paul Bremer)	Director	December 11, 1997
* ----- (Robert Cizik)	Director	December 11, 1997
* ----- (Ruth M. Davis)	Director	December 11, 1997
* ----- (Edward E. Hagenlocker)	Director	December 11, 1997

SIGNATURE -----	TITLE -----	DATE -----
* ----- (James F. Hardymon)	Director	December 11, 1997
* ----- (Joseph J. Kaminski)	Director	December 11, 1997
* ----- (Terry R. Lautenbach)	Director	December 11, 1997
* ----- (Rudolphus F. M. Lubbers)	Director	December 11, 1997
* ----- (Takeo Shiina)	Director	
* ----- (Lawrason D. Thomas)	Director	December 11, 1997

\* James H. Agger, Senior 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/ James H. Agger  
-----  
James H. Agger  
Attorney-in-Fact

## REPORT OF INDEPENDENT PUBLIC ACCOUNTANTS ON SCHEDULE

To: Air Products and Chemicals, Inc.

We have audited in accordance with generally accepted auditing standards, the consolidated financial statements included in Air Products and Chemicals, Inc.'s Annual Report to Shareholders incorporated by reference in this Form 10-K, and have issued our report thereon dated 4 November 1997. Our audit was made for the purpose of forming an opinion on those statements taken as a whole. The schedule referred to in Item 14(a)(2) in this Form 10-K is the responsibility of the Company's management and is presented for the purposes of complying with the Securities and Exchange Commission's rules and is not part of the basic consolidated financial statements. This schedule has been subjected to the auditing procedures applied in the audit of the basic consolidated financial statements and, in our opinion, fairly states in all material respects the financial data required to be set forth therein in relation to the basic consolidated financial statements taken as a whole.

ARTHUR ANDERSEN LLP

Philadelphia, Pennsylvania  
4 November 1997

## CONSENT OF INDEPENDENT PUBLIC ACCOUNTANTS

To: Air Products and Chemicals, Inc.

As independent public accountants, we hereby consent to the incorporation of our reports included or incorporated by reference in this Form 10-K, into the Company's previously filed Registration Statements on Form S-8 and Form S-3 (File Nos. 333-33851, 333-02461, 33-2068, 33-57017, 333-36231, 33-57023, 33-65117, 333-21145, 333-18955 and 333-21147).

ARTHUR ANDERSEN LLP

Philadelphia, Pennsylvania  
10 December 1997

AIR PRODUCTS AND CHEMICALS, INC. AND SUBSIDIARIES  
SCHEDULE VIII -- VALUATION AND QUALIFYING ACCOUNTS  
FOR THE YEARS ENDED 30 SEPTEMBER 1997, 1996 AND 1995

COLUMN A	COLUMN B	COLUMN C	COLUMN D		COLUMN E	
CLASSIFICATION	BALANCE AT BEGINNING OF PERIOD	ADDITIONS		OTHER CHANGES INCREASE (DECREASE)		BALANCE AT END OF PERIOD
		CHARGED TO EXPENSE	CHARGED TO OTHER ACCOUNTS(1)	CUMULATIVE TRANSLATION ADJUSTMENTS	OTHER(2)	
(IN MILLIONS OF DOLLARS)						
Amounts deducted in the consolidated balance sheet from the asset to which it applies:						
YEAR ENDED 30 SEPTEMBER 1997						
Allowance for doubtful accounts	\$ 13 =====	\$ 6 =====	\$ 6 =====	\$ (1) =====	\$ (4) =====	\$ 20 =====
YEAR ENDED 30 SEPTEMBER 1996						
Allowance for doubtful accounts	\$ 14 =====	\$ 5 =====	\$ 1 =====	\$ -- =====	\$ (7) =====	\$ 13 =====
YEAR ENDED 30 SEPTEMBER 1995						
Allowance for doubtful accounts	\$ 13 =====	\$ 8 =====	\$ (1) =====	\$ -- =====	\$ (6) =====	\$ 14 =====

## NOTES:

- (1) Includes collections on accounts previously written off and additions applicable to businesses acquired.
- (2) Primarily includes write-offs of uncollectible accounts.

AIR PRODUCTS AND CHEMICALS, INC.  
1997 Annual Incentive Plan  
As Amended and Restated Effective October 1, 1996

1. PURPOSES OF THE PLAN

The purposes of this Plan are to attract, motivate and retain high caliber people and to provide meaningful individual and group incentives within Air Products and Chemicals, Inc. (the "Company") and Participating Subsidiaries.

2. ADMINISTRATION OF THE PLAN

The Plan shall be administered by the Management Development and Compensation Committee (the "Committee") of the Company's Board of Directors or such other committee thereof consisting of such members (not less than three) of the Board of Directors as are appointed from time to time by the Board and who are not eligible and have not been eligible within a period of one year prior to the date of such appointment to receive any award under this Plan.

The Committee shall have all necessary powers to administer and interpret the Plan, such powers to include exclusive authority (within the limitations described in the Plan) to select the employees to whom awards will be granted under the Plan and determine the amount of any award to be made to any employee. In order to assist it in selecting employees and determining the amount of any award to be given to each employee selected, as aforesaid, the Committee may take into consideration recommendations from the appropriate officers of the Company and of each Participating Subsidiary with respect to awards to be given to eligible employees of the Company and of each such Participating Subsidiary, respectively.

The Committee shall have full power and authority to adopt such rules, regulations and instruments for the administration of the Plan and for the conduct of its business as the Committee deems necessary or advisable. The Committee's interpretations of the Plan, and all action taken and determinations made by the Committee pursuant to the powers vested in it hereunder, shall be conclusive and binding on all parties concerned, including the Company, its shareholders and any employee of the Company or any Subsidiary.

3. ELIGIBILITY FOR PARTICIPATION

Participants in the Plan shall be selected by the Committee from among key employees of the Company and Participating Subsidiaries. The term "employee" shall mean any person employed full-time by the Company or a Participating Subsidiary on a salaried basis and the term "employment" shall mean full-time salaried employment by the Company or a Subsidiary. Employees who participate in other incentive or benefit plans of the Company or of any Participating Subsidiary may also participate in this Plan.

Awards under the Plan are for services rendered during a Fiscal Year, based on the performance of the Company during that Fiscal Year. No employee shall be eligible to receive an award under the Plan for a particular Fiscal Year unless the employee is in the employment of the Company or a Participating Subsidiary on the last day of that Fiscal Year, provided, however, that an employee whose employment with the Company or a Participating Subsidiary terminates during but before the end of a Fiscal Year on account of (i) Retirement, Disability or death, (ii) in connection with a divestiture of facilities, assets or businesses, elimination of positions, or a reorganization or reduction in the work force of the Company or a Participating Subsidiary, (iii) because of the commencement of part-time employment with or leave of absence from the Company or a Subsidiary, or (iv) on or following a Change in Control, and who at the time of such termination of employment was eligible to participate in the Plan, shall be eligible to receive an award under the Plan for such Fiscal Year.

#### 4. AWARDS

(a) Prior to the end of each Fiscal Year, the Committee shall determine whether awards shall be made under the Plan for that Fiscal Year and, if so, fix the classes of employees eligible to receive awards based upon job grade and salary levels, the proportions of the awards to be paid in cash and in common stock of the Company ("Common Stock"). The Committee shall establish a basis or schedule for determining the total amount of awards and for determining a minimum aggregate dollar amount of awards for employees of the Company and of each domestic Participating Subsidiary designated by the Committee who have elected not to defer such awards that might be granted to them and such other procedures for the making of the awards as the Committee may deem desirable.

(b) The basis (schedule) established under subparagraph (a) for determining the amount of awards may be based on variable factors established by the Committee from time to time, provided that the variables used to determine an amount for a particular Fiscal Year must be capable of being fixed and ascertainable as of the last day of such Fiscal Year. The minimum amount established under subparagraph (a) shall become an accrued liability of the Company on the last day of the Fiscal Year. The amounts of awards to be granted to particular employees of the Company and of the designated domestic Participating Subsidiaries within the eligible classes may be determined after the close of the Fiscal Year under procedures established by the Committee.

(c) The Committee shall, in approving the grant of awards to particular employees for any Fiscal Year, take into consideration (i) the performance of the Company and of each Participating Subsidiary for the Fiscal Year based upon such measure or measures of performance as the Committee shall select and (ii) as between Participants, the contribution of the Participant during the Calendar Year to the success of the Company or the Participating Subsidiary by which such person is employed, including his or her position and level of responsibility, the achievements of his or her division, group, department or other subdivision, and the recommendations of his or her superiors. No award or awards may be granted to any Participant for the same Fiscal Year having an aggregate value in excess of 150% of such Participant's

annualized base salary rate at the end of, or at the time of any earlier cessation of eligible employment during, the Fiscal Year. The number of shares of Common Stock to be delivered in payment of awards or portions of awards determined to be payable in such form shall be determined by dividing the amount of the award to be so paid by the value of a share of Common Stock determined as provided in paragraph 8(f) as of the date the Committee approves the grant of the award to the Participant.

(d) The Committee shall have complete discretion with respect to the determination of the employees to whom awards shall be made.

(e) Upon final approval by the Committee of awards to particular Participants, awards shall be payable in cash or Common Stock or both and in such amounts and proportions with respect to any Participant as the Committee shall, in its discretion, determine.

(f) Notwithstanding any other provisions of this Plan to the contrary, following or in connection with a Change in Control the Committee may, in its sole discretion, determine to pay awards for the portion of the current Fiscal Year preceding the Change in Control; provided, however, that no such award shall have an aggregate value which exceeds 150% of that Participant's annualized base salary rate immediately prior to the Change in Control. The Committee shall determine in that connection the classes of employees eligible to receive awards based upon job grade and salary levels, the amounts of awards to be made with respect to particular employees within the eligible classes for said partial Fiscal Year, and the proportions of the awards to be paid in cash and in Common Stock and shall undertake such other procedures for the making of the awards as the Committee may deem desirable. Such awards shall be due and payable to Participants within thirty days following the Committee's determination to pay said awards under this paragraph 4(f) or at such earlier date as the Committee shall determine, but in no event earlier than the occurrence of a Change in Control.

#### 5. FORM AND PAYMENT OF AWARDS

(a) Subject to the provisions of this paragraph 5 relating to deferred payment awards, awards for a particular Fiscal Year shall be distributed as soon as feasible, but no later than the fifteenth (15th) day of the third month after the close of the Fiscal Year, in cash or shares of Common Stock or both and, once announced by or for the Committee to the Participant, shall not be subject to forfeiture for any reason, whether or not payable immediately or as a deferred payment award; provided, however, that any award will be paid to the Participant only if the Participant is employed by the Company or a Participating Subsidiary on the last day of the Fiscal Year, except as otherwise permitted by paragraph 3.

(b) At the discretion of the Committee, payment of a portion of or all of an award to any Participant may be deferred until termination of employment by the Company or a Subsidiary, under such restrictions and terms as the Committee may establish including those set forth in paragraph 5(d). The deferred payment award may be payable in Common Stock or cash or both as determined by the Committee in its sole discretion. Amounts payable in Common Stock shall be entitled to Dividend Equivalents as provided in paragraph 6. Amounts payable in cash shall accumulate interest at such rate and under such conditions as the Committee shall determine.

(c) Any employee eligible to participate in the Plan may request, prior to commencement of the Fiscal Year as to which an award may be granted to such employee, that the Committee establish in its discretion that all or a part of an amount to be awarded to him or her for such Fiscal Year shall be in the form of a deferred payment award. The Committee shall advise the employee as soon as practicable after receipt of such request whether any such award that may be granted shall be in the form of a deferred payment award, the date or dates that any such deferred payment award shall be delivered and the form of payment. Once an employee requests a deferred award and the Committee grants the request, this action will be binding on both the employee and the Committee, except that if the amount designated by the Committee under Paragraph 4(a) that can be deferred is not sufficient to fund all of the deferrals, a pro rata reduction shall be made in each employee's deferred award and any excess shall be paid out currently.

(d) The deferred payment awards, related Dividend Equivalents and/or interest shall be distributed at such time, in such proportions and in such manner as the Committee shall direct, except that no part of such award shall be delivered before termination of employment or later than 10 years after termination of employment. Deferred payment awards shall be subject to the following further conditions and restrictions:

(i) Awarded but undelivered shares of Common Stock shall be reserved and retained by the Company as treasury stock.

(ii) If a Participant dies prior to receiving his or her entire award, the undelivered portion of any such award shall be paid to his or her Designated Beneficiary or, if none, to his or her legal representative at such times and in such manner as if such Participant were still living (or on such accelerated basis as the Committee may determine).

(iii) The Committee may authorize an acceleration of the delivery date of a portion or all of an undelivered award, related Dividend Equivalents and interest in the case of a hardship arising from causes beyond the Participant's control provided that the accelerated payment if made in such a case must be limited to an amount necessary to meet such hardship. Upon a Change in Control, the delivery date of all deferred payment awards shall be automatically accelerated and said deferred payment awards and related Dividend Equivalents and interest shall be due and payable to Participants immediately.

#### 6. DIVIDENDS

No cash dividends shall be paid on awarded but undelivered shares of Common Stock. However, when such shares of Common Stock are delivered to the Participant, the Company shall pay to the Participant an amount in cash which shall be equal to the cash dividends, if any, ("Dividend Equivalent") which would have been paid if the shares of Common Stock had been issued and outstanding since the grant of the award. No interest shall be paid on any such Dividend Equivalent or any part thereof.

In the event of a declaration of a dividend payable in Common Stock, the record date for which occurs after the date of the grant of an award but prior to the date of delivery of shares of



Common Stock to the Participant, the award shall be increased by such additional number of shares, if any, which would have been delivered if the shares of Common Stock had been issued and outstanding since the grant of the award. For this purpose, shares payable at the delivery date as a result of prior stock dividends shall be treated as awarded stock in determining the increase in shares to be delivered as the result of a current stock dividend.

#### 7. DILUTION AND OTHER ADJUSTMENTS

Notwithstanding any other provision of the Plan, in the event of any change in the outstanding shares of Common Stock of the Company by reason of any stock dividend, split, recapitalization, merger, consolidation, combination or exchange of shares or other similar corporate change including without limitation in connection with a Change in Control, an equitable adjustment shall be made, as determined by the Committee (but subject to the provisions of the first subparagraph of paragraph 9), in (a) the kind of shares subject to the Plan or the maximum number of shares which may be awarded to any one employee, (b) any other aspect or aspects of the plan or outstanding awards granted thereunder as specified by the Committee or (c) any combination of the foregoing. Such adjustment shall be made by the Committee and shall be conclusive and binding for all purposes of the Plan.

#### 8. MISCELLANEOUS PROVISIONS

(a) No recipient of an award shall have any rights as a Company shareholder with respect thereto unless and until the date as of which certificates for shares of Common Stock are issued in payment of such award.

(b) A Participant's rights and interests under the Plan may not be assigned or transferred except, in the case of the Participant's death, to his or her Designated Beneficiary or, in the absence of such designation, by will or the laws of descent and distribution.

(c) No shares of Common Stock shall be issued or distributed under the Plan unless and until all legal requirements applicable to the issuance or transfer of such shares have been complied with to the satisfaction of the Committee and the Company.

(d) The Company shall have the right to deduct from awards hereunder paid in whole or in part in cash any federal, state, local or foreign taxes required by law to be withheld with respect to such cash awards. In the case of awards to be paid by the distribution of Common Stock, the Company shall have the right to require, as a condition of such distribution, that the Participant or other person receiving such Common Stock either (i) pay to the Company at the time of distribution thereof the amount of any such taxes which the Company is required to withhold with respect to such Common Stock or (ii) make such other arrangements as the Company may authorize from time to time to provide for such withholding including without limitation having the number of the shares of Common Stock to be distributed reduced by an amount equal in value to the amount of such taxes required to be withheld. The obligation of the Company to make delivery of awards in cash or in Common Stock shall be subject to currency or other restrictions imposed by any government.

(e) No full- or part-time employee of the Company or a Subsidiary or other person shall have any claim or right to be granted an award under this Plan. Neither this Plan nor any action taken hereunder shall be construed as giving any such employee any right to be retained in the employ of the Company or a Subsidiary, it being understood that all Company and Subsidiary employees who have or may receive awards under this Plan are employed at the will of the Company or such Subsidiary and in accord with all statutory provisions.

(f) Distribution of shares of Common Stock in payment of awards under this Plan 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 Committee. Such shares shall be valued on any date set forth herein (or, if such date is not expressly set forth herein, on such date or dates as may be determined by the Committee, but not earlier than five trading days prior to the date for which the determination is being made) at the mean of the high and low sales prices on the New York Stock Exchange, as reported on the composite transaction tape, or on such other exchange as the Committee may determine.

(g) The costs and expenses of administering this Plan shall be borne by the Company and not charged to any award nor to any employee or Participant receiving an award. However, the Company may charge the cost of any awards made to employees of Participating Subsidiaries, including administrative costs and expenses related thereto, to the respective Participating Subsidiaries by which such persons are employed.

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

"Act" shall mean the Securities Exchange Act of 1934 as amended from time to time.

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

(i) Stock Acquisition. Any "person" (as such term is used in Sections 13(d) and 14(d)(2) of 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 an agreement for the merger, consolidation or other reorganization of the Company or the date of approval thereof by a majority of the Company's shareholders, as the case may be.

(ii) 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.

(iii) Other Events. Any other event or series of events which, not withstanding 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 Plan. 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.

"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 Committee in accordance with such procedures as the Committee shall approve, provided, however, that in the absence of the filing of such a form with the Company the Designated Beneficiary shall be the person or persons who are the Participant's beneficiary or beneficiaries of the Company's basic life insurance.

"Disability" shall mean permanent and total disability of an employee participating in the Plan as determined by the Committee in accordance with uniform principles consistently applied, upon the basis of such evidence as the Committee deems necessary and desirable.

"Fiscal Year" shall mean the twelve-month period used as the annual accounting period by the Company.

"Participant" shall mean, as to any award granted under this Plan and for so long as such award is outstanding, the employee to whom such award has been granted.

"Participating Subsidiary" shall mean any Subsidiary designated by the Committee to participate in this Plan which Subsidiary requests or accepts, by action of its board of directors or other appropriate authority, such designation.

"Retirement" shall mean separating from service with the Company or a Subsidiary with the right to begin receiving immediate pension benefits under the Company's Pension Plan for Salaried Employees or under another defined benefit pension plan sponsored or otherwise maintained by a Subsidiary for its employees, in either case as then in effect or, in the absence of the Pension Plan or such other pension plan being applicable to any Participant, as determined by the Committee in its sole discretion.

"Subsidiary" shall mean any domestic or foreign corporation, partnership, association, joint stock company, trust or unincorporated organization affiliated with the Company whether or not controlling, controlled by or under common control with the Company.

#### 9. AMENDMENTS AND TERMINATION

The Committee may at any time terminate or from time to time amend or suspend this Plan in whole or in part; provided, however, that no such amendment shall, without the consent of the Participant to whom an award has already been granted hereunder, operate to annul such award.

Unless approved by a vote of a majority of the shares present and entitled to be voted at a meeting of shareholders, no amendment shall be effective to increase the maximum amount which may be awarded to any individual for the same Fiscal Year, except as otherwise provided in paragraph 7.

#### 10. EFFECTIVE DATE, PAST AMENDMENTS AND TERM OF THE PLAN

This Plan, previously denominated the "Air Products and Chemicals, Inc. 1979 Incentive Compensation Plan", became effective for the Fiscal Year commencing on October 1, 1978 for awards to be made for years to and including Fiscal Year 1983, following approval by a majority of those present at the January 19, 1978 annual meeting of shareholders of the Company and entitled to vote thereon. The Plan was thereafter amended as permitted by its terms effective October 1, 1982 by action of the Board of Directors.

The Plan, as amended effective October 1, 1983, was continued in effect indefinitely until terminated, amended or suspended as permitted under paragraph 9 following approval by the holders of a majority of the outstanding shares of Common Stock of the Company at the January 26, 1984 annual meeting of shareholders of the Company. The Plan was thereafter amended as permitted by its terms effective March 1, 1986, October 1, 1986, July 15, 1987 and October 1, 1989 by action of the Committee. The Plan was renamed the 1990 Annual Incentive Plan and restated effective as of October 1, 1989. The Plan, as set forth herein, was renamed the 1997 Annual Incentive Plan, amended and restated effective as of October 1, 1996.

## AIR PRODUCTS AND CHEMICALS, INC.

SUPPLEMENTARY PENSION PLAN  
AND PRIVATE ANNUITY AGREEMENTSAMENDMENT NO. 4  
to the  
AMENDED AND RESTATED TRUST AGREEMENT

This Amendment No. 4 is made and entered into as of the 1st day of May, 1997, by and between Air Products and Chemicals, Inc. (the "Company") and PNC Bank, N.A. (previously Provident National Bank) (the "Trustee"). Capitalized terms not defined herein are defined in Article V of the Trust Agreement, as such term is defined below.

WHEREAS, the Company and the Trustee entered into a Trust Agreement dated December 1, 1987, which agreement was amended as of June 14, 1989; and

WHEREAS, the Company and the Trustee, with the consent of the Participant Representatives, entered into (a) an Amended and Restated Trust Agreement as of October 31, 1989 which reflected, among other things, the delivery to the Trustee of a replacement Letter of Credit upon the expiration of the initial Letter of Credit, and (b) Amendment Nos. 1, 2 and 3 to the Amended and Restated Trust Agreement as of April 25, 1991, April 30, 1993 and May 1, 1995, respectively, (such Amended and Restated Trust Agreement as so amended being referred to herein as the "Trust Agreement"), which Amendments No. 1, 2 and 3 reflected, among other things, the delivery to the Trustee of amendments to the Letter of Credit extending the term and changing the amount of the Letter of Credit; and

WHEREAS, in view of the fact that the Letter of Credit will expire on May 18, 1997, the Company and the Trustee have determined to amend again, with the consent of the Participant Representatives, Subsection 1.01(a) of the Trust Agreement to reflect the delivery to the Trustee of an amendment to the Letter of Credit currently held by the Trustee;

NOW, THEREFORE, in consideration of the mutual agreements contained herein and for other good and valuable consideration, the parties hereto, intending to be legally bound, agree as follows:

The first paragraph of Section 1.01(a) of the Trust Agreement shall be amended to read in its entirety as follows:

Initial Establishment of the Trust and Funding of Trust Amount. The Company has established with the Trustee a trust (the "Trust") consisting of such sums of money and/or assets as from time to time shall be paid or delivered to the Trustee (less such amounts distributed from the Trust pursuant to Sections 2.02, 2.03, 2.05 and 4.02 hereof or otherwise pursuant to the terms of this Trust Agreement), in whatever form held or invested as provided herein (the "Trust Fund"). The Company, concurrently with the establishment of the Trust, delivered to the Trustee to be held in the Trust \$100.00 in cash and a "Letter of Credit", as defined in Article V hereof, in the amount of twenty-nine million dollars (\$29,000,000.00). As of October 31, 1989, the Company delivered to the Trustee a replacement Letter of Credit in the amount of thirty-five million dollars (\$35,000,000.00). The Company subsequently delivered to the Trustee amendments dated April 18, 1991 and April 25, 1991 to the Letter of Credit, which respectively extended the term of the Letter of Credit and decreased the amount of the Letter of Credit to thirty million dollars (\$30,000,000.00). The Company subsequently delivered to the Trustee an amendment to the Letter of Credit dated April 30, 1993 which, among other things, extended the term of the Letter of Credit and increased the amount of the Letter of Credit to thirty-four million dollars (\$34,000,000.00); an amendment to the Letter of Credit dated May 1, 1995 which, among other things, extended the term of the Letter of Credit and increased the amount of the Letter of Credit to forty million dollars (\$40,000,000.00); and an amendment to the Letter of Credit dated May 1, 1996 which increased the amount of the Letter of Credit to forty-four million dollars (\$44,000,000.00). The Company has delivered to the Trustee an amendment to the Letter of Credit dated May 1, 1997 which, among other things, extends the term of the Letter of Credit and increases

the amount of the Letter of Credit to fifty-five million dollars (\$55,000,000.00) during the extended term thereof (the "Trust Amount"). It is further contemplated that the Company may deliver another amendment to the Letter of Credit which would increase the amount of the Letter of Credit to sixty million dollars (\$60,000,000.00) during the second year of the extended term thereof (the "Trust Amount" if and when so increased).

IN WITNESS WHEREOF, the parties have executed this AMENDMENT NO. 4 TO THE TRUST AGREEMENT as of the date set forth above.

AIR PRODUCTS AND CHEMICALS, INC.

Attest:

By: /s/ J. P. McAndrew  
-----  
J. P. McAndrew  
Vice President - Human Resources

/s/ Karen G. Wright  
-----  
Assistant Secretary

PNC BANK, N.A.

Attest:

By: /s/ Peter M. Van Dine  
-----  
Peter M. Van Dine  
Vice President

/s/ Ralph H. Hood  
-----

IN WITNESS WHEREOF, the undersigned Participant Representatives, effective as of the 1st day of May, 1997, have executed this Amendment No. 4 to the Trust Agreement in evidence of their consent to the amendments made thereto which are set forth above.

/s/ J. H. Agger  
-----  
J. H. Agger  
Participant Representative

/s/ L. J. Daley  
-----  
L. J. Daley  
Participant Representative

/s/ A. H. Kaplan  
-----  
A. H. Kaplan  
Participant Representative

/s/ J. P. McAndrew  
-----  
J. P. McAndrew  
Participant Representative



## AIR PRODUCTS AND CHEMICALS, INC.

## SUPPLEMENTARY SAVINGS PLAN

AMENDMENT NO. 4  
to the  
TRUST AGREEMENT

This Amendment No. 4 is made and entered into as of the 1st day of May, 1997, by and between Air Products and Chemicals, Inc. (the "Company") and PNC Bank, N.A. (previously Provident National Bank) (the "Trustee"). Capitalized terms not defined herein are defined in Article V of the Trust Agreement as such term is defined below.

WHEREAS, the Company and the Trustee entered into a Trust Agreement dated October 31, 1989 and, with the consent of the Participant Representatives, entered into Amendment Nos. 1, 2 and 3 to the Trust Agreement as of April 25, 1991, April 30, 1993 and May 1, 1995 (such Trust Agreement as so amended being referred to herein as the "Trust Agreement"), which Amendment Nos. 1, 2 and 3 reflected, among other things, the delivery to the Trustee of amendments to the Letter of Credit extending the term and changing the amount of the Letter of Credit;

WHEREAS, in view of the fact that the Letter of Credit will expire on May 18, 1997, the Company and the Trustee have determined to amend again, with the consent of the Participant Representatives, Subsection 1.01(a) of the Trust Agreement to reflect the delivery to the Trustee of an amendment to the Letter of Credit currently held by the Trustee;

NOW, THEREFORE, in consideration of the mutual agreements contained herein and for other good and valuable consideration, the parties hereto, intending to be legally bound, agree as follows:

The first paragraph of Section 1.01(a) of the Trust Agreement shall be amended to read in its entirety as follows:

Initial Establishment of the Trust and Funding of Trust Amount. The Company has established with the Trustee a trust (the "Trust") consisting of such sums of money and/or assets as from time to time shall be paid or delivered to the Trustee (less such amounts distributed from the Trust pursuant to Sections 2.02, 2.03, 2.05 and 4.02 hereof or otherwise pursuant to the terms of this Trust Agreement), in whatever form held or invested as provided herein (the "Trust Fund"). The Company, concurrently with the establishment of the Trust, delivered to the Trustee to be held in the Trust \$100.00 in cash and a "Letter of Credit", as defined in Article V hereof, in the amount of four million dollars (\$4,000,000.00). The Company delivered to the Trustee amendments dated April 18, 1991 and April 25, 1991 to the Letter of Credit, which respectively extended the term of the Letter of Credit and increased the amount of the Letter of Credit to four million five hundred thousand dollars (\$4,500,000.00). The Company subsequently delivered to the Trustee an amendment to the Letter of Credit dated April 30, 1993 which, among other things, extended the term of the Letter of Credit and increased the amount of the Letter of Credit to six million dollars (\$6,000,000.00); an amendment to the Letter of Credit dated May 1, 1995 which, among other things, extended the term of the Letter of Credit and changed the amount of the Letter of Credit to five million seven hundred and fifty thousand dollars (\$5,750,000.00); and an amendment to the Letter of Credit dated May 1, 1996 which increased the amount of the Letter of Credit to six million two hundred and fifty thousand dollars (\$6,250,000.00). The Company has delivered to the Trustee an amendment to the Letter of

Credit dated May 1, 1997 which, among other things, extends the term of the Letter of Credit and changes the amount of the Letter of Credit to six million dollars (\$6,000,000.00) during the extended term thereof (the "Trust Amount"). It is further contemplated that the Company may deliver another amendment to the Letter of Credit which would increase the amount of the Letter of Credit to six million five hundred thousand dollars (\$6,500,000.00) during the second year of the extended term thereof (the "Trust Amount" if and when so increased).

IN WITNESS WHEREOF, the parties have executed this AMENDMENT NO. 4 TO THE TRUST AGREEMENT as of the date set forth above.

AIR PRODUCTS AND CHEMICALS, INC.

Attest:

By: /s/ J. P. McAndrew  
-----  
J. P. McAndrew  
Vice President - Human Resources

/s/ Karen G. Wright  
-----  
Assistant Secretary

PNC BANK, N.A.

Attest:

By: /s/ Peter M. Van Dine  
-----  
Peter M. Van Dine  
Vice President

/s/ Ralph H. Hood  
-----

IN WITNESS WHEREOF, the undersigned Participant Representatives, effective as of the 1st day of May, 1997, have executed this Amendment No. 4 to the Trust Agreement in evidence of their consent to the amendments made thereto which are set forth above.

/s/ J. H. Agger  
-----  
J. H. Agger  
Participant Representative

/s/ L. J. Daley  
-----  
L. J. Daley  
Participant Representative

/s/ A. H. Kaplan  
-----  
A. H. Kaplan  
Participant Representative

/s/ J. P. McAndrew  
-----  
J. P. McAndrew  
Participant Representative

## AIR PRODUCTS AND CHEMICALS, INC.

## STOCK OPTION PLAN FOR DIRECTORS ( THE "PLAN")

## 1. PURPOSES OF THE PLAN

The purposes of this Plan 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. Certain capitalized terms used herein have the meanings set forth in Section 6(i) hereof.

## 2. ELIGIBILITY

Participation in the Plan 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.

## 3. AWARDS

One thousand (1,000) 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 the 1994 annual organizational meeting of the Board of Directors and immediately following each annual organizational meeting of the Board of Directors thereafter. 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 Plan. Stock Options are rights to purchase shares of common stock of the Company, par value \$1.00 ("Common Stock").

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(\* ) Adopted by Board resolution on 21 October 1993; effective 27 January 1994.

All Stock Options granted under the Plan 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.

#### 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 Options under the Plan, (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 Plan 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 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 to his or her Designated Beneficiary or by will or the laws of descent and distribution. During the lifetime of the recipient, the Stock Option shall be exercisable only by, or payable only to, as the case may be, such recipient or his or her guardian or legal representative.
- (c) All Stock Options granted under the Plan shall be evidenced by agreements in such form and containing and/or incorporating such terms and conditions as are set forth in this Plan.
- (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 Plan, 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 Plan shall be borne by the Company and not charged to any award nor to any director receiving an award.
- (h) This Plan 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 Plan 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 Plan 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 Plan 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 Plan 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 Plan; provided, however, that no amendment may affect a director's rights under any award of Stock Options under this Plan made prior to such amendment without such director's consent; this Section 6 may not be amended; and amendments to Sections 3 and 4 above may be made no more frequently than every six (6) months (other than to comport with changes in the Internal Revenue Code or the rules thereunder). The Board of Directors of the Company may suspend or discontinue this Plan in whole or in part at any time, but any such suspension or discontinuance shall not affect awards of Stock Options granted under this Plan prior thereto.

No discretion concerning decisions regarding this Plan or its administration shall be afforded to a person who is not a "disinterested person" within the meaning of Rule 16b-3 promulgated under the Act, and awards granted under this Plan are not subject to the discretion of any person.

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

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

On \_\_\_\_\_ the Company granted me an option under the Plan to purchase shares of its Common Stock at a price of \$\_\_\_\_\_ per share.

I hereby give notice of exercise of my option 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

## Exhibit 11

COMPUTATION OF EARNINGS PER SHARE  
(Millions of dollars, except per share)

	Year Ended 30 September		
	1997	1996	1995
<b>Earnings</b>			
Income before cumulative effect of accounting changes	\$429	\$416	\$368
Cumulative effect of accounting changes	--	--	--
Net income	\$429	\$416	\$368
<b>Primary shares</b>			
Average common shares outstanding during the year	110	112	112
Common stock equivalents from stock option and award plans	2	2	2
Adjusted average common shares outstanding	112	114	114
<b>Primary earnings per share</b>			
Income before cumulative effect of accounting changes	\$3.81	\$3.67	\$3.23
Cumulative effect of accounting changes	--	--	--
Net income	\$3.81	\$3.67	\$3.23
<b>Fully diluted shares</b>			
Average common shares outstanding during the year	110	112	112
Shares issuable from stock option and award plans	2	2	2
Adjusted average common shares outstanding	112	114	114
<b>Fully diluted earnings per share</b>			
Income before cumulative effect of accounting changes	\$3.81	\$3.67	\$3.23
Cumulative effect of accounting changes	--	--	--
Net income	\$3.81	\$3.67	\$3.23

Note: The above calculations are submitted in accordance with Regulation S-K Item 601(b)(11) although not required by Footnote 2 to Paragraph 14 of APB Opinion No. 15 because the dilution of earnings per share is less than 3%.

## AIR PRODUCTS AND CHEMICALS, INC., AND SUBSIDIARIES

COMPUTATION OF RATIOS OF EARNINGS TO FIXED CHARGES  
(Unaudited)

	Year Ended 30 September				
	1993	1994	1995	1996	1997
	(Millions of dollars)				
<b>EARNINGS:</b>					
Income before extraordinary item and the cumulative effect of accounting changes:	\$200.9	\$233.5	\$368.2	\$416.4	\$429.3
Add (deduct):					
Provision for income taxes	103.0	95.2	186.2	195.5	203.4
Fixed charges, excluding capitalized interest	127.3	127.1	148.8	184.0	233.0
Capitalized interest amortized during the period	7.7	8.0	9.1	9.4	8.3
Undistributed earnings of less-than- fifty-percent-owned affiliates	(8.1)	(2.8)	(25.4)	(40.6)	(31.1)
Earnings, as adjusted	\$430.8	\$461.0	\$686.9	\$764.7	\$842.9
<b>FIXED CHARGES:</b>					
Interest on indebtedness, including capital lease obligations	\$118.6	\$118.2	\$139.4	\$171.7	\$217.8
Capitalized interest	6.3	9.7	18.5	20.0	20.9
Amortization of debt discount premium and expense	.7	.8	.2	1.5	1.8
Portion of rents under operating leases representative of the interest factor	8.0	8.1	9.2	10.8	13.4
Fixed charges	\$133.6	\$136.8	\$167.3	\$204.0	\$253.9
<b>RATIO OF EARNINGS TO FIXED CHARGES:</b>					
	3.2	3.4	4.1	3.7	3.3

## 1997 FINANCIAL REVIEW

Management's Discussion  
and Analysis

2

Company Responsibility for  
Financial Statements

9

Report of Independent Public  
Accountants

9

## Consolidated Income

10

## Consolidated Balance Sheets

11

## Consolidated Cash Flows

12

## Consolidated Shareholders' Equity

13

Notes to Consolidated Financial  
Statements

14

Eleven-Year Summary of Selected  
Financial Data

32

## Major Factors Affecting Earnings\*

Major factors affecting comparison of earnings per share between 1997 and 1996 were:

- - Higher volumes in most product lines
- - Impact of Carbueros acquisition for most of year
- - Broad-based productivity gains
- - Unfavorable impact of stronger U.S. dollar
- - Higher interest expense
- - Prior-year results included favorable settlement of 1994 derivative loss (\$.36 per share)

## Changes in Earnings per Share\*

	1997	1996	Increase (Decrease)
Earnings per share.....	\$3.90	\$3.73	\$.17
Less: Derivative settlement.	--	.36	(.36)
	\$3.90	\$3.37	\$.53

## Industrial Gases and Chemicals

Carbueros ownership increase(a)	\$ .10
Volume .....	1.19
Selling price and mix .....	.32
Costs excluding depreciation .	(.86)
Depreciation .....	(.20)
Currency- and exchange-related(b)	(.19)
Equipment and Services(c) .....	.02
Corporate and Other(c) .....	.11
Equity affiliates' income(d) ....	.06
Interest expense(d) .....	(.09)
Tax items .....	.01
Lower average shares outstanding	.06
Total .....	\$ .53

- (a) Net of 100% interest expense on acquisition price
- (b) Currency and exchange impact on operating income and equity affiliates
- (c) Excluding currency-related items and equity affiliates' income
- (d) Excludes impact of Carbueros

\*See Management's Discussion and Analysis for further information.

## Results of Operations

## Consolidated

(Millions of dollars, except per share)	1997	1996	1995
Sales .....	\$4,637.8	\$4,007.7	\$3,865.3
Operating income .....	725.4	591.3	601.9
Equity affiliates' income .....	66.3	80.7	51.2
Net income .....	429.3	416.4	368.2
Earnings per share .....	3.90	3.73	3.29

Fiscal 1996 results include a \$66.8 million gain (\$40.7 million after tax, or \$.36 per share) from the settlement with Bankers Trust Company over losses reported in fiscal 1994 associated with leveraged interest rate swap contracts. The settlement included the termination of two previously closed contracts with Bankers Trust. Prior to the settlement, there was an outstanding liability of \$61.7 million associated with these closed contracts.

The company achieved record sales, net income, and earnings per share in fiscal 1997. Sales of \$4,637.8 million in fiscal 1997 were 16% above the 1996 level of \$4,007.7 million. Year-to-year operating income grew \$134.1 million, or 23%, to \$725.4 million. Equity affiliates' income declined \$14.4 million to \$66.3 million. Net income of \$429.3 million increased \$12.9 million, or 3% over the prior year. Excluding the 1996 derivative settlement gain, net income rose \$53.6 million, a 14% increase. The resulting earnings per share were \$3.90, a \$.53 increase, or 16%. The record earnings per share were obtained in spite of an unfavorable year-to-year currency impact of \$.19.

In October 1996, the company increased ownership in Carbueros Metalicos S.A. (Carbueros) from 47.6% to 96.7%. As a result of this increase in ownership, Carbueros has been included in the consolidated results for all but the first seven weeks of the current year. Previously, the company accounted for its investment using the equity method. See Note 17 to the consolidated financial statements.

Sales increased primarily due to higher volumes in most businesses and the inclusion of Carbueros in the industrial gases segment for most of the year. Volume growth coupled with broad-based productivity gains generated the 23% improvement in operating income. Equity affiliates' income included favorable results in power generation and several gases affiliates. However, overall affiliates' income declined due to the movement of Carbueros to consolidated results and the impact of the economic turmoil in Southeast Asia.

In fiscal 1996, total sales of \$4,007.7 million were 4% greater than the fiscal 1995 level of \$3,865.3 million. Year-to-year operating income declined slightly. Improved operating income results in the chemicals and equipment segments were offset by a decline in the gases segment. Total equity affiliates' income rose \$29.5 million to \$80.7 million. Equity affiliates' income doubled to \$44.0 million in the gases segment. Affiliates' income also included higher results from American Ref-Fuel. Net income increased \$48.2 million, or \$.44 per share. Excluding the derivative settlement, in fiscal 1996, net income of \$375.7 million, or \$3.37 per share, was up 2%.

## Segment Analysis

A description of the products and services and markets for each of the three business segments is included in Note 20 to the consolidated financial statements.

The segment results for fiscal 1996 and 1995 have been restated. The business to be divested (American Ref-Fuel) and the landfill gas recovery business sold in November 1996 are included in the corporate and other segment, while the continuing businesses from the former environmental and energy segment (power generation and Pure Air(TM)) are now included in the equipment and services segment.

## Industrial Gases

(Millions of dollars)	1997	1996	1995
Sales .....	\$2,673.9	\$2,310.5	\$2,177.5
Operating income .....	515.2	406.7	445.7
Equity affiliates' income.....	28.5	44.0	22.1

Sales during fiscal 1997 increased 16% to \$2,673.9 million, while operating income of \$515.2 million was up \$108.5 million, or 27% over fiscal 1996. Currency effects reduced sales and operating income growth by approximately 2%.

The consolidation of Carbueros, a leading supplier of industrial gases in Spain, contributed approximately two-thirds of the sales growth and approximately half of the operating income improvement for this segment. Previously, the company

accounted for its investment using the equity method.

Merchant volumes in both the domestic and European regions were 5% above the prior year. Merchant pricing was flat in both regions year-on-year. Worldwide tonnage gases grew 8% as a result of continued loading of recent investments, particularly hydrogen and carbon monoxide (HYCO) facilities. Additionally, higher operating income was driven by productivity gains in the domestic gases business. Worldwide gases margins improved to 19.3%, a 1.7% increase over 17.6% in fiscal 1996.



Equity affiliates' income for fiscal 1997 decreased \$15.5 million from the prior year to \$28.5 million. This decline was due to the movement of Carbueros into consolidated results, higher infrastructure costs attributed to worldwide expansion, and economic turmoil in Southeast Asia resulting in weaker Asian currencies and a customer bankruptcy.

Sales during fiscal 1996 grew 6% to \$2,310.5 million. The sales increase over the prior year was attributed to 3% higher worldwide merchant gas volumes and a 10% tonnage gases volume increase in the United States, due principally to increases in the HYCO facilities. Worldwide merchant gas prices were up approximately 2%. There was no material impact from currency changes.

Total operating income declined \$39.0 million, to \$406.7 million in fiscal 1996. Excluding a \$10.8 million gain on the sale of an idle plant in fiscal 1995, operating income declined \$28.2 million, resulting in the gases segment margin decline to 17.6% in fiscal 1996 from 20.0% in 1995. Both margins and operating income were adversely affected by an unusual clustering of major contract terminations and revisions in the United States. Lower prices and higher costs in Northern Europe also contributed to lower margins. The company brought significant new investments onstream in 1996, particularly in the expanding HYCO businesses. Margins were unfavorably impacted as these facilities began to load. Currency effects on operating income were immaterial.

Equity affiliates' income for 1996 was \$44.0 million compared to \$22.1 million in the prior year. Strong operating performances from joint ventures in Spain, Asia, and Mexico contributed to these higher results. Additionally, income increased \$6.5 million due to the higher ownership level of the Carbueros investment.

#### Chemicals

(Millions of dollars)	1997	1996	1995
Sales .....	\$1,448.1	\$1,362.3	\$1,358.8
Operating income .....	204.2	197.5	192.4
Equity affiliates' income	.4	.3	.5

Sales in 1997 increased \$85.8 million to \$1,448.1 million, while operating income increased \$6.7 million to \$204.2 million. Excluding a \$9.3 million asset impairment loss in the release agents business (sold in second quarter of fiscal 1997), operating income rose 8% to \$213.5 million. Sales and operating income increased on broad-based volume gains in most businesses with overall volumes up 5%. Productivity gains also favorably impacted current year operating income. Currency effects reduced sales growth by 1% and operating income growth by more than 5% in fiscal 1997.

Sales in 1996 of \$1,362.3 million were comparable to 1995 while operating income of \$197.5 million increased \$5.1 million. In the second quarter of fiscal 1995, a portion of the ammonia capacity was shut down and converted to hydrogen production. The 1995 sales of ammonia were \$24.5 million with operating income of \$12.0 million. Excluding the ammonia business, total chemical sales were up 2% in 1996, or \$28.0 million, and operating income was up 9%, or \$17.1 million.

The sales increase in 1996 was due primarily to the full-year impact of 1995 price increases. Overall volumes were down slightly.

Broad-based margin improvement was the major reason for the \$17.1 million increase in operating income, excluding the ammonia business. Higher selling and general and administrative costs partially offset the margin improvements. Currency changes did not have a material impact on operating income.

#### Equipment and Services

(Millions of dollars)	1997	1996	1995
Sales .....	\$514.6	\$314.6	\$309.0
Operating income .....	37.5	32.7	.3
Equity affiliates' income	13.9	8.5	4.8

Sales of \$514.6 million increased \$200.0 million over the prior year on higher sales in most product lines. Operating income increased \$4.8 million to \$37.5 million due to higher sales in the core equipment business. Sales backlog for the equipment product line improved slightly to \$310 million at 30 September 1997 compared with \$306 million at 30 September 1996. The backlog has declined from the unusually high level of \$431 million at 31 December 1996. It is expected \$237 million of the backlog will be completed during fiscal 1998. Liquid natural gas (LNG) heat exchangers are a significant factor in the high quality backlog.

Equity affiliates' income increased \$5.4 million to \$13.9 million in fiscal 1997 due to improved operations driven by lower development spending and higher power rates in the power generation business.

Fiscal 1996 sales of \$314.6 million increased \$5.6 million over the prior year while operating income increased \$32.4 million to \$32.7 million. The 1996 results reflected a more profitable project mix than in 1995 and a project buyout in the power generation business.

Equity affiliates' income of \$8.5 million increased over the prior year on

improved operating performance and the settlement of a power contract dispute. Fiscal 1995 results were reduced by weather-related power curtailments and a planned maintenance outage.

CORPORATE AND OTHER This segment includes several components: unallocated corporate income (expense); foreign exchange gains (losses); the landfill gas business sold in November of 1996; and equity affiliates' income from American Ref-Fuel.

In April 1996, the company announced the intention to sell its 50% interest in American Ref-Fuel, the waste-to-energy joint venture with Browning-Ferris Industries, Inc. In October 1997, the company entered into an agreement in principle to sell this interest to Duke Energy Power Services and United American Energy Corporation. The transaction is expected to close in December 1997. See Note 18 to the consolidated financial statements.

(Millions of dollars)	1997	1996	1995
Sales .....	\$1.2	\$20.3	\$20.0
Operating loss .....	(31.5)	(45.6)	(36.5)
Equity affiliates' income	23.5	27.9	23.8

Sales were down \$19.1 million to \$1.2 million in fiscal 1997 due to the sale of the landfill gas recovery business in November 1996. The operating loss was down \$14.1 million for the current year. Current year results include a gain of \$9.5 million on the landfill gas business sale and a gain of \$7.3 million on the partial sale of the cost basis Daido Hoxan investment. Excluding these items, the operating loss increased \$2.7 million due to foreign exchange losses offset by lower operating losses from the divested landfill gas recovery business.

Equity affiliates' income of \$23.5 million was down \$4.4 million from the prior fiscal year. During fiscal year 1997, American Ref-Fuel of Hempstead refinanced its debt which resulted in a \$4.8 million reduction in equity affiliates' income. Excluding the refinancing cost, equity affiliates' income for fiscal 1997 was comparable to the prior year.

The operating loss in fiscal 1996 increased \$9.1 million from the prior year primarily due to a foreign exchange gain in 1995 and higher net corporate general and administrative costs offset by improved operations in the landfill gas recovery business.

Equity affiliates' income increased to \$27.9 million on improved operating performance from American Ref-Fuel.

#### Settlement Gain on Leveraged Interest Rate Swaps

In January 1996, the company reached a settlement with Bankers Trust Company over the \$107.7 million of losses reported in 1994 associated with leveraged interest rate swap contracts. The \$66.8 million settlement gain (\$40.7 million after tax, or \$.36 per share) was affected, in part, by the termination of obligations stemming from two previously closed contracts. Prior to the settlement, there was an outstanding liability of \$61.7 million associated with the closed contracts.

#### Interest Expense

(Millions of dollars)	1997	1996	1995
Interest incurred .....	\$180.4	\$144.7	\$118.2
Less: Interest capitalized	19.1	15.5	17.9
Interest expense .....	\$161.3	\$129.2	\$100.3

Fiscal 1997 and 1996 interest incurred increased \$35.7 million and \$26.5 million, respectively, due to debt balances higher than the prior year. Higher debt balances were due to the capital investment program, the Carburus acquisition, and the ongoing share repurchase program. This increase was partially offset by lower interest rates.

#### Income Taxes

	1997	1996	1995
Effective tax rate	31.9%	31.7%	33.4%

The effective tax rate increased from 31.7% in fiscal 1996 to 31.9% in fiscal 1997. The effective tax rate for 1996 exclusive of the Bankers Trust settlement was 30.8%. The fiscal 1997 tax rate increased due to lower after-tax equity affiliates' income. The lower 1996 versus 1995 effective tax rate reflected higher after-tax equity affiliates' income.

#### Environmental Matters

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. 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 protection totaled \$25.7 million, \$27.1 million, and \$27.3 million for 1997, 1996, and 1995, 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 approximately \$27 million in 1998 and \$29 million in 1999.

Although precise amounts are difficult to define, the company estimates that in fiscal 1997 it spent approximately \$8 million on capital projects to control pollution (including expenditures associated with new plants) versus \$11 million in 1996. Capital expenditures to control pollution in future years are estimated at \$9 million in 1998 and \$8 million in 1999.

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 \$17 million to a reasonably possible upper exposure of \$39 million. The balance sheet at 30 September 1997 included an accrual of \$33.3 million and a receivable balance of \$.5 million related to third-party recoveries. At 30 September 1996, the balance sheet accrual was \$32.1 million and the receivable balance was \$.6 million.

In addition to the environmental exposures discussed in the preceding paragraph, there will be spending at a company-owned manufacturing site where the company is undertaking RCRA corrective action remediation. The company estimates capital costs to implement the anticipated remedial program will range from \$26 - \$33 million. Spending was \$1.4 million in fiscal 1997 and is estimated at \$9 million for fiscal 1998 and \$8 million for fiscal 1999. Operating and maintenance expenses associated with continuing the remedial program were minimal in fiscal 1997 and are estimated at \$1 million a year beginning in fiscal 1998 and will continue for an estimated period of up to 30 years. A former owner and operator at the site has agreed to reimburse the company 20% of the costs incurred in the remediation. The cost estimates have not been reduced by the value of such reimbursement, which the company believes is probable of realization.

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.

In October 1996, the American Institute of Certified Public Accountants issued Statement of Position 96-1, "Environmental Remediation Liabilities" (SOP 96-1). This statement provides guidance in applying existing accounting literature to calculating, recording, and disclosing environmental remediation liabilities. The company is required to adopt SOP 96-1 no later than fiscal 1998 and expects this new statement to have minimal impact on the financial statements.

#### Liquidity, Capital Resources, and Other Financial Data

Air Products maintained its sound financial condition throughout 1997. Strong cash flow from operations, supplemented with proceeds from debt financings, provided funding for the company's capital spending and share repurchase programs. Cash flow from operations and financing will meet liquidity needs for the foreseeable future. The company's senior debt and commercial paper continue to be rated A/A2 and A-1/P-1, respectively.

**CAPITAL EXPENDITURES** Capital expenditures in 1997 totaled \$1,221.6 million, an increase of 5% over the 1996 level. Additions to plant and equipment were largely in support of worldwide expansion of the industrial gas business. Acquisitions in 1997 included \$288.4 million (49.1% share ownership) for the third stage of the acquisition of Carbueros Metalicos. Investments in unconsolidated affiliates in 1996 included an equity investment of \$120.0 million (21.5% share ownership) in Carbueros, the second stage of the acquisition process.

(Millions of dollars)	1997	1996	1995
Additions to plant and equipment .....	\$ 870.2	\$ 951.3	\$870.3
Investments in and advances to unconsolidated affiliates .	47.2	197.2	29.1
Acquisitions .....	301.2	11.6	64.9
Capital leases .....	3.0	4.7	5.2
Total .....	\$1,221.6	\$1,164.8	\$969.5

Capital expenditures are expected to be approximately \$1.2 billion in fiscal 1998. It is anticipated these expenditures will be funded with cash from operations supplemented with proceeds from financing activities.

**FINANCING AND CAPITAL STRUCTURE** Capital needs in 1997 were satisfied with cash from operations supplemented with additional borrowings. Total debt increased \$273.2 million to \$2,468.1 million at 30 September 1997. At year end, total debt as a percentage of debt plus equity was 48% as compared to 46% at the end of 1996.

Financing activities during 1997, principally in the United States, included the public issuance of \$314.0 million of notes with maturities ranging from three to ten years and fixed coupon rates from 6.01% to 6.86% or variable rates referenced to LIBOR. Additionally, the company issued \$100.0 million of notes due in 2009 with a one-time put option exercisable by the investor after two years and \$100.0 million of notes due 2014 with a one-time put option exercisable by the investor after two and one-half years. The coupons on these notes are indexed to LIBOR to the respective put dates. The Carbueros acquisition in October 1996 was financed primarily with proceeds from U.S. dollar debt

issuances effectively converted into Spanish Peseta liabilities through the use of interest rate and currency swap contracts and foreign exchange contracts.

At year end, \$135.0 million of commercial paper was outstanding compared to \$370.0 million at the end of 1996.

Substantial credit facilities are maintained to provide backup funding for commercial paper and to ensure availability of adequate resources for corporate liquidity. At 30 September 1997, the company's revolving credit commitments amounted to \$600.0 million with funding available in 13 currencies. No borrowings were outstanding under these commitments at the end of 1997. Additional commitments totaling \$93.3 million are maintained by the company's foreign subsidiaries, of which \$5.5 million was utilized at year end.

At 30 September 1997, the company had unutilized shelf registrations for \$425.0 million of debt securities.

During 1997, 1.9 million shares of the company's outstanding common stock were repurchased at a cost of \$135.0 million. During 1996, 1.8 million shares were repurchased at a cost of \$100.3 million.

**FINANCIAL INSTRUMENTS** The company enters into contractual agreements in the ordinary course of business to hedge its exposure to interest rate and foreign currency risks. Counterparties to these agreements are major financial institutions. Management believes the risk of incurring losses related to credit risk is remote and any losses would be immaterial.

Interest rate swap agreements are used to reduce interest rate risks and costs inherent in the company's debt portfolio. The company enters into these agreements to change the fixed/variable interest rate mix of the debt portfolio in order to maintain the percentage of fixed and variable debt within certain parameters set by management. Accordingly, the company enters into agreements to both effectively convert variable-rate debt to fixed-rate debt and to effectively convert its fixed-rate debt into variable-rate debt which is principally indexed to LIBOR rates. The company has also entered into interest rate swap contracts to effectively convert the stated variable rates to interest rates based on LIBOR.

The company is also party to interest rate and currency 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 at inception and 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 lending activities and the value of investments in certain foreign subsidiaries and affiliates.

The company, in management of its exposure to fluctuations in foreign currency exchange rates, has entered into a variety of foreign exchange contracts, including forward, option combination, and purchased option contracts. These agreements generally involve the exchange of one currency for a second currency at some future date. The company enters into forward exchange and option combination contracts to reduce the exposure to foreign currency fluctuations associated with certain monetary assets and liabilities, as well as certain firm commitments and highly anticipated cash flows. The company is also party to purchased option contracts which, if exercised, involve the sale or purchase of foreign currency at a fixed exchange rate for a specified period of time. These contracts are used to hedge firm commitments and certain highly anticipated cash flows, including export sales transactions.

Additional details on these and other financial instruments are set forth in Notes 3, 5, and 6 to the consolidated financial statements and in the Financial Instruments Sensitivity Analysis.

**WORKING CAPITAL** Working capital (excluding cash and cash items, short-term borrowings, and current portion of long-term debt) was \$623.6 million, up \$134.8 million over the \$488.8 million at the end of 1996. Excluding the impact of the Carbueros consolidation, working capital increased \$81.6 million due mainly to an increase in trade receivables on higher fiscal 1997 sales.

Working capital was \$488.8 million at the end of 1996 versus \$420.8 million at the end of 1995. Trade receivables increased 7% on an overall sales increase of 4%. Inventories and contracts in progress grew 6%. Current liabilities decreased due to a reduction of \$16.0 million in accrued taxes.

**DIVIDENDS** In May 1997, the Board of Directors increased the quarterly cash dividend to 30.0 cents per share, an increase of 9%. Dividends are declared by the Board of Directors and, when declared, usually will be paid during the sixth week after the close of the fiscal quarter.

**NEW ACCOUNTING STANDARDS** In March of 1997, the FASB issued Statement of Financial Accounting Standards (SFAS) No. 128, "Earnings per Share." This standard establishes new accounting and disclosure for earnings per share (EPS). The standard will be effective for the first quarter of fiscal 1998 with earlier application not permitted. The EPS as currently reported is the same as the Basic EPS required by the standard. The newly required Diluted EPS is not expected to be materially different than the Basic EPS, with historical levels approximately 2% dilutive. Also in March 1997, the FASB issued SFAS No. 129, "Disclosure of Information about Capital Structure." This standard does not change the currently reported disclosures.

The FASB issued Statement of Financial Accounting Standards (SFAS) No. 130, "Reporting Comprehensive Income," and SFAS No. 131, "Disclosures about Segments of an Enterprise and Related Information," in June of 1997. These standards establish new disclosures for comprehensive income and segments and will be effective for fiscal 1999. New disclosures will include a comprehensive income number, operating segments in accordance with internal management structure, and geographic sales by destination rather than source.

**PENSION PLAN FUNDING** The funding policy for pension plans is to accumulate plan assets that, over the long run, will approximate the present value of projected benefits payable. In fiscal 1997, the company contributed \$10.7 million compared to \$51.6 million in fiscal 1996. The company expects to make contributions of approximately \$11 to \$15 million in fiscal 1998.

**EXCHANGE RATE FLUCTUATIONS** Exchange rate fluctuations can be a significant variable for international operations, especially fluctuations in local currencies where hedging opportunities are unreasonably expensive, or unavailable. In the fourth quarter of fiscal 1997, several Asian currencies deteriorated against the dollar and continue to be an uncertainty for fiscal 1998.

**ENERGY PRICING** Air Products has a 50% ownership interest and serves as the operator of a cogeneration facility which burns coal to produce electricity and steam. This facility has a twenty-year power sale contract. During the final ten years of the original contract, which begins during fiscal 1998, the electricity rate paid by the customer will be based on short-term avoided costs. Natural gas pricing has declined since the start-up of this facility; this will lower the electricity rates paid by the customer in years 1998 through 2008. Equity affiliates' income and operating income for the equipment and services segment will decrease by approximately \$2 million and \$7 million, respectively. In fiscal 1999, equity affiliates' income and operating income will decline by an additional \$2 million and \$6 million, respectively, versus 1998.

**INFLATION** The financial statements are presented on a historical cost basis 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 international areas with both inflation and currency issues. The ability to pass on inflation costs 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.

**YEAR 2000** The company recognizes the need to ensure that its operations will not be adversely impacted by Year 2000 software failures. Software failures due to processing errors potentially arising from calculations using the Year 2000 date are a known risk. The company is addressing the Year 2000 financial and operating systems risk by establishing processes for evaluating and managing the risks associated with this problem. In 1996, the company's computing portfolio was assessed and specific plans were initiated to ensure Year 2000 compliance on mission-critical systems by 1999. The plans involve software replacement, retirement, and/or renovation. Over fiscal years 1996 and 1997, approximately \$1.2 million was expended in system modification and testing by internal company staff and contractors. The total cost of achieving Year 2000 compliance is estimated to be approximately \$18 million over the cost of normal software upgrades and replacements.

**FORWARD-LOOKING STATEMENTS** The forward-looking statements contained in this report are based on current expectations regarding important risk factors. Actual results may differ materially from those expressed. Important risk factors and uncertainties include the impact of worldwide economic growth, pricing, and other factors resulting from fluctuations in foreign currencies; the impact of competitive products and pricing; the timing of the American Ref-Fuel divestiture; continued success of productivity programs; and the impact of tax and other legislation and other regulations in the jurisdictions in which the company and its affiliates operate.

#### Financial Instruments Sensitivity Analysis

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 utilizing a third-party software model which utilizes standard pricing models to determine the present value of the instruments based on the market conditions (interest rates, spot and forward exchange rates, and implied volatilities) as of the valuation date. The market values for equity price risk are calculated by the financial institution which is the counterparty to the interest rate swaps which include an equity index, based upon this financial institution's internal policies governing such calculations and market factors which this financial institution believes to be relevant. All instruments are entered into for other than trading purposes. The utilization of these instruments is described more fully in the financial instruments section of the Management's Discussion and Analysis and Notes 3, 5, and 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, interest rate and currency 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. At 30 September 1997, the net financial instrument position is a liability of \$2,436.9 million.

**INTEREST RATE RISK** The sensitivity analysis assumes an instantaneous 100 basis point move in interest rates from their levels of 30 September 1997, with all other variables (including equity prices and foreign exchange rates) held constant. A 100 basis point increase in market interest rates would result in a \$104 million decrease in the net financial instrument position. A 100 basis point decrease in market interest rates would result in a \$114 million increase in the net financial instrument position.



The company's debt portfolio, including interest rate swap agreements, as of 30 September 1997 is composed primarily of debt denominated in U.S. dollars (68%). The primary currencies of non-U.S. dollar debt are British Pounds, Netherland Guilders, Spanish Pesetas, and Canadian Dollars. Based on the composition of the company's debt portfolio, including interest rate swap agreements, as of 30 September 1997, a 100 basis point increase in interest rates would result in an additional \$9 million in interest incurred per year. A 100 basis point decline would lower interest incurred by \$9 million per year.

**EQUITY PRICE RISK** The sensitivity analysis assumes an instantaneous 10% change in the Standard & Poor's 500 Index from its level of 30 September 1997, with all other variables (including interest rates and foreign exchange rates) held constant. The equity price risk within the company's financial instruments is equal and offsetting for all movements in equity prices. There is no impact on the net financial instrument position.

**FOREIGN CURRENCY EXCHANGE RATE RISK** The sensitivity analysis assumes an instantaneous 10% change in the foreign currency exchange rates from their levels of 30 September 1997, with all other variables (including interest rates and equity prices) held constant. A 10% strengthening of the U.S. dollar versus all other currencies would result in a decrease of \$95 million in the net financial instrument position. A 10% weakening of the U.S. dollar versus all other currencies would result in an increase of \$88 million in the net financial instrument position.

The primary currencies for which the company has foreign currency exchange rate exposure are the U.S. dollar versus the British Pound, Netherland Guilder, Spanish Peseta, Canadian Dollar, and German Mark. Foreign currency debt and interest rate and currency swaps are used in countries where it does business, thereby reducing the company's net asset exposure. Foreign exchange forward and option contracts are used to hedge the company's firm and highly anticipated foreign currency cash flows. Thus, there is either an asset or cash flow exposure related to all 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 substantially equal to the impact on the instruments in the analysis.

## COMPANY RESPONSIBILITY FOR FINANCIAL STATEMENTS

The accompanying consolidated financial statements have been prepared by the company. They conform with generally accepted accounting principles and reflect judgments and estimates as to the expected effects of incomplete transactions and events being accounted for currently. The company believes that the accounting systems and related controls that it maintains are sufficient to provide reasonable assurance that assets are safeguarded, transactions are appropriately authorized and recorded, and the financial records are reliable for preparing such financial statements. The concept of reasonable assurance is based on the recognition that the cost of a system of internal accounting controls must be related to the benefits derived. The company maintains an internal audit function which is responsible for evaluating the adequacy and application of financial and operating controls and for testing compliance with company policies and procedures.

The independent public accountants are engaged to perform an audit of the consolidated financial statements in accordance with generally accepted auditing standards. Their report follows.

The Audit Committee of the Board of Directors is comprised entirely of individuals who are not employees of the company. This Committee meets periodically with the independent public accountants, the internal auditors, and management to consider audit results and to discuss significant internal accounting control, auditing, and financial reporting matters. The Audit Committee recommends the selection of the independent public accountants who are then appointed by the Board of Directors subject to ratification by the shareholders.

HAROLD A. WAGNER  
CHAIRMAN, PRESIDENT,  
AND CHIEF EXECUTIVE OFFICER

ARNOLD H. KAPLAN  
SENIOR VICE PRESIDENT - FINANCE  
AND CHIEF FINANCIAL OFFICER

4 NOVEMBER 1997

## REPORT OF INDEPENDENT PUBLIC ACCOUNTANTS

To the Shareholders and Board of Directors, 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 1997 and 1996, and the related consolidated statements of income, cash flows, and shareholders' equity for each of the three years in the period ended 30 September 1997. These 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 generally accepted auditing standards. Those standards require that we plan and perform the audit 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 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 1997 and 1996, and the results of their operations and their cash flows for each of the three years in the period ended 30 September 1997, in conformity with generally accepted accounting principles.

As discussed in Note 2 to the consolidated financial statements, effective 1 October 1994, Air Products and Chemicals, Inc. changed its method of accounting for certain investments in debt and equity securities.

ARTHUR ANDERSEN LLP  
PHILADELPHIA, PENNSYLVANIA

4 NOVEMBER 1997

## CONSOLIDATED INCOME

(Millions of dollars, except per share)  
Year Ended 30 September

	1997	1996	1995
<b>Sales and Other Income</b>			
Sales (Note 1) .....	\$4,637.8	\$4,007.7	\$3,865.3
Other income, net (Note 19) .....	24.2	25.7	25.5
	4,662.0	4,033.4	3,890.8
<b>Costs and Expenses</b>			
Cost of sales .....	2,771.6	2,408.1	2,317.0
Selling, distribution, and administrative .....	1,051.3	919.9	868.7
Research and development .....	113.7	114.1	103.2
	725.4	591.3	601.9
Operating Income .....	66.3	80.7	51.2
Income from equity affiliates net of related expenses (Note 8) .	--	66.8	--
Settlement gain on leveraged interest rate transactions (Note 6)	161.3	129.2	100.3
Interest expense (Note 1) .....			
	630.4	609.6	552.8
Income Before Taxes .....	201.1	193.2	184.6
Income taxes (Notes 1 and 10) .....			
Net Income .....	\$429.3	\$416.4	\$368.2
Monthly Average of Common Shares Outstanding (in millions) .....	110.0	111.7	112.1
Earnings per Common Share .....	\$3.90	\$3.73	\$3.29

The accompanying notes are an integral part of these statements.

## CONSOLIDATED BALANCE SHEETS

(Millions of dollars, except per share)

30 September	1997	1996
<b>Assets</b>		
<b>Current Assets</b>		
Cash and cash items (Note 1) .....	\$ 52.5	\$ 78.7
Trade receivables, less allowances for doubtful accounts of \$19.8 in 1997 and \$13.3 in 1996 .....	879.6	670.0
Inventories (Notes 1 and 7) .....	386.5	371.1
Contracts in progress, less progress billings .....	121.3	115.2
Other current assets .....	184.4	139.7
<b>Total Current Assets</b> .....	<b>1,624.3</b>	<b>1,374.7</b>
<b>Investments (Notes 1, 3, and 8)</b>		
Investment in net assets of and advances to equity affiliates .....	555.7	759.4
Other investments and advances .....	21.1	74.2
<b>Total Investments</b> .....	<b>576.8</b>	<b>833.6</b>
<b>Plant and Equipment, at cost (Notes 1, 4, 12, and 15)</b> .....		
Less -- Accumulated depreciation .....	4,286.1	4,144.1
<b>Plant and Equipment, net</b> .....	<b>4,441.2</b>	<b>3,958.5</b>
<b>Goodwill (Note 1)</b> .....		
Other Noncurrent Assets .....	248.6	83.5
<b>Total Assets</b> .....	<b>\$7,244.1</b>	<b>\$6,522.4</b>
<b>Liabilities and Shareholders' Equity</b>		
<b>Current Liabilities</b>		
Payables, trade and other (Note 19) .....	\$ 616.6	\$ 526.4
Accrued liabilities (Note 19) .....	315.7	241.1
Accrued income taxes .....	15.9	39.7
Short-term borrowings (Note 19) .....	100.9	423.2
Current portion of long-term debt (Note 4) .....	75.5	33.1
<b>Total Current Liabilities</b> .....	<b>1,124.6</b>	<b>1,263.5</b>
<b>Long-Term Debt (Notes 4 and 15)</b> .....		
<b>Deferred Income and Other Noncurrent Liabilities</b> .....	<b>449.7</b>	<b>363.5</b>
Deferred Income Taxes (Notes 1 and 10) .....	730.0	582.2
<b>Total Liabilities</b> .....	<b>4,596.0</b>	<b>3,947.8</b>
<b>Shareholders' Equity (Notes 1, 9, and 11)</b>		
Common Stock (par value \$1 per share; issued 1997 and 1996 - 124,727,792 shares) .....	124.7	124.7
Capital in excess of par value .....	453.0	461.2
Retained earnings .....	2,990.2	2,687.2
Unrealized gain on investments (Note 2) .....	6.9	40.4
Cumulative translation adjustments .....	(186.1)	(70.2)
Treasury Stock, at cost (1997 - 5,188,676 shares; 1996 - 4,212,761 shares) .....	(297.3)	(211.2)
Shares in trust (1997 - 9,687,560 shares; 1996 - 10,000,000 shares) .....	(443.3)	(457.5)
<b>Total Shareholders' Equity</b> .....	<b>2,648.1</b>	<b>2,574.6</b>
<b>Total Liabilities and Shareholders' Equity</b> .....	<b>\$7,244.1</b>	<b>\$6,522.4</b>

The accompanying notes are an integral part of these statements.

## CONSOLIDATED CASH FLOWS

(Millions of dollars)  
Year Ended 30 September

	1997	1996	1995
<b>Operating Activities</b>			
Net income	\$429.3	\$416.4	\$368.2
Adjustments to reconcile income to cash provided by operating activities:			
Depreciation (Note 1)	459.1	412.1	382.2
Impairment loss of long-lived assets	9.3	--	--
Termination of liabilities for leveraged interest rate swaps (Note 6)	--	(61.7)	--
Deferred income taxes (Note 10)	94.1	87.5	65.4
Other	(.4)	(50.4)	(18.9)
Working capital changes that provided (used) cash, net of effects of acquisitions:			
Trade receivables	(151.8)	(53.0)	(64.2)
Inventories and contracts in progress	(13.3)	(28.6)	(58.3)
Payables, trade and other	84.2	3.2	20.7
Accrued liabilities	43.6	20.6	13.2
Other	79.2	9.8	10.6
<b>Cash Provided by Operating Activities</b>	<b>1,033.3</b>	<b>755.9</b>	<b>718.9</b>
<b>Investing Activities</b>			
Additions to plant and equipment(a)	(870.2)	(951.3)	(870.3)
Acquisitions, less cash acquired(b)	(300.1)	(6.4)	(46.5)
Investment in and advances to unconsolidated affiliates	(47.2)	(197.2)	(29.1)
Termination/closure of leveraged interest rate swaps (Note 6)	--	--	(5.9)
Proceeds from sale of assets and investments	97.6	63.2	33.6
Other	17.0	11.8	1.9
<b>Cash Used for Investing Activities</b>	<b>(1,102.9)</b>	<b>(1,079.9)</b>	<b>(916.3)</b>
<b>Financing Activities</b>			
Long-term debt proceeds(a)	667.5	626.7	361.0
Payments on long-term debt	(168.3)	(168.0)	(151.8)
Net increase (decrease) in commercial paper	(235.0)	42.4	179.6
Net increase in other short-term borrowings	6.7	11.7	14.6
Dividends paid to shareholders	(123.8)	(116.7)	(115.3)
Purchase of Treasury Stock (Note 9)	(135.0)	(100.3)	(124.1)
Other	31.4	20.3	17.8
<b>Cash Provided by Financing Activities</b>	<b>43.5</b>	<b>316.1</b>	<b>181.8</b>
Effect of Exchange Rate Changes on Cash	(0.1)	(0.9)	3.2
Decrease in Cash and Cash Items	(26.2)	(8.8)	(12.4)
Cash and Cash Items -- Beginning of Year	78.7	87.5	99.9
Cash and Cash Items -- End of Year (Note 1)	\$52.5	\$78.7	\$87.5

The accompanying notes are an integral part of these statements.

(a) Excludes capital leases of \$3.0 million, \$4.7 million, and \$5.2 million in 1997, 1996, and 1995, respectively.

(b) Excludes debt of \$1.1 million, \$5.2 million, and \$18.4 million to former shareholders of companies acquired in 1997, 1996, and 1995, respectively.

## CONSOLIDATED SHAREHOLDERS' EQUITY

(Millions of dollars, except per share)

Year Ended 30 September	1997	1996	1995
<b>Common Stock</b>			
Balance, Beginning and End of Year .....	\$124.7	\$124.7	\$124.7
<b>Capital in Excess of Par Value</b>			
Balance, Beginning of Year .....	461.2	465.9	477.6
Issuance of Treasury Shares and Shares in Trust for benefit and stock option and award plans, 1,254,990 shares in 1997, 625,308 shares in 1996, and 961,794 shares in 1995 .....	(26.8)	(13.0)	(21.5)
Tax benefit of stock option and award plans .....	18.6	8.3	9.8
Balance, End of Year .....	453.0	461.2	465.9
<b>Retained Earnings</b>			
Balance, Beginning of Year .....	2,687.2	2,387.6	2,134.7
Net income .....	429.3	416.4	368.2
Cash dividends -- Common Stock, \$1.15 per share in 1997, \$1.07 per share in 1996, and \$1.01 per share in 1995 .....	(126.3)	(116.8)	(115.3)
Balance, End of Year .....	2,990.2	2,687.2	2,387.6
<b>Unrealized Gain on Investments (Note 2)</b>			
Balance, Beginning of Year .....	40.4	41.0	--
Adjustment to 1995 beginning balance for change in accounting method, net of income taxes of \$22.8 .....	--	--	41.5
Change in unrealized gain, net of income taxes of \$18.4 in 1997, \$0.3 in 1996, and \$0.3 in 1995 .....	(33.5)	(.6)	(.5)
Balance, End of Year .....	6.9	40.4	41.0
<b>Cumulative Translation Adjustments</b>			
Balance, Beginning of Year .....	(70.2)	(24.0)	(16.1)
Translation adjustments, net of income tax benefits of \$8.7 in 1997, \$1.7 in 1996, and \$29.1 in 1995 .....	(115.9)	(46.2)	(7.9)
Balance, End of Year .....	(186.1)	(70.2)	(24.0)
<b>Treasury Stock</b>			
Balance, Beginning of Year .....	(211.2)	(139.1)	(57.0)
Issuance of Treasury Shares for benefit and stock option and award plans, 942,550 shares in 1997, 625,308 shares in 1996, and 961,794 shares in 1995 .....	48.9	28.2	42.0
Purchase of Treasury Shares, 1,918,465 in 1997, 1,793,600 in 1996, and 2,687,300 in 1995 (Note 9) .....	(135.0)	(100.3)	(124.1)
Balance, End of Year .....	(297.3)	(211.2)	(139.1)
<b>Shares in Trust (Note 1)</b>			
Balance, Beginning of Year .....	(457.5)	(457.5)	(457.5)
Issuance of 312,440 shares in 1997 for benefit and stock option and award plans .....	14.2	--	--
Balance, End of Year .....	(443.3)	(457.5)	(457.5)
<b>Total Shareholders' Equity .....</b>	<b>\$2,648.1</b>	<b>\$2,574.6</b>	<b>\$2,398.6</b>

The accompanying notes are an integral part of these statements.

## 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 equity method of accounting is used when the company has a 20% to 50% interest in other companies. 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.

**RECLASSIFICATION** Certain amounts in 1996 and 1995 have been reclassified to conform to current year presentation.

**LONG-TERM EQUIPMENT AND CONSTRUCTION REVENUE** Revenues from equipment sale contracts are recorded primarily using the percentage-of-completion method. Under this method, revenues for sale of major equipment, such as Liquid Natural Gas and Air Separation units, are recognized primarily based on labor costs incurred to date compared with total estimated labor costs. The equipment sold for the company's power generation and Pure Air(TM) flue gas treatment facilities recognizes revenues based primarily on contract costs incurred to date compared with total estimated contract costs. Changes to total estimated labor or contract costs and anticipated losses, if any, are recognized in the period determined.

**DEPRECIATION** In the financial statements, the straight-line method of depreciation is used which deducts equal amounts of the cost of each asset from earnings every year over its expected useful life. The following table shows the estimated useful lives of different types of assets:

Classification	Expected Useful Lives
Buildings and components	5 to 45 years (principally 30 years)
Gas generating and chemical facilities, machinery and equipment	3 to 25 years (principally 11 to 20 years)

**CAPITALIZED INTEREST** As the company builds new plant and equipment or invests in unconsolidated affiliates in the development stage, it includes in the cost of these assets a portion of the interest payments it makes during the year. In 1997, the amount of capitalized interest was \$19.1 million. In 1996, it was \$15.5 million, and in 1995, \$17.9 million.

**INTEREST RATE SWAP AGREEMENTS** The company enters into interest rate swap agreements to reduce interest rate risks and to modify the interest rate characteristics of its outstanding debt. These agreements involve the exchange of fixed- and floating-rate interest payments periodically over the life of the agreement without the exchange of the underlying principal amounts. The net amount to be paid or received is accrued as interest rates change and recognized over the life of the agreements as an adjustment to interest expense. The fair value of these swap agreements is not recognized in the financial statements. The notional amount of these agreements is equal to or less than the designated debt instrument being hedged. The variable rate bases of the swap instruments and the debt to which they are designated are the same. The company will not enter into any future 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 interest rate and currency 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 a specified future date. The contracts are used to hedge intercompany lending transactions and the value of investments in certain foreign subsidiaries and affiliates. Gains and losses on the currency component of these contracts, which hedge intercompany lending transactions, are recognized in income and offset the foreign exchange gains and losses of the related transaction. Gains and losses on the currency component of these contracts which hedge investments in certain foreign subsidiaries and foreign equity affiliates are not included in the income statement but are shown in the cumulative translation adjustments account. The interest component of these contracts is accounted for similarly to other interest rate swap agreements.

Gains and losses on terminated interest rate swap agreements are amortized into income over the remaining life of the underlying debt obligation or the remaining life of the original swap, if shorter.

**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.

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 the cumulative translation adjustments account in the shareholders' equity section of the balance sheet. Certain forward exchange contracts are used to hedge the value of investments in certain subsidiaries and equity affiliates. Gains and losses on the currency component of these contracts are not included in the income statement but are shown in the cumulative translation adjustment account.

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 of the company and its subsidiaries are made in currencies different from their own. Gains and losses from these foreign currency transactions are generally included in income as they occur. The company enters into forward exchange and option combination contracts to manage the exposure to foreign currency fluctuations associated with certain monetary assets and liabilities denominated in a foreign currency as well as certain highly anticipated cash flows. Gains and losses on these contracts are recognized in income and offset the foreign exchange gains and losses of the related transaction.

Forward exchange and option combination contracts are sometimes used to hedge firm commitments, such as the purchase of plant and equipment, and purchased foreign currency options are sometimes used to hedge firm commitments and certain highly anticipated cash flows, including export sales transactions. The contracts are designated as, and effective as, hedges. The significant characteristics and expected terms of the highly anticipated cash flows are indetified. Gains and losses resulting from these agreements are deferred and reflected as adjustments of the related foreign currency transactions. Gains and losses on terminated contracts, for which hedge criteria are met, are deferred and recognized as an adjustment of the related foreign currency transaction.

**ENVIRONMENTAL EXPENDITURES** Accruals for investigatory 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. While the current law potentially imposes joint and several liability upon each party at any Superfund site, the company's contribution to clean up these sites is expected to be limited, given the number of other companies which have also been named as potentially responsible parties and the volumes of waste involved. A reasonable basis for apportionment of costs among responsible parties is determined and the likelihood of contribution by other parties is established. If it is considered probable that the company will only have to pay its expected share of the total site cleanup, the liability reflects the company's expected share. In determining the probability of contribution, the company considers the solvency of the parties, whether responsibility is being disputed, the terms of any existing agreements, and experience to date regarding similar matters. These liabilities do not take into account any claims for recoveries from insurance or third parties 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 which 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.

**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.

**INVENTORIES** To determine the cost of chemical inventories and some gas and equipment inventories in the United States, the company uses the last-in, first-out (LIFO) method. This method assumes the most recent cost is closer to the cost of replacing an item that has been sold. During periods of rising prices, LIFO maximizes the cost of goods sold and minimizes the profit reported on the company's income statement.

All other inventory values are determined using the first-in, first-out (FIFO) method. Cost of an item sold is based on the first item produced or on the current market value, whichever is lower.

**GOODWILL** When a company is acquired, the difference between the fair value of its net assets and the purchase price is goodwill. Goodwill is recorded as an asset on the balance sheet and is amortized into income over periods not exceeding 40 years. The company assesses the impairment of goodwill related to consolidated subsidiaries in accordance with Statement of Financial Accounting Standards (SFAS) No. 121. The measurement of an impairment loss of goodwill related to equity affiliates is based on expected undiscounted future cash flows, as the investment in equity affiliates is excluded from the scope of SFAS No. 121.

**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 are 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.

ESTIMATES AND ASSUMPTIONS The preparation of financial statements in conformity with generally accepted accounting principles 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.

## 2 Accounting and Disclosure Changes

Effective fiscal 1997, the company adopted SFAS No. 123, "Accounting for Stock-Based Compensation." This statement establishes financial and reporting standards for stock-based employee compensation plans using a fair value-based method. As permitted under SFAS No. 123, the company has elected to continue to account for compensation cost using the intrinsic value-based method of accounting as prescribed by Accounting Principles Board (APB) Opinion No. 25, "Accounting for Stock Issued to Employees." The company has included disclosures of the pro forma impact on net income of the application of the fair value-based method of accounting in Note 11.

Effective 1 October 1994, the company adopted SFAS No. 115, "Accounting for Certain Investments in Debt and Equity Securities." A certain investment in marketable equity securities is reported at fair value with the unrealized gain on an after-tax basis recorded in a separate component of shareholders' equity. The aggregate fair value of this equity security was \$20.0 million and \$73.9 million at 30 September 1997 and 1996. During the current year, approximately 18% of this investment was sold, causing a \$7.3 million realized gain to be recognized. The gross unrealized holding gain was \$10.8 million and \$62.7 million at 30 September 1997 and 1996.

## 3 Fair Value of Financial Instruments

Summarized below are the carrying values and fair values of the company's financial instruments as of 30 September 1997 and 1996.

The fair value of the company's debt, interest rate swap agreements, forward exchange contracts, option combination contracts, and purchased foreign currency options is 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 fair values of these instruments is generally performed by the company. The fair value of other investments is based principally on quoted market prices. The carrying amounts reported in the balance sheet for cash and cash items, 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 table below.

(Millions of dollars) 30 September	1997		1996	
	Carrying Value	Fair Value	Carrying Value	Fair Value
<b>Assets</b>				
Other investments .....	\$21.1	\$21.1	\$74.2	\$74.2
Currency option contracts (Note 5) .....	1.5	2.6	7.2	3.2
Interest rate swap agreements (Note 6) .....	69.5	85.7	19.7	13.2
Forward exchange contracts (Note 5) .....	2.8	10.2	1.5	2.3
<b>Liabilities</b>				
Long-term debt, including current portion (Note 4)	\$2,367.2	\$2,535.4	\$1,771.7	\$1,839.8

## 4 Long-Term Debt

The following table shows the company's outstanding debt at the end of fiscal 1997 and 1996, excluding any portion of the debt required to be repaid within a year:

(Millions of dollars)  
30 September

	1997	1996
Payable in U.S. dollars:		
8 7/8% notes, due 2001 .....	\$ 100.0	\$ 100.0
Medium-term notes, Series C, due through 2001, weighted average interest rate 10.8% .....	126.0	166.0
8.35% debentures, due 2002, effective interest rate 8.4% .....	100.0	100.0
6 1/4% notes, due 2003 .....	100.0	100.0
Medium-term notes, Series B, due through 2003, weighted average interest rate 6.1% .....	16.0	51.0
Commercial paper, due 2001 to 2003, weighted average interest rate 5.7% .....	80.5	--
7 3/8% notes, due 2005, effective interest rate 7.5% .....	150.0	150.0
8 1/2% debentures, due 2006, callable by company in 2004, effective interest rate 8.6% ..	100.0	100.0
7.578% notes, due 2006 .....	72.5	19.1
Medium-term notes, Series F, due through 2014, weighted average interest rate 5.4% .....	375.0	--
Medium-term notes, Series D, due through 2016, weighted average interest rate 6.8% .....	400.0	311.0
8 3/4% debentures, due 2021, effective interest rate 9.0% .....	100.0	100.0
Medium-term notes, Series E, due through 2026, interest rate 7.3% .....	300.0	250.0
California Pollution Control bonds, due 2027, weighted average interest rate of 5.8% ....	57.0	--
Other, due through 2023, weighted average interest rate 6.2% .....	47.1	33.5
Payable in foreign currency:		
9 1/2% British Pound notes, due 1997 .....	--	71.1
8.27% British Pound loan, due 1999 .....	35.5	34.4
9.2% Deutsche Mark loan, due through 2002 .....	7.7	10.7
5.97% Dutch Guilder loan, due through 2006 .....	60.3	70.0
Belgian Franc loans, due through 2006, weighted average interest rate 5.5% .....	26.6	37.1
Other, due through 2003, weighted average interest rate 5.8% .....	15.7	11.6
Less: Unamortized discount .....	(4.9)	(5.3)
	2,265.0	1,710.2
Capital lease obligations:		
United States, due through 2003, weighted average interest rate 6.7% .....	5.3	6.0
Foreign, due through 2004, weighted average interest rate 7.6% .....	21.4	22.4
	26.7	28.4
	\$2,291.7	\$1,738.6

Various debt agreements to which the company is a party include certain financial covenants and restrictions pertaining to the ability to create property liens and enter into certain sale and leaseback transactions.

The company has obtained the commitment of a number of commercial banks to lend money at market rates whenever needed by the company. These committed lines of credit also are used to support the issuance of commercial paper. In January 1996, the company entered into a \$600.0 million committed, multi-currency, syndicated credit facility which matures in January 2002. No borrowings were outstanding under this facility at 30 September 1997. At 30 September 1997, foreign subsidiaries had additional committed credit lines of \$93.3 million, \$5.5 million of which was borrowed and outstanding.

Maturities of long-term debt in each of the next five years are as follows: \$75.5 million in 1998; \$102.3 million in 1999; \$209.5 million in 2000; \$170.9 million in 2001; and \$157.0 million in 2002.

Included in the medium-term notes, Series E, is a \$100.0 million note, due in 2026, with a one-time put option exercisable by the investor in 2008. Included in the medium-term notes, Series F, is a \$100.0 million note, due in 2009, with a one-time put option exercisable by the investor in 1999 and a \$100.0 million note, due in 2014, with a one-time put option exercisable by the investor in 1999.

## 5 Foreign Exchange Contracts

The company, in management of its exposure to fluctuations in foreign currency exchange rates, has entered into a variety of foreign exchange contracts, including forward, option combination, and purchased option contracts. These agreements generally involve the exchange of one currency for a second currency at some future date. Counterparties to these agreements are major international financial institutions. The company's counterparty credit guidelines and management's position regarding possible exposure to losses related to credit risk is comparable to that for interest rate swap agreements as discussed in Note 6.

The company enters into forward exchange and option combination contracts to reduce the exposure to foreign currency fluctuations associated with certain monetary assets and liabilities, as well as certain firm commitments and highly anticipated cash flows. The company is also party to purchased option contracts which, if exercised, involve the sale or purchase of foreign currency at a fixed exchange rate for a specified period of time. These contracts are used to hedge firm commitments and certain highly anticipated cash flows, including export sales transactions, through fiscal 1998.

The table below illustrates the U.S. dollar equivalent, including offsetting positions, of foreign exchange contracts at 30 September 1997 and 1996 along with maturity dates, net unrealized gain (loss), and net unrealized gain (loss) deferred. At the end of fiscal 1997, all material exposures to foreign currency fluctuations resulting from cash flows being denominated in a currency other than an entity's functional currency anticipated over the next year are hedged by forward exchange, option combination, or purchased option contracts.

(Millions of dollars)	Contract Amount (\$U.S. Equivalent)	Latest Maturity Date	Unrealized Gross Gain	Unrealized Gross (Loss)	Net Unrealized Gain (Loss)	Net Unrealized Gain (Loss) Deferred
<b>30 September 1997</b>						
Forward exchange contracts:						
\$U.S./Netherlands DG .....	\$ 164.9	1998	\$ 3.8	\$ (.5)	\$ 3.3	\$ --
\$U.S./U.K. Pound Sterling .....	78.9	1998	.2	(.3)	(.1)	(.1)
\$U.S./\$ Canadian .....	63.5	1999	1.1	(.7)	.4	.5
Netherlands DG/U.K. Pound Sterling	48.3	1998	4.2	--	4.2	4.2
Other .....	177.8	1998	3.5	(1.1)	2.4	2.8
	533.4		12.8	(2.6)	10.2	7.4
Option contracts:						
\$U.S./German DM .....	78.3	1998	.5	--	.5	.5
\$U.S./U.K. Pound Sterling .....	25.8	1998	--	--	--	--
\$U.S./Japanese Yen .....	19.2	1998	.4	--	.4	.4
Other .....	35.7	1998	.2	--	.2	.2
	159.0		1.1	--	1.1	1.1
	\$ 692.4		\$ 13.9	\$ (2.6)	\$ 11.3	\$ 8.5
<b>30 September 1996</b>						
Forward exchange contracts:						
\$U.S./Netherlands DG .....	\$ 137.6	1997	\$ 1.8	\$ --	\$ 1.8	\$ --
\$U.S./U.K. Pound Sterling .....	107.9	1997	--	(.7)	(.7)	(.5)
\$U.S./\$ Canadian .....	59.0	1997	--	(.2)	(.2)	--
Netherlands DG/U.K. Pound Sterling	51.4	1998	3.2	(.5)	2.7	2.7
Other .....	112.0	1998	.7	(2.0)	(1.3)	(1.4)
	467.9		5.7	(3.4)	2.3	.8
Option contracts:						
\$U.S./German DM .....	78.7	1999	1.6	(5.1)	(3.5)	(3.5)
\$U.S./Japanese Yen .....	18.4	1998	1.5	(1.3)	.2	.2
Other .....	20.7	1997	.2	(.9)	(.7)	(.7)
	117.8		3.3	(7.3)	(4.0)	(4.0)
	\$ 585.7		\$ 9.0	\$ (10.7)	\$ (1.7)	\$ (3.2)

The company's net equity position in its principal foreign subsidiaries at 30 September 1997 was \$1,171.9 million. These subsidiaries have operations in the United Kingdom, Germany, Spain, France, Netherlands, Belgium, Brazil, Japan, Singapore, Indonesia, and Canada. In addition to its foreign subsidiaries, the company has an equity position in foreign equity affiliates as disclosed in Note 8. Generally, it is the company's policy to hedge only exposures to foreign currency fluctuations which represent actual cash flow exposures.

The company enters into interest rate swap agreements to change the fixed/variable interest rate mix of the debt portfolio in order to maintain the percentage of fixed and variable rate debt within certain 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. Accordingly, the company enters into agreements to both effectively convert variable-rate debt to fixed-rate debt and to effectively convert fixed-rate debt to variable-rate debt, which is principally indexed to LIBOR rates. The company has also entered into variable to variable interest rate swap contracts to effectively convert the stated variable interest rates on \$60.0 million of the medium-term notes, Series C, to an average interest rate slightly above the three-month U.S. dollar LIBOR rate. The fair value gain (loss) on the variable to variable swaps is equally offset by a fair value loss (gain) on the related debt agreements.

The company is also party to interest rate and currency swap contracts. 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.

Counterparties to interest rate swap agreements are major financial institutions. The company has established counterparty credit guidelines and only enters into transactions with financial institutions of investment grade or better. Minimum credit standards become more stringent as the duration of the swap agreement increases. The company has provisions to require collateral in certain instances. The market value of such collateral posted in the company's favor as of 30 September 1997 is \$48.5 million and is a result of the fair value exposure to an investment grade counterparty exceeding the company's policy maximum. Management believes the risk of incurring losses related to credit risk is remote.

The table below illustrates the contract or notional (face) amounts outstanding, maturity dates, weighted average receive and pay rates as of the end of the fiscal year, and the net unrealized gain (loss) of interest rate swap agreements by type at 30 September 1997 and 1996. The notional amounts are used to calculate contractual payments to be exchanged and are not generally actually paid or received, except for the currency swap component of the contracts. The net unrealized gain (loss) on these agreements, which equals their fair value, is based on the relevant yield curve at the end of the fiscal year.

(Millions of dollars)	Notional Amount	Maturities	Weighted Average Rate Receive	Weighted Average Rate Pay	Unrealized Gross Gain	Unrealized Gross (Loss)	Net Unrealized Gain (Loss)
<b>30 September 1997</b>							
Fixed to Variable.....	\$461.0	1998 - 2007	6.7%	5.6%	\$10.2	\$ (.6)	\$ 9.6
Variable to Variable.....	60.0	2000 - 2001	14.5%	5.9%	68.9	--	68.9
Interest Rate/Currency.....	354.1	1998 - 2005	6.2%	8.9%	11.2	(4.0)	7.2
	<b>\$875.1</b>				<b>\$90.3</b>	<b>\$ (4.6)</b>	<b>\$85.7</b>
<b>30 September 1996</b>							
Fixed to Variable.....	\$243.5	1997 - 2005	7.1%	5.7%	\$ 2.1	\$ (.8)	\$ 1.3
Variable to Fixed.....	54.0	1997	6.0%	7.3%	--	(.5)	(.5)
Variable to Variable.....	60.0	2000 - 2001	8.2%	5.7%	27.9	--	27.9
Interest Rate/Currency.....	273.6	1998 - 2005	6.3%	9.3%	--	(15.5)	(15.5)
	<b>\$631.1</b>				<b>\$30.0</b>	<b>\$ (16.8)</b>	<b>\$13.2</b>

Of the net unrealized gain (loss) as of 30 September 1997 and 1996, a net gain (loss) of \$16.2 million and (\$6.5) million, respectively, has not been recognized in the financial statements. At the end of fiscal 1997 and 1996, a deferred loss of \$8.6 and \$9.8 million, respectively, resulted from terminated contracts.

During the second quarter of fiscal 1996, the company reached a \$66.8 million settlement with Bankers Trust Company over \$107.7 million in losses in fiscal 1994 associated with the termination and closure of leveraged interest rate swap contracts. The settlement included the termination of two previously closed contracts with Bankers Trust. Prior to the settlement, there was an outstanding liability of \$61.7 million associated with these closed contracts. The after-tax gain related to this settlement was \$40.7 million.

After the effects of interest rate swap agreements, the company's total debt, including current portion, is composed of 62% fixed-rate debt and 38% variable-rate debt as of 30 September 1997.

## 7 Inventories

The components of inventories are as follows:

(Millions of dollars)	1997	1996
30 September		
-----		
Inventories at FIFO cost:		
Finished goods .....	\$264.3	\$255.8
Work in process .....	30.0	15.8
Raw materials and supplies	131.7	138.0
	426.0	409.6
Less excess of FIFO cost over LIFO .....	(39.5)	(38.5)
	\$386.5	\$371.1
-----		

Inventories valued using the LIFO method comprised 51.5% and 53.4% of consolidated inventories before LIFO adjustment at 30 September 1997 and 1996, respectively. Liquidation of prior years' LIFO inventory layers in 1997, 1996, and 1995 did not materially affect cost of sales in any of these years.

## 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: American Ref-Fuel of Hempstead (50%); American Ref-Fuel of Essex County (50%); American Ref-Fuel of Niagara (50%); American Ref-Fuel of Southeastern Connecticut (50%); American Ref-Fuel of SEMASS (50%); Cambria CoGen Company (50%); Stockton CoGen Company (50%); Orlando CoGen Limited, L.P. (50%); Pure Air (50%); Sapio Produzione Idrogeno Ossigeno S.r.L. (49%); INFRA Group (40%); San Fu Chemicals (48.1%); ProCal (50%); Korea Industrial Gases (48.90%); Air Products South Africa (50%); Bangkok Industrial Gases Company Ltd. (49%); Sitt Tatt Industrial Gases (30%); and principally other industrial gas producers. In fiscal 1996, the company owned 47.6% of the outstanding shares of Carbueros Metalicos S.A. (Carbueros) and accounted for its investment by the equity method.

(Millions of dollars)	1997	1996
Current assets .....	\$ 624.9	\$ 750.6
Noncurrent assets .....	2,644.6	3,164.3
Current liabilities ....	519.6	559.5
Noncurrent liabilities .	1,998.5	2,128.6
Net sales .....	1,361.2	1,465.4
Sales less cost of sales	575.2	684.9
Net income.....	268.1	226.1
-----		

In early fiscal 1997, the company acquired an additional 49.1% of the outstanding shares of Carbueros. The consolidated operating results for Carbueros are discussed in Note 17.

The company's share of income of all equity affiliates for 1997, 1996, and 1995 was \$84.3 million, \$101.4 million, and \$68.4 million, respectively. These amounts exclude \$18.0 million, \$20.7 million, and \$17.2 million of related net expenses incurred by the company. Dividends received from equity affiliates were \$61.5 million, \$63.7 million, and \$45.4 million in 1997, 1996, and 1995, respectively.

The investment in net assets of and advances to equity affiliates at 30 September 1997 and 1996 included investment in foreign affiliates of \$299.3 million and \$509.4 million, respectively.

As of 30 September 1997 and 1996, the amount of investment in companies accounted for by the equity method included goodwill in the amount of \$46.9 million and \$121.5 million, respectively. The goodwill is being amortized into income over periods not exceeding 40 years.

In April 1996, the company announced its plan to divest its joint venture interest in American Ref-Fuel Company's waste-to-energy business. In October 1997, the company entered into an agreement in principle to sell this interest. See Note 18 to the consolidated financial statements. The investment in net assets of and advances to this waste-to-energy business was \$200.5 million at 30 September 1997.

## 9 Capital Stock

The 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 1997, and 300 million shares of Common Stock with a par value of \$1 per share. At 30 September 1997, the number of shares of Common Stock outstanding was 109,851,556.

In April 1996, the company announced its plan to commence a share repurchase

program with the intent to spend \$600 million to acquire approximately 10% of the 112 million common shares then outstanding. During fiscal 1997 and 1996, the company spent \$135.0 million and \$100.3 million to purchase 1.9 million and 1.8 million treasury shares, respectively.



The company established a trust to fund a portion of future payments to employees under existing compensation and benefit programs in fiscal 1994. The trust, which is administered by an independent trustee, was funded with 10 million shares of Treasury Stock. It will not increase or alter the amount of benefits or compensation which will be paid under existing plans. The establishment of the trust will not have an effect on earnings per share or return on average shareholders' equity. In fiscal 1997, shares have been distributed from the trust. As of 30 September 1997, the balance of Treasury Stock remaining in the trust is 9.7 million shares.

The Board of Directors adopted a Shareholder Rights Plan in 1988 and declared a dividend of one Preferred Stock Purchase Right for each outstanding share of Common Stock. Such rights only become exercisable, or transferable apart from the Common Stock, ten business days after a person or group (Acquiring Person) acquires beneficial ownership of, or commences a tender or exchange offer for, 20% or more of the company's Common Stock. Each right then may be exercised to acquire one one-hundredth of a share of a newly created Series A Junior Participating Preferred Stock at an exercise price of \$200, subject to adjustment. Alternatively, upon the occurrence of certain events (for example, if the company is the surviving corporation in a merger with an Acquiring Person), the rights entitle holders other than the Acquiring Person to acquire Common Stock having a value of twice the exercise price of the rights, or, upon the occurrence of certain other events (for example, if the company is acquired in a merger or other business combination transaction in which the company is not the surviving corporation), to acquire common stock of the Acquiring Person having a value twice the exercise price of the rights. The rights may be redeemed by the company at \$.01 per right at any time until the tenth day following public announcement that a 20% position has been acquired. The rights will expire on 16 March 1998.

#### 10 Income Taxes

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

(Millions of dollars)	1997	1996	1995
Federal:			
Current .....	\$ 61.3	\$ 75.6	\$ 81.0
Deferred .....	90.6	69.5	52.0
	151.9	145.1	133.0
State:			
Current .....	3.6	7.9	10.2
Deferred .....	6.5	11.9	10.2
Impact of law/rate change .....	--	(1.4)	(.9)
	10.1	18.4	19.5
Foreign:			
Current .....	42.1	22.2	28.0
Deferred .....	4.2	7.5	4.1
Impact of law/rate change .....	(7.2)	--	--
	39.1	29.7	32.1
	\$201.1	\$193.2	\$184.6

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

(Millions of dollars) 30 September	1997	1996
Gross deferred tax assets:		
Pension and other compensation accruals .....	\$ 95.2	\$ 72.9
Alternative minimum tax .....	46.3	36.3
Tax loss carryforwards .....	33.9	40.2
Foreign currency translation adjustment .....	--	31.5
Reserves and accruals .....	23.4	29.5
Postretirement benefits .....	29.5	23.4
Inventory .....	20.4	18.0
Other .....	48.2	49.0
Valuation allowance .....	(22.6)	(33.5)
Deferred tax assets .....	274.3	267.3
Gross deferred tax liabilities:		
Plant and equipment .....	622.9	541.0
Investment in partnerships .....	198.6	181.4
Employee benefit plans .....	43.9	25.7
Currency gains .....	24.2	13.3
Foreign currency translation adjustment .....	7.7	--
Other .....	73.9	59.1
Deferred tax liabilities .....	971.2	820.5

Net deferred income tax liability .....	\$696.9	\$553.2
---	---------	---------

Net current deferred tax assets of \$33.1 million and \$29.0 million are included in other current assets at 30 September 1997 and 1996, respectively.

The company's domestic operations are subject to taxes under the Alternative Minimum Tax (AMT) for income tax purposes. The AMT limits the utilization of tax benefits in the current year. The unused tax benefits are carried forward for use in future years.

Foreign and state operating loss carryforwards on 30 September 1997 were \$80.4 million and \$130.1 million, respectively. Foreign losses of \$36.8 million are available to offset future foreign income through 2007. The balance of these losses has an unlimited carryover period. State operating loss carryforwards are available through 2012. Foreign capital loss carryforwards were \$4.4 million on 30 September 1997 and have an unlimited carryover period.

The valuation allowance as of 30 September 1997 primarily relates to the tax loss carryforwards referenced above. If events warrant the reversal of the \$22.6 million valuation allowance, it would reduce intangible assets by \$6.9 million and reduce tax expense by \$15.7 million.

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

(Percent of income before taxes)	1997	1996	1995
United States federal statutory rate .....	35.0%	35.0%	35.0%
State taxes, net of federal tax benefit .....	2.2	2.2	2.4
Equity in earnings of foreign affiliates .....	(2.5)	(4.1)	(2.6)
Foreign tax credits and refunds on dividends received from foreign affiliates .....	.1	.1	(.4)
Nonconventional fuel credits ...	(.8)	(1.1)	(1.0)
Export tax benefits .....	(.6)	(.7)	(.6)
Investment tax credits .....	(1.1)	(.5)	(.2)
Impact of state law/rate change	--	(.2)	(.2)
Derivative settlement .....	--	.9	--
Other .....	(.4)	.1	1.0
Effective tax rate .....	31.9%	31.7%	33.4%

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

(Millions of dollars)	1997	1996	1995
Income from consolidated operations:			
United States .....	\$426.6	\$416.4	\$397.7
Foreign .....	119.5	91.8	86.7
Income from equity affiliates .....	84.3	101.4	68.4
	\$630.4	\$609.6	\$552.8

Income before taxes presented above is distributed geographically according to where the income is taxed. This differs from the geographic segment operating income presented in Note 20 in which items of income and expense are allocated to the region where revenues are generated.

The company does not pay or record U.S. income taxes on the undistributed earnings of its foreign subsidiaries and its 20% to 50% owned corporate joint ventures 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 \$611.7 million at the end of fiscal 1997. An estimated \$151.4 million in U.S. income and foreign withholding taxes would be due if these earnings were remitted as dividends, after payment of all deferred taxes.

## 11 Stock Option and Award Plans

**LONG-TERM INCENTIVE PLAN** The Long-Term Incentive Plan (the "Plan") provides for four principal types of awards to executives and key employees: stock options, stock appreciation rights, performance units, and deferred stock units. The award type most frequently used is the nonqualified stock option with an exercise price fixed at 100% of the fair market value of a share of Air Products common stock ("stock") on the date of grant. Nonqualified stock options standardly become exercisable in cumulative installments of 33 1/3% one year after the date of grant and annually thereafter, and must be exercised no later than ten years and one day from the date of grant.

On 1 October 1996, 319,900 premium priced stock options were granted in addition to the fair market value stock options. These stock options have an exercise price at 24% above market on the date of grant (or \$72). The awards are 100% vested after two years and are exercisable over an additional three-year period. As of 30 September 1997, a total of 5,429,943 options including both fair market value and premium priced stock options were outstanding.

In fiscal year 1997, the company also granted deferred stock units identified as performance shares to executive officers and other key employees. These awards provide for the issuance of common stock based on certain management objectives achieved by the performance period ending 30 September 1998. The number of shares to be paid can vary from 0% to 150% of the 226,000 base performance share units. Compensation expense is recognized over a period ranging from two to ten years.

Prior to the issuance of performance shares, the company granted deferred stock units as career share awards in fiscal years 1992 through 1997 to certain executive officers and other key employees. Career shares are deferred stock units payable in shares of stock after retirement. Career share awards equivalent to 449,784 and 446,950 shares of stock were outstanding at the end of fiscal years 1997 and 1996, respectively. Compensation expense was computed by multiplying the number of units granted by the market price of the stock on the date of grant. The cost is recognized over a ten-year period.

The following table summarizes stock option transactions (fair market value stock options and premium priced stock options) as follows:

	Number of Shares	Average Price
Outstanding at September 30, 1994 .....	5,200,873	\$ 27.35
Granted .....	751,670	46.25
Exercised .....	(806,295)	18.82
Forfeited .....	(13,714)	42.23
Outstanding at September 30, 1995 .....	5,132,534	31.41
Granted .....	794,990	52.06
Exercised .....	(572,953)	22.08
Forfeited .....	(15,799)	46.48
Outstanding at September 30, 1996 .....	5,338,772	35.44
Granted .....	1,218,650	61.99
Exercised .....	(1,121,978)	25.25
Forfeited .....	(5,501)	51.88
Outstanding at September 30, 1997 .....	5,429,943	43.46
Exercisable at end of year .....	3,404,082	
Participants at end of year .....	490	
Available for future grant at end of year	4,463,900	

The following table summarizes information about options outstanding at 30 September 1997:

Range of Exercise Prices	Options Outstanding			Options Exercisable	
	Number Outstanding	Weighted- Average Remaining Contractual Life (Years)	Weighted- Average Exercise Price	Number Exercisable	Weighted- Average Exercise Price
\$17.60 - \$22.82	632,794	2.59	\$21.98	632,794	\$21.98
23.22 - 33.85	1,060,514	4.51	28.76	1,060,514	28.76
39.13 - 46.25	1,745,213	7.12	43.42	1,476,754	42.91
52.06 - 83.38	1,991,422	9.16	58.14	234,020	52.06

**OTHER STOCK-BASED INCENTIVES** In addition to the Long-Term Incentive Plan, there is a Directors' Stock Option Plan. Options awarded to non-employee directors are exercisable six months after grant date and must be exercised no later than ten years and one day from the date of grant. Under this plan, there were 32,000 and 28,000 options outstanding and exercisable at the end of fiscal years 1997 and 1996, respectively. Option prices were \$69.1875 and \$50.81 per share for options issued in fiscal 1997 and 1996, respectively. As of 30 September 1997, 5,000 stock options have been exercised under this plan.

The company grants deferred stock unit awards to certain key employees below the executive level. Deferred stock units equivalent to 400,135 and 414,965 shares of stock were outstanding at the end of fiscal years 1997 and 1996, respectively. Compensation expense is computed by multiplying the number of units granted by the market value of the stock on the date of grant. The cost is recognized over the four-year deferral period applicable to the awards.

On 2 October 1995, the company awarded 100 stock options with an exercise price of \$52.06 per share to virtually all employees. These options vest three years after date of grant and are exercisable over an additional seven-year period. At 30 September 1997, 1,284,300 of these options were outstanding. In November 1997, the company disclosed its intention to award 100 stock options to virtually all employees. Approximately 1,450,000 options will be granted at an exercise price of \$82.63 per share.

PRO FORMA INFORMATION SFAS No. 123 requires the company to disclose pro forma net income and pro forma earnings per share amounts as if compensation expense were recognized for options granted after fiscal year 1995. Using this approach, net income and earnings per share would have been reduced to the pro forma amounts indicated in the table:

(Millions of dollars, except per share)	1997	1996
Net earnings - as reported .....	\$429.3	\$416.4
Net earnings - pro forma .....	415.5	407.3
Earnings per share - as reported .....	3.90	3.73
Earnings per share - pro forma.....	3.78	3.65

This pro forma impact may not be representative of the effects for future years and is likely to increase as additional options are granted and amortized over the vesting period.

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 of assumptions:

	1997	1996
Dividend yield .....	2.3%	2.3%
Expected volatility .....	25.3%	23.5%
Risk-free interest rate.....	6.6%	6.1%
Expected life (years).....	7.2	6.1

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.

## 12 Plant and Equipment

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

(Millions of dollars) 30 September	1997	1996
Land .....	\$ 102.8	\$ 84.8
Buildings .....	580.2	525.5
Gas generating and chemical facilities, machinery and equipment .....	7,512.6	6,836.3
Construction in progress .....	531.7	656.0
	\$8,727.3	\$8,102.6

## 13 Pension Plans

The company has various pension plans which cover almost all regular employees. The plan benefits are based primarily on years of service and employees' compensation near retirement. The funding policy is to accumulate plan assets that, over the long run, will approximate the present value of projected benefits payable. Plan assets consist primarily of listed stocks, corporate bonds, and government obligations. In fiscal 1997 and 1996, the company contributed \$10.7 and \$51.6 million, respectively, to these plans.

The actuarially computed pension cost (income) includes the following components:

(Millions of dollars)	1997	1996	1995
Service cost -- benefits earned during the period .....	\$ 32.8	\$ 33.0	\$ 25.9
Interest cost on projected benefit obligation .....	68.2	63.4	55.6
Return on plan assets:			
Actual .....	(178.2)	(97.1)	(90.6)
Deferred .....	105.2	32.7	34.6

Recognized return .....	(73.0)	(64.4)	(56.0)
Net amortization .....	(1.4)	2.6	(1.8)
-----			
Pension cost .....	\$ 26.6	\$ 34.6	\$ 23.7
-----			

The following table shows the combined funded status of the U.S. plans at 30 September 1997 and 1996, foreign plans at 30 June 1997 and 1996, and amounts recognized in the company's consolidated balance sheets at 30 September 1997 and 1996:

(Millions of dollars)	1997		1996	
	Plans in Which Assets Exceed Accumulated Benefit Obligation	Plans in Which Accumulated Benefit Obligation Exceeds Assets	Plans in Which Assets Exceed Accumulated Benefit Obligation	Plans in Which Accumulated Benefit Obligation Exceeds Assets
Actuarial present value of benefit obligation:				
Vested .....	\$623.9	\$102.2	\$529.8	\$ 93.8
Nonvested .....	41.1	10.7	36.8	10.0
Accumulated benefit obligation .....	665.0	112.9	566.6	103.8
Actuarial present value of projected benefit obligation .....	845.8	133.6	713.7	123.0
Plan assets at fair value .....	883.1	60.3	736.9	49.7
Projected benefit obligation (in excess of) less than plan assets .....	37.3	(73.3)	23.2	(73.3)
Unamortized net transition (asset) obligation .....	(24.1)	2.3	(27.5)	2.9
Unrecognized net (gain) loss .....	(17.7)	11.4	5.9	11.0
Unamortized prior service (income) cost .....	(.8)	14.8	(1.2)	14.5
Adjustment required to recognize minimum liability .....	--	(15.5)	--	(17.4)
Net pension (liability) asset .....	\$ (5.3)	\$(60.3)	\$ .4	\$(62.3)

The projected benefit obligation was determined using the following assumptions:

	1997	1996
Weighted average discount rate ...	7 3/5%	8 1/5%
Weighted average long-term rate of compensation increase .....	4 4/5%	5%

These rates are used in the determination of pension cost in the succeeding year. The weighted average expected long-term return on plan assets used to determine pension cost was 10% in fiscal 1995 through 1997.

In addition to the above plans, U.S. employees are eligible to contribute to a 401(k) plan. The company matches a portion of these contributions. Contributions charged to income for this plan for 1997, 1996, and 1995 were \$12.1 million, \$11.6 million, and \$10.8 million, respectively.

#### 14 Other Postretirement Benefits

The company provides health care and life insurance benefits for certain retired domestic employees until the age of 65, and provides health care coverage only for their covered dependents. The company's various health care programs include different cost-sharing features such as participant contributions, deductibles and copayments, and limits on the company's annual cost. The company accrues the estimated cost of providing postretirement benefits during the employees' applicable years of service.

The postretirement benefit cost includes the following components:

(Millions of dollars)	1997	1996	1995
Service cost-benefits earned during the period .....	\$3.5	\$3.9	\$3.2
Interest cost on accumulated post-retirement benefit obligation ..	4.2	4.4	4.5
Net amortization .....	(.3)	--	--
Postretirement benefit cost .....	\$7.4	\$8.3	\$7.7

At 30 September 1997 and 1996, the actuarial and recorded liabilities for postretirement benefits, none of which have been funded, are as follows:

(Millions of dollars)	1997	1996
30 September		
Actuarial present value of benefit		

obligation:		
Retirees .....	\$21.1	\$21.9
Fully eligible active plan participants .....	12.5	13.2
Other active plan participants .....	22.8	23.2
-----		
Accumulated postretirement benefit obligation .....	56.4	58.3
Unrecognized net gain .....	9.0	4.0
-----		
Accrued postretirement benefit liability	\$65.4	\$62.3
-----		



The accumulated postretirement benefit obligation was determined using a discount rate of 7 1/2% in 1997 and 8% in 1996. The weighted average assumed health care cost trend rate is 7 1/2% for fiscal 1998 (7 4/5% and 6 1/2% were assumed in 1997 and 1996, respectively). The weighted average health care cost trend rate is assumed to decrease gradually to 5 1/2% by the year 2005 and remain at that level thereafter. Increasing the health care cost trend rate by one percentage point would increase the accumulated postretirement benefit obligation at 30 September 1997 by approximately 4% and the postretirement benefit cost for fiscal 1997 by approximately 5%.

#### 15 Leases

Capital leases, primarily for machinery and equipment, are included with owned plant and equipment on the balance sheet in the amount of \$46.0 million and \$45.5 million at the end of fiscal 1997 and 1996, respectively. Related amounts of accumulated depreciation are \$23.6 million and \$24.2 million, respectively.

Operating leases, including month-to-month agreements, cost the company \$60.6 million in 1997, \$50.0 million in 1996, and \$42.8 million in 1995.

At 30 September 1997, minimum payments due under leases are as follows:

(Millions of dollars)	Capital Leases	Operating Leases
1998.....	\$ 8.0	\$ 25.3
1999.....	6.9	20.6
2000.....	6.0	14.0
2001.....	5.0	9.5
2002.....	5.2	6.0
2003 and thereafter.....	10.8	32.1
	-----	-----
	\$41.9	\$107.5
	-----	-----

The present value of the above future capital lease payments is included in the liability section of the balance sheet. At the end of fiscal 1997, \$5.3 million was classified as current and \$26.7 million as long-term.

#### 16 Other Commitments and Contingencies

Subsidiaries of Air Products and Browning-Ferris Industries, Inc. (BFI) have formed American Ref-Fuel partnerships that construct, own, and operate facilities to incinerate municipal solid waste and generate electricity. Five facilities -- Hempstead, New York; Essex County, New Jersey; Preston, Connecticut; Niagara Falls, New York; and SEMASS in Rochester, Massachusetts are in commercial operation. Financing arrangements for these projects include agreements with Air Products and BFI to each fund one-half of certain partnership cash deficiencies resulting from the partnership's failure to perform. In all cases except Niagara Falls and SEMASS, (i) the sponsoring municipality is obligated to make minimum payments that are at least sufficient to support the project debt of the partnership in the event of failure to deliver waste or most changes in law, and (ii) the municipality is obligated at least to satisfy most of the outstanding project debt if the incineration service is terminated for reasons other than default by the Ref-Fuel partnership. If a partnership default results in termination, Air Products may limit its financial obligation by partnership as follows:

Hempstead: Periodic debt service on 50% of the unamortized project debt. Total unamortized debt was \$210 million as of 30 September 1997. Average annual debt service on 50% of the debt over the next five years is \$10 million. Air Products has guaranteed \$5 million of additional partnership debt and annual debt service on such debt is estimated to be \$0.2 million.

Essex County: One-half of any partnership cash deficiency, including debt service, but which is limited to \$50 million related to the debt and up to an additional \$50 million if certain environmental events occur. Average annual debt service on 50% of the debt over the next five years is \$10 million.

Preston: Periodic debt service on 50% of the unamortized debt. Total unamortized project debt was \$86 million as of 30 September 1997 and \$44 million of additional partnership debt of which \$22 million is guaranteed by Air Products. Average annual debt service on 50% of the debt over the next five years is \$6 million.

The financial support at SEMASS and Niagara is discussed below:

At Niagara Falls, Air Products and BFI entered into guarantees to each fund one-half of any partnership cash deficiency, relating to variable rate debt service. Total unamortized project debt was \$165 million as of 30 September 1997. Average annual debt service on 50% of the debt over the next five years is estimated to be \$3 million.

SEMASS: Air Products and BFI entered into support agreements and guarantees (50% each) that provide obligations to (i) lend up to \$5 million to the SEMASS Partnership in certain circumstances, (ii) defer up to \$7 million of operating cost reimbursement, and (iii) fund up to \$5 million in operating damages. These obligations have been assigned to the lenders. The SEMASS Partnership's debt of approximately \$300 million as of 30 September 1997 is not supported or guaranteed by either Air Products or BFI.

General partnerships, in which subsidiaries of Air Products have a 50% interest, own facilities in Stockton, California and Cambria County, Pennsylvania that burn coal and coal waste, respectively, and produce electricity and steam. Air Products is also operator of these projects. Specific performance guarantees obligate Air Products to pay damages up to the following amounts under certain circumstances and if the general partnership is unable to service its debt:

Stockton: Periodic debt service on the outstanding project debt (\$19 million as of 30 September 1997). Average annual debt service over the next five years is \$4 million.

Cambria: Under certain circumstances, if the facility fails to operate as a result of not having fuel available, the outstanding project debt (\$144 million as of 30 September 1997). Otherwise, \$1 million (escalates from October 1989) annually up to a cumulative total of \$17 million.

Additionally, Air Products and a subsidiary have a 50% interest in a limited partnership that owns a natural gas-fired cogeneration facility in Orlando, Florida. Under agreements with the partnership, Air Products provides financial support relating to the facility's natural gas supply. In the event the partnership's municipal utility district customer (one of the project's two power purchasers) terminates its contract due to a partnership default, Air Products will make available up to \$15 million (escalates from February 1992) to compensate the utility district for the higher cost of power procured from other sources over a period of up to 5 years.

In connection with financing of the cogeneration projects, Air Products has contracted to provide financial support in the event of a title problem at the plant site.

Air Products and an equity affiliate effectively own 48.9% of Bangkok Cogeneration Company. Bangkok Cogeneration Company is constructing a cogeneration facility in Thailand and has entered into agreements providing for financings aggregating approximately \$92 million. The failure of the affiliate to achieve certain milestones allows the lenders recourse against the company in proportion to its ownership interest to the extent that the equity investors have continued to draw down on loans. Such milestones include obtaining government approvals, permits, and land rights by certain dates or by the time project costs reach certain levels. Construction is expected to be completed in August 1998.

In addition, the company has guaranteed repayment of borrowings of certain domestic and foreign equity affiliates. At year end, these guarantees totaled approximately \$62 million.

The company has accrued for certain environmental investigatory and noncapital remediation costs consistent with the policy set forth in Note 1. The potential exposure for such costs is estimated to range from \$17 million to a reasonably possible upper exposure of \$39 million. The balance sheet at 30 September 1997 includes an accrual of \$33 million. The company does not expect that any sums it may have to pay in connection with these environmental matters would have a materially adverse effect on its consolidated financial position or results of operations in any one year.

The company in the normal course of business has commitments, lawsuits, contingent liabilities, and claims. However, the company does not expect that any sum it may have to pay in connection with these matters will have a materially adverse effect on its consolidated financial position or results of operations.

At the end of fiscal 1997, the company had purchase commitments to spend approximately \$148 million for additional plant and equipment.

#### 17 Acquisition of Carbueros Metalicos S.A.

In November 1994, the company published a tender offer to acquire 74.2% of the outstanding shares (9.7 million) of Carbueros Metalicos S.A. (Carbueros), representing all of the shares in Carbueros not owned by the company. The company made a second tender offer in September 1995 and a third tender offer in September 1996. The company acquired less than 1% of the outstanding shares in the initial tender offer while the second tender offer resulted in the acquisition of an additional 21.5% (2.8 million) of the outstanding shares at a cost of \$120.0 million.

On 22 October 1996, the company obtained control of Carbueros through the acquisition of an additional 49.1% (6.4 million) of the outstanding shares at a cost of \$288.4 million. The company now owns 96.7% of the outstanding shares in Carbueros. The acquisition was funded through the issuance of U.S. dollar debt effectively converted to Spanish Peseta liabilities through the use of interest rate and currency swap contracts and foreign exchange contracts.

Carbueros is a leading supplier of industrial gases in Spain. This transaction was accounted for as a step acquisition purchase and the results for the year ended 30 September 1997 contained approximately forty-five weeks of consolidated operating results for Carbueros. Previously, the company accounted for its investment using the equity method. The company has recorded a total of \$212.2 million as cumulative goodwill related to the shares acquired in the three tender offers. The goodwill will be amortized on a straight-line basis over forty years.

The following table shows unaudited pro forma consolidated financial information for the years ended 30 September 1997 and 1996. This information reflects the acquisition as if it had occurred on 1 October 1995 and includes adjustments for asset valuation depreciation expense, goodwill amortization, and interest expense from acquisition debt. This information is not necessarily indicative of

future consolidated results or what actual results would have been had the acquisition occurred at the beginning of fiscal 1996.

## Pro forma information (unaudited):

(Millions of dollars, except per share)	1997	1996
Sales .....	\$4,682.7	\$4,309.7
Net Income .....	430.3	423.1
Earnings Per Share .....	3.91	3.79

## 18 Subsequent Event

In October 1997, the company entered into an agreement in principle to sell its 50% interest in American Ref-Fuel, its waste-to-energy joint venture with Browning-Ferris Industries, Inc. to Duke Energy Power Services and United American Energy Corporation. The sale is subject to the completion of a definitive agreement and approvals by each company's board of directors and relevant regulatory agencies. The transaction is expected to close in December 1997. The company will receive a majority of the transaction value in cash at that time, and will retain a limited partnership interest in one project which is undergoing a power agreement restructuring. The restructuring is expected to be completed within one year, at which point the company would receive the remaining cash. The operations of American Ref-Fuel are the primary component of equity affiliates' income of the corporate and other business segment. Fiscal 1997 results included equity affiliates' income of \$21.4 million before taxes. This includes a \$4.8 million charge for refinancing the debt of American Ref-Fuel of Hempstead.

## 19 Supplementary Information

## Payables, Trade and Other

(Millions of dollars) 30 September	1997	1996
Accounts payable, trade .....	\$468.9	\$396.0
Outstanding checks payable in excess of certain cash balances .....	40.2	50.2
Customer advances .....	107.5	80.2
	\$616.6	\$526.4

## Accrued Liabilities

(Millions of dollars) 30 September	1997	1996
Accrued payroll and employee benefits .....	\$ 98.8	\$ 76.6
Accrued interest expense .....	44.7	44.0
Other accrued liabilities .....	172.2	120.5
	\$315.7	\$241.1

## Short-Term Borrowings

(Millions of dollars) 30 September	1997	1996	1995
Bank obligations.....	\$ 20.8	\$ 31.0	\$ 22.0
Commercial paper.....	54.5	370.0	271.6
Notes payable -- other.....	25.6	22.2	20.1
	\$100.9	\$423.2	\$313.7

The weighted average interest rate of short-term commercial paper outstanding as of 30 September 1997, 1996, and 1995 was 5.7%, 5.5%, and 5.9%, respectively.

## Other Income (Expense), Net

(Millions of dollars)	1997	1996	1995
-----------------------	------	------	------

Interest income .....	\$ 6.7	\$ 7.3	\$ 8.2
Foreign exchange .....	(5.8)	.3	5.5
Gain on sale of assets and investments .....	25.1	--	10.7
Impairment loss of long-lived assets...	(9.9)	--	--
Royalty and technology income .....	2.7	1.5	2.3
Amortization of intangibles .....	(14.6)	(10.7)	(8.1)
Technical aid fees .....	12.8	13.0	10.3
Miscellaneous .....	7.2	14.3	(3.4)
	-----	-----	-----
	\$ 24.2	\$ 25.7	\$ 25.5
	-----	-----	-----

ADDITIONAL INCOME STATEMENT INFORMATION Fiscal 1997 results were increased by net after-tax income of \$1.6 million, or \$.01 per share, for special items. The components of special items on a before- and after-tax basis were as follows: a gain of \$9.5 million (\$5.9 million after tax, or \$.05 per share) on the sale of the landfill gas recovery business; a charge of \$9.3 million (\$6.0 million after tax, or \$.05 per share) for an impairment loss in the chemicals segment; a gain of \$7.3 million (\$4.5 million after tax, or \$.04 per share) on the partial sale of a cost basis investment; a charge of \$4.8 million (\$2.8 million after tax, or \$.03 per share) from the debt refinancing of American Ref-Fuel of Hempstead.

Fiscal 1996 results include a \$66.8 million (\$40.7 million after tax, or \$.36 per share) settlement with Bankers Trust Company over losses reported in fiscal 1994 associated with leveraged interest rate swap contracts. The settlement included the termination of two previously closed contracts with Bankers Trust. Prior to the settlement, there was an outstanding liability of \$61.7 million associated with these closed contracts.

Fiscal 1995 results include a gain of \$10.8 million (\$6.6 million after tax, or \$.06 per share) from the sale of an industrial gas plant.

ADDITIONAL CASH FLOW INFORMATION Cash paid for interest and taxes is as follows:

(Millions of dollars)	1997	1996	1995
Interest (net of amounts capitalized) .....	\$161.5	\$116.6	\$98.9
Taxes (net of refunds) .	89.1	98.9	87.6

Significant noncash transactions are as follows:

(Millions of dollars)	1997	1996	1995
Capital lease additions .....	\$3.0	\$4.7	\$5.2
Receivable from terminated environmental and energy project .....	--	--	20.4
Debt associated with acquisition	1.1	5.2	18.4

#### Summary by Quarter

This table summarizes the unaudited results of operations for each quarter of 1997 and 1996:

(Millions of dollars, except per share)	First	Second	Third	Fourth
<b>1997</b>				
Sales.....	\$1,120.9	\$1,153.1	\$1,150.3	\$1,213.5
Operating income.....	169.4	184.0	192.9	179.1
Net income.....	99.9	106.0	116.0	107.4
Earnings per common share.....	.91	.96	1.05	.98
Dividends per common share.....	.275	.275	.30	.30
Price per common share:				
High.....	70 5/8	77 5/8	85 5/8	89 5/8
Low.....	58	66 1/2	66 3/8	79 5/8
<b>1996</b>				
Sales.....	\$947.5	\$1,012.5	\$997.3	\$1,050.4
Operating income.....	144.2	148.0	155.4	143.7
Net income.....	89.0	135.3	98.0	94.1
Earnings per common share.....	.80	1.21	.87	.85
Dividends per common share.....	.26	.26	.275	.275
Price per common share:				
High.....	58 3/4	58	60 7/8	58 3/4
Low.....	49 3/4	50 3/8	54 3/8	51 3/4

As discussed in Note 6, the \$66.8 million gain (\$40.7 million after tax, or \$.36 per share) from the settlement with Bankers Trust Company was recorded in the second quarter of 1996.

#### Common Stock Information

Ticker Symbol: APD  
 Exchange Listing: New York Stock Exchange and Pacific Stock Exchange  
 Transfer Agent and Registrar:  
 First Chicago Trust Company of New York  
 P.O. Box 2506, Jersey City, NJ 07303-2506  
 Telephone: (800) 519-3111  
 TDD: (201) 222-4955  
 Internet: <http://www.fctc.com>  
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#### 20 Business Segment and Geographic Information

The company has three business segments that manufacture products or provide services to many different markets. The segment results for fiscal 1996 and 1995 have been restated. The business to be divested, American Ref-Fuel, and the landfill gas recovery business sold in November 1996 are included in the corporate and other segment, while the continuing businesses from the former environmental and energy segment are now included in the equipment and services segment.

The company is a leading international supplier of industrial and specialty gas products. Principal products of the industrial gases segment are oxygen, nitrogen, argon, hydrogen, carbon monoxide, carbon dioxide, synthesis gas, and

helium. The largest market segments are chemical processing, refining, metal production, electronics, food processing, and medical gases. The company has its strongest market positions in the United States and Europe.

The chemical businesses consist of polymer chemicals, performance chemicals, and chemical intermediates. Polymer chemicals include polymer emulsions, pressure-sensitive adhesives, and polyvinyl alcohol. Principal products of performance chemicals are specialty additives, polyurethane additives, and epoxy additives. Principal chemical intermediates are amines and polyurethane intermediates. The company also produces certain industrial chemicals. The end markets for the company's chemical products are extensive, including adhesive, textile, paper, building products, agriculture, and furniture. Principal geographic markets for the company's chemical products are North America, Europe, and Asia.

The equipment and services segment designs and manufactures cryogenic and gas processing equipment for air separation, gas processing, natural gas liquefaction, hydrogen purification, and nitrogen rejection. The segment also designs and builds systems for recovering gases using membrane technology. The equipment is sold along with a broad range of plant design, engineering, and operating services for the company's power generation and Pure Air(TM) flue gas treatment facilities. 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.

Business segment information is shown below:

(Millions of dollars)	Industrial Gases	Chemicals	Equipment and Services	Corporate and Other	Total
1997					
Sales .....	\$2,673.9	\$1,448.1	\$514.6	\$1.2	\$4,637.8
Operating income .....	515.2	204.2	37.5	(31.5)	725.4
Equity affiliates' income .....	28.5	.4	13.9	23.5	66.3
Identifiable assets .....	4,721.6	1,271.5	440.1	255.2	6,688.4
Investment in and advances to equity affiliates	314.6	2.4	26.0	212.7	555.7
Depreciation .....	347.0	102.7	7.2	2.2	459.1
Additions to plant and equipment .....	696.0	152.6	1.7	19.9	870.2
1996					
Sales .....	\$2,310.5	\$1,362.3	\$314.6	\$20.3	\$4,007.7
Operating income .....	406.7	197.5	32.7	(45.6)	591.3
Equity affiliates' income .....	44.0	.3	8.5	27.9	80.7
Identifiable assets .....	3,923.3	1,225.5	345.6	268.6	5,763.0
Investment in and advances to equity affiliates	524.3	2.6	19.5	213.0	759.4
Depreciation .....	298.1	97.5	6.7	9.8	412.1
Additions to plant and equipment .....	745.9	171.7	14.1	19.6	951.3
1995					
Sales .....	\$2,177.5	\$1,358.8	\$309.0	\$20.0	\$3,865.3
Operating income .....	445.7	192.4	.3	(36.5)	601.9
Equity affiliates' income .....	22.1	.5	4.8	23.8	51.2
Identifiable assets .....	3,564.2	1,144.5	328.3	197.8	5,234.8
Investment in and advances to equity affiliates	385.2	5.9	8.1	181.7	580.9
Depreciation .....	267.5	90.8	8.8	15.1	382.2
Additions to plant and equipment .....	678.7	132.7	45.2	13.7	870.3

Notes: Corporate and other operating income includes the results from the business to be divested, American Ref-Fuel, and the landfill gas recovery business sold in November 1996, in addition to unallocated corporate expenses and income and foreign exchange gains and losses. Corporate and other identifiable assets include cash and cash items, unallocated administrative facilities, and certain deferred items.

Identifiable assets exclude the investment in and advances to equity affiliates. Sales are to unconsolidated customers. Sales between segments, excluding transfers of products at cost, are not material. Products transferred at cost consist primarily of air separation plants and distribution equipment manufactured by the equipment and services segment for use by the industrial gases segment. These transfers amounted to \$559.0 million, \$636.8 million, and \$507.0 million in 1997, 1996, and 1995, respectively.



Geographic information is presented below:

(Millions of dollars)	United States	Europe	Canada and Latin America	Other	Total
<b>1997</b>					
<b>Sales</b>					
Industrial Gases.....	\$1,589.9	\$ 939.1	\$138.1	\$ 6.8	\$2,673.9
Chemicals.....	1,357.7	45.5	33.6	11.3	1,448.1
Equipment and Services.....	320.9	193.7	--	--	514.6
Corporate and Other.....	1.2	--	--	--	1.2
<b>Total.....</b>	<b>3,269.7</b>	<b>1,178.3</b>	<b>171.7</b>	<b>18.1</b>	<b>4,637.8</b>
Operating income.....	554.3	150.8	20.9	(0.6)	725.4
Equity affiliates' income.....	36.5	13.9	11.2	4.7	66.3
Identifiable assets.....	4,164.6	2,033.1	300.4	190.3	6,688.4
Investment in and advances to equity affiliates.....	256.3	95.7	73.9	129.8	555.7
<b>1996</b>					
<b>Sales</b>					
Industrial Gases.....	\$1,477.8	\$ 697.7	\$133.3	\$ 1.7	\$2,310.5
Chemicals.....	1,282.5	56.3	9.4	14.1	1,362.3
Equipment and Services.....	236.5	78.1	--	--	314.6
Corporate and Other.....	20.3	--	--	--	20.3
<b>Total.....</b>	<b>3,017.1</b>	<b>832.1</b>	<b>142.7</b>	<b>15.8</b>	<b>4,007.7</b>
Operating income.....	460.8	115.5	14.5	0.5	591.3
Equity affiliates' income.....	35.5	24.0	7.9	13.3	80.7
Identifiable assets.....	3,992.7	1,411.8	224.4	134.1	5,763.0
Investment in and advances to equity affiliates.....	249.9	324.3	71.0	114.2	759.4
<b>1995</b>					
<b>Sales</b>					
Industrial Gases.....	\$1,357.6	\$ 691.0	\$128.9	\$ --	\$2,177.5
Chemicals.....	1,310.0	44.8	1.4	2.6	1,358.8
Equipment and Services.....	207.7	101.3	--	--	309.0
Corporate and Other.....	20.0	--	--	--	20.0
<b>Total.....</b>	<b>2,895.3</b>	<b>837.1</b>	<b>130.3</b>	<b>2.6</b>	<b>3,865.3</b>
Operating income.....	456.9	119.2	25.8	--	601.9
Equity affiliates' income.....	26.8	15.7	4.5	4.2	51.2
Identifiable assets.....	3,569.4	1,395.4	156.1	113.9	5,234.8
Investment in and advances to equity affiliates.....	210.4	194.6	81.8	94.1	580.9

Notes: Included in United States sales are export sales to unconsolidated customers of \$555 million in 1997, \$459 million in 1996, and \$415 million in 1995. The Europe segment operates principally in the United Kingdom, France, Germany, Netherlands, Spain, and Belgium. Equity affiliates' income and investment in and advances to equity affiliates included under Other relates to the company's equity affiliates in Asia and South Africa.

## ELEVEN-YEAR SUMMARY OF SELECTED FINANCIAL DATA

(Millions of dollars, except per share)	1997	1996	1995	1994
<b>Operating Results</b>				
Sales.....	\$4,638	\$4,008	\$3,865	\$3,485
Cost of sales.....	2,772	2,408	2,317	2,112
Selling, distribution, and administrative.....	1,051	920	869	789
Research and development.....	114	114	103	97
Workforce reduction and asset write-downs.....	--	--	--	--
Operating income.....	725	591	602	486
Equity affiliates' income(a).....	66	80	51	28
(Settlement)/Loss on leveraged interest rate swaps.....	--	(67)	--	107
Interest expense.....	161	129	100	81
Income taxes.....	201	193	185	92
Income from continuing operations.....	429	416(b)	368	234(c)
Net income.....	429	416(b)	368	248(e)
Earnings per common share:(g)				
Continuing operations.....	3.90	3.73(b)	3.29	2.06(c)
Net income.....	3.90	3.73(b)	3.29	2.18(e)
<b>Year-End Financial Position</b>				
Plant and equipment, at cost.....	\$8,727	\$8,103	\$7,350	\$6,520
Total assets.....	7,244	6,522	5,816	5,036
Working capital.....	500	111	21	101
Long-term debt and other financings.....	2,292	1,739	1,194	923
Shareholders' equity.....	2,648	2,574	2,398	2,206
<b>Financial Ratios</b>				
Return on sales(h).....	9.3%	10.4%	9.5%	6.7%
Return on average shareholders' equity(h).....	16.6%	16.6%	16.1%	10.9%
Total debt to sum of total debt and shareholders' equity(i).....	48.2%	46.0%	41.2%	36.0%
Cash provided by operations to average total debt(i).....	40.9%	38.5%	48.6%	59.5%
Interest coverage ratio.....	4.4	5.1	5.5	4.5
<b>Other Data</b>				
For the year:				
Depreciation.....	\$459	\$412	\$382	\$353
Capital expenditures(k).....	1,222	1,164	969	655
Cash dividends per common share(g).....	1.15	1.07	1.01	.95
Market price range per common share(g).....	89 - 58	60 - 49	59 - 43	51 - 38
Average common shares outstanding (millions).....	110	112	112	114
At year end:				
Book value per common share(g).....	24.11	23.30	21.48	19.46
Shareholders.....	11,200	11,700	11,800	11,900
Employees.....	16,400	15,200	14,800	14,100

- (a) Includes related expenses and gain on sale of investment in equity affiliates.
- (b) Includes an after-tax gain of \$41 million, or \$.36 per share, from a settlement associated with leveraged interest rate swap contracts.
- (c) Includes a charge of \$75 million, or \$.66 per share, for a loss on certain derivative contracts.
- (d) Includes a charge of \$76 million, or \$.67 per share, for workforce reduction and asset write-downs.
- (e) Includes a charge of \$75 million, or \$.66 per share, for a loss on certain derivative contracts and a net gain of \$14 million, or \$.12 per share, for the cumulative effect of accounting changes.
- (f) Net income for fiscal 1992 and 1987 includes an extraordinary charge of \$6 million, or \$.05 per share, and \$4 million, or \$.04 per share, respectively, for the early retirement of debt.

1993	1992	1991	1990	1989	1988	1987
\$3,328	\$3,217	\$2,931	\$2,895	\$2,642	\$2,432	\$2,132
2,030	1,937	1,755	1,775	1,601	1,452	1,279
744	724	686	659	610	545	489
92	85	80	72	71	72	57
120	--	--	--	--	--	--
369	481	435	399	382	374	327
13	16	13	17	9	(8)	(9)
--	--	--	--	--	--	--
81	90	86	83	73	65	77
100	130	113	103	96	87	81
201(d)	277	249	230	222	214	160
201(d)	271(f)	249	230	222	214	156(f)
1.76(d)	2.45	2.22	2.07	2.02	1.95	1.42
1.76(d)	2.40(f)	2.22	2.07	2.02	1.95	1.38(f)
\$5,953	\$5,785	\$5,332	\$5,010	\$4,442	\$4,085	\$3,714
4,761	4,492	4,228	3,900	3,366	3,000	2,705
322	279	117	214	262	110	145
1,016	956	945	954	854	668	616
2,102	2,098	1,841	1,688	1,445	1,272	1,147
6.0%	8.6%	8.5%	7.9%	8.4%	8.8%	7.5%
9.6%	14.0%	14.1%	14.7%	16.4%	17.6%	14.2%
37.3%	33.9%	38.1%	38.5%	38.4%	37.6%	36.8%
50.3%	52.7%	57.7%	52.7%	53.7%	65.4%	64.7%
4.4	5.4	4.2	4.2	4.6	4.9	3.9
\$346(j)	\$340	\$319	\$303	\$281	\$258	\$243
666	485	657	621	562	556	368
.89	.83	.75	.69	.63	.55	.45
50 - 37	50 - 31	37 - 21	31 - 22	25 - 18	27 - 14	27 - 16
114	113	112	111	110	110	113
18.41	18.50	16.40	15.17	13.11	11.60	10.33
11,800	11,100	10,900	11,100	11,400	11,900	12,000
15,300	14,500	14,600	14,000	14,100	13,300	12,100

(g) Data per common share are based on the average number of shares outstanding during each year retroactively restated to reflect a two-for-one stock split in 1992, except for book value per common share, which is based on the number of shares outstanding at the end of each year retroactively restated.

(h) Financial ratios were calculated using income from continuing operations.

(i) Total debt includes long-term debt, other financings, current portion of long-term debt and other financings, and short-term borrowings as of the end of the year.

(j) Depreciation expense in 1993 excludes \$56 million associated with asset write-downs.

(k) Capital expenditures include additions to plant and equipment, investment in and advances to unconsolidated affiliates, acquisitions, and capital lease additions.

## 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 1997, 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 with the exception of Air Products Ref-Fuel of Essex County, Inc. which is incorporated in the State of New Jersey.

Registrant -- Air Products and Chemicals, Inc.  
 Air Products Helium, Inc.  
 Air Products Hydrogen Company, Inc.  
 Air Products, Incorporated  
 Air Products International Corporation  
 Air Products Manufacturing Corporation  
 Air Products Ref-Fuel of Essex County, Inc.  
 Air Products Ref-fuel of Hempstead, Inc.  
 APCI (U.K.), Inc.  
 Middletown Oxygen Company, Inc.  
 Permea, Inc.  
 Prodair Corporation

## BELGIUM

Air Products S.A.  
 Air Products Management S.A.

## BRAZIL

Air Products Gases Industriais Ltda. (The organization of this affiliate more closely resembles a partnership with limited liability than a corporation.)

## CANADA

Air Products Canada Ltd.

## CHINA

Northern Air Products (Tianjin) Limited  
 Southern Air Products (Guangzhou) Limited

## FRANCE

Air Products Industrie  
 Air Products S.A.  
 Prodair et Cie S.C.S.  
 Prodair S.A.

## GERMANY

Air Products GmbH

## THE NETHERLANDS

Air Products Nederland B.V.  
 Air Products (Pernis) B.V.  
 Air Products (Rozenburg), Inc.

## SPAIN

Air Products Iberica, S.A.  
 S.E. de Carburos Metalicos S.A.

## UNITED KINGDOM

Air Products PLC  
 Air Products (GB) Limited  
 Air Products (UK) Limited  
 Air Products (BR) Limited  
 Air Products (Chemicals) PLC (formerly Anchor Chemical Group PLC)

## POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints HAROLD A. WAGNER or ARNOLD H. KAPLAN OR JAMES H. AGGER, 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 September 30, 1997 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 his/her 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/ Harold A. Wagner ----- Harold A. Wagner	Director and Chairman of the Board (Principal Executive Officer)	November 20, 1997
/s/ Dexter F. Baker ----- Dexter F. Baker	Director	November 20, 1997
/s/ Tom H. Barrett ----- Tom H. Barrett	Director	November 20, 1997
/s/ L. Paul Bremer, III ----- L. Paul Bremer, III	Director	November 20, 1997
/s/ Robert Cizik ----- Robert Cizik	Director	November 20, 1997

/s/ Ruth M. Davis ----- Ruth M. Davis	Director	November 20, 1997
/s/ Edward E. Hagenlocker ----- Edward E. Hagenlocker	Director	November 20, 1997
/s/ James F. Hardymon ----- James F. Hardymon	Director	November 20, 1997
/s/ Joseph J. Kaminski ----- Joseph J. Kaminski	Director	November 20, 1997
/s/ Terry R. Lautenbach ----- Terry R. Lautenbach	Director	November 20, 1997
/s/ Rudolphus F. M. Lubbers ----- Rudolphus F. M. Lubbers	Director	November 20, 1997
----- Takeo Shiina	Director	November 20, 1997
/s/ Lawrason D. Thomas ----- Lawrason D. Thomas	Director	November 20, 1997

THIS SCHEDULE CONTAINS SUMMARY FINANCIAL INFORMATION EXTRACTED FROM THE CONSOLIDATED BALANCE SHEET AND THE CONSOLIDATED STATEMENT OF INCOME FILED AS PART OF FORM 10-K AND IS QUALIFIED IN ITS ENTIRETY BY REFERENCE TO SUCH FORM 10-K.

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YEAR	SEP-30-1997	OCT-01-1996	SEP-30-1997
			53
		0	
		895	
		15	
		386	
	1,624		8,727
		4,286	
		4,441	
	1,125		2,292
	0		0
		125	
		2,523	
7,244			4,638
	4,638		2,772
		2,772	
		114	
		6	
	161		
		630	
		201	
429		0	
		0	
			0
		429	
		3.90	
		3.90	