
SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM 10-K

Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

FOR THE FISCAL YEAR ENDED SEPTEMBER 30, 1998

Commission file number 1-2918

ASHLAND INC.
(a Kentucky corporation)

I.R.S. No. 61-0122250 1000 Ashland Drive Russell, Kentucky 41169

Telephone Number: (606) 329-3333

Securities Registered Pursuant to Section 12(b):

Title of each class

Name of each exchange on which registered

Common Stock, par value \$1.00 per share

New York Stock Exchange and Chicago Stock Exchange New York Stock Exchange and Chicago Stock Exchange

Rights to Purchase Series A Participating Cumulative Preferred Stock

Securities Registered Pursuant to Section 12(g): None

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

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

At October 30, 1998, based on the New York Stock Exchange closing price, the aggregate market value of voting stock held by non-affiliates of the Registrant was approximately \$3,249,504,576. In determining this amount, the Registrant has assumed that directors, certain of its executive officers, and persons known to it to be the beneficial owners of more than five percent of its common stock are affiliates. Such assumption shall not be deemed conclusive for any other purpose.

At October 30, 1998, there were 75,057,315 shares of Registrant's common stock outstanding.

Documents Incorporated by Reference

Portions of Registrant's Annual Report to Shareholders for the fiscal year ended September 30, 1998 are incorporated by reference into Parts I and II.

Portions of Registrant's definitive Proxy Statement for its January 28, 1999 Annual Meeting of Shareholders are incorporated by reference into Part III.

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ITEM 1. BUSINESS

Ashland Inc. is a Kentucky corporation, organized on October 22, 1936, with its principal executive offices located at 1000 Ashland Drive, Russell, Kentucky 41169 (Mailing Address: P.O. Box 391, Ashland, Kentucky 41114) (Telephone: (606) 329-3333). Effective January 4, 1999, Ashland's principal executive offices will be located at 50 E. RiverCenter Boulevard, Covington, Kentucky 41012 (Mailing Address: 50 E. RiverCenter Boulevard, P.O. Box 391, Covington, Kentucky 41012-0391) (Telephone: (606) 815-3333). The terms "Ashland" and the "Company" as used herein include Ashland Inc. and its consolidated subsidiaries, except where the context indicates

Ashland's businesses are grouped into five industry segments: Ashland Chemical, APAC, Valvoline, Refining and Marketing and Arch Coal. Financial information about these segments for the three fiscal years ended September 30, 1998 is set forth on Pages 60 and 61 of Ashland's Annual Report to Shareholders for the fiscal year ended September 30, 1998 ("Annual Report").

Ashland Chemical distributes industrial chemicals, solvents, thermoplastics and resins, and fiberglass materials, and manufactures and sells a wide variety of specialty chemicals and certain petrochemicals. APAC performs contract construction work, including highway paving and repair, excavation and grading, and bridge construction, and produces asphaltic and ready-mix concrete, crushed stone and other aggregate, concrete block and certain specialized construction materials in the southern and midwestern United States.

Valvoline is a marketer of branded, packaged motor oil and automotive chemicals, automotive appearance products, antifreeze, filters, rust preventives and coolants. In addition, Valvoline is engaged in the "fast oil change" business through outlets operating under the Valvoline Instant Oil Change(R) name.

Effective January 1, 1998, Ashland and USX-Marathon completed a transaction to form Marathon Ashland Petroleum LLC ("MAP"), which combined major portions of the supply, refining, marketing and transportation operations of the two companies. Marathon has a 62% interest in MAP, and Ashland holds a 38% interest. MAP operates seven refineries with a total crude oil refining capacity of 935,000 barrels per day. Refined products are distributed through a network of independent and company-owned outlets in the Midwest, the upper Great Plains and the southeastern United States. Ashland accounts for its investment in MAP using the equity method of accounting.

Ashland's coal operations are conducted by Arch Coal, Inc., which is owned 55% by Ashland and is publicly traded. Arch Coal produces, transports, processes and markets bituminous coal produced in Central Appalachia and the western and midwestern United States. Ashland accounts for its investment in Arch Coal using the equity method of accounting.

At September 30, 1998, Ashland and its consolidated subsidiaries had approximately 21,200 employees (excluding contract employees).

ASHLAND CHEMICAL

Ashland Chemical Company, a division of Ashland, is engaged in the manufacture, distribution and sale of a wide variety of chemicals, fine ingredients and plastic products. Ashland Chemical owns and operates 36 manufacturing facilities and participates in 13 manufacturing joint ventures in 11 states and 19 foreign countries. In addition, Ashland Chemical owns or leases approximately 100 distribution facilities in North America and 25 distribution facilities in 17 foreign countries. Ashland Chemical is comprised of the following operations:

DISTRIBUTION

INDUSTRIAL CHEMICALS & SOLVENTS DIVISION - This division markets specialty chemicals, additives and solvents to industrial chemical users in major markets through distribution centers in the United States, Canada, Mexico and Puerto Rico. It distributes approximately 7,000 chemicals, solvents, additives and raw materials made by many of the nation's leading chemical manufacturers and a growing number of offshore producers. It specializes in supplying mixed truckloads and less-than-truckload quantities to many industries, including the paint and coatings, inks, adhesives, polymer, rubber, industrial and institutional compounding, automotive, appliance and paper industries. It also offers customers chemical waste collection, disposal and recycling services, working in cooperation with major chemical waste services companies.

GENERAL POLYMERS DIVISION - This division markets a broad range of thermoplastic resins to injection molding, extruders, blow molders, and rotational molders in the plastics industry through distribution locations in the United States, Canada, Mexico and Puerto Rico. It also provides plastic material transfer and packaging services and less-than-truckload quantities of packaged thermoplastics. The division's basic resins group markets bulk wide-spec and off-grade thermoplastic resins to a variety of proprietary processors in North America.

FRP SUPPLY DIVISION - This division markets to customers in the reinforced plastics and cultured marble industries mixed truckload and less-than-truckload quantities of polyester resins, fiberglass and other specialty reinforcements, catalysts and allied products from distribution locations located throughout North America.

FINE INGREDIENTS DIVISION - This division distributes cosmetic and pharmaceutical specialty chemicals and food-grade and nutritional additives and ingredients across North America.

ASHLAND PLASTICS EUROPE - This division markets a broad range of thermoplastics to processors in Europe. Ashland Plastics Europe has distribution centers located in Belgium, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Spain, Sweden and the United Kingdom and has compounding manufacturing facilities located in Italy and Spain.

SPECIALTY CHEMICALS

COMPOSITE POLYMERS DIVISION - This division manufactures and sells a broad range of chemical-resistant, fire-retardant and general-purpose grades of unsaturated polyester and vinyl ester resins for the reinforced plastics industry. Key markets include the transportation, construction and marine industries. It has manufacturing plants in Jacksonville, Arkansas; Los Angeles, California; Bartow, Florida; Ashtabula, Ohio; Philadelphia, Pennsylvania; Kelowna, British Columbia, Canada; Benicarlo, Spain; and through a joint venture in Jeddah, Saudi Arabia. In addition, the division also manufactures products through other Ashland Chemical facilities located in Mississauga, Ontario, Canada and Neville Island, Pennsylvania.

FOUNDRY PRODUCTS DIVISION - This division manufactures and sells foundry chemicals worldwide, including sand-binding resin systems, refractory coatings, release agents, engineered sand additives, riser sleeves, and die lubricants. This division serves the global metal casting industry from 22 locations in 18 countries.

DREW INDUSTRIAL DIVISION - This division supplies specialized chemicals and consulting services for the treatment of boiler water, cooling water, steam, fuel and waste streams. It also supplies process chemicals and technical services to the pulp and paper and mining industries and additives to manufacturers of latex and paint. It conducts operations throughout North America, Europe and the Far East through subsidiaries, joint venture companies and distributors. The division has manufacturing plants in Kansas City, Kansas; Kearny, New Jersey; Houston, Texas; Ajax, Ontario, Canada; Somercotes, England; Singapore; Sydney and Perth, Australia; and Auckland, New Zealand.

ELECTRONIC CHEMICALS DIVISION - This division manufactures and sells a variety of ultrapure chemicals for the worldwide semiconductor industry through various manufacturing locations and also custom blends and packages ultrapure liquid chemicals to customer specifications. It recently opened a new \$45 million state-of-the-art manufacturing facility in Pueblo, Colorado. The division also operates manufacturing plants in Newark, California; Milan, Italy; Easton, Pennsylvania; and Dallas, Texas. In addition, it enters into long-term agreements to provide complete on-site chemical management services, including purchasing, warehousing and delivering chemicals for in-plant use, at major facilities of large consumers of high purity chemicals. This division formed a joint venture with Union Petrochemical Corporation of Taipei, Taiwan to build and operate an ultrapure process chemicals manufacturing facility in Taiwan. In addition, the division has acquired property in Korea to build a facility to manufacture specialty stripper products for semiconductor manufacturing.

SPECIALTY POLYMERS & ADHESIVES DIVISION - This division manufactures and sells specialty phenolic resins for paper impregnation and friction material bonding; acrylic polymers for pressure-sensitive adhesives; emulsion polymer isocyanate adhesives for structural wood bonding; polyurethane and epoxy structural adhesives for bonding fiberglass reinforced plastics, composites, thermoplastics and metals in automotive, recreational, and industrial applications; induction bonding systems for thermoplastic materials; elastomeric polymer adhesives and butyl rubber roofing tapes for commercial roofing applications; and vapor curing, high-performance urethane coatings systems. It has manufacturing plants in Calumet City, Illinois; Norwood, New Jersey; Ashland and Columbus, Ohio; and Totowa, New Jersey.

DREW MARINE DIVISION - This division supplies specialty chemicals for water and fuel treatment and general maintenance, as well as sealing products, welding and refrigerant products and fire fighting and safety services to the world's merchant marine fleet. Drew Marine currently provides shipboard technical service for more than 10,000 vessels from more than 100 locations serving 600 ports throughout the world.

PETROCHEMICALS

This division manufactures maleic anhydride at Neal, West Virginia, and Neville Island, Pennsylvania, and methanol near Plaquemine, Louisiana. Its Energy Services business unit provides industrial and commercial businesses with expert management of their total energy requirements, by sourcing and supplying natural gas and natural gas liquids.

OTHER MATTERS

DUBLIN, OHIO HEADQUARTERS TECHNICAL CENTER EXPANSION - In October 1998, Ashland Chemical completed construction of a 115,000-square-foot facility expanding its Technical Center in Dublin, Ohio.

For information on Ashland Chemical and federal, state and local statutes and regulations governing releases into the environment or protection of the environment, see "Item 1. Miscellaneous - Environmental Matters" and "Item 3. Legal Proceedings - Environmental Proceedings."

APAC

The APAC group of companies performs construction work such as paving, repairing and resurfacing highways, streets, airports, residential and commercial developments, sidewalks and driveways; grading and base work; and excavation and related activities in the construction of bridges and structures, drainage facilities and underground utilities in 14 southern and midwestern states. APAC also produces and sells construction materials, such as hot-mix asphalt and ready-mix concrete, crushed stone and other aggregate and, in certain markets, concrete block and specialized construction materials, such as architectural block.

To deliver its services and products, APAC utilizes extensive aggregate-producing properties and construction equipment. It currently has 24 permanent operating quarry locations, 32 other aggregate production facilities, 46 ready-mix concrete plants, 167 hot-mix asphalt plants and a fleet of over 10,000 mobile equipment units, including heavy construction equipment and transportation-related equipment.

Raw aggregate generally consists of sand, gravel, granite, limestone and sandstone. About 24% of the raw aggregate produced by APAC is used in APAC's own contract construction work and the production of various processed construction materials. The remainder is sold to third parties. APAC also purchases substantial quantities of raw aggregate from other producers whose proximity to the job site render it economically feasible. Most other raw materials, such as liquid asphalt, portland cement and reinforcing steel, are purchased from third parties. APAC is not dependent upon any one supplier or customer.

Approximately 60% of APAC's revenues are derived directly from highway and other public sector sources. The other 40% are derived from industrial and commercial customers, private developers and other contractors to the public sector. The 1998 highway funding authorization package increased federal funding for highways by \$52 billion over a six-year period. More importantly, the states in which APAC operates should see an average increase in annual funding of 59% or \$3.3 billion, based on current estimates.

Climate and weather significantly affect revenues in the construction business. Due to its location, APAC tends to enjoy a relatively long construction season. Most of APAC's operating income is generated during the construction period of May to October.

Total backlog at September 30, 1998 was \$838 million, compared to \$693 million at September 30, 1997. The backlog orders at September 30, 1998 are considered firm, and a major portion is expected to be filled during fiscal 1999.

VALVOLINE

The Valvoline Company, a division of Ashland, is a marketer of automotive and industrial oils, automotive chemicals, automotive appearance products and automotive and environmental services, with sales in more than 140 countries. The Valvoline(R) trademark was federally registered in 1873 and is the oldest trademark for a lubricating oil in the United States. Valvoline is comprised of the following business units:

NORTH AMERICAN PRODUCTS - This unit, Valvoline's largest division, markets automotive, commercial, and industrial lubricants, automotive chemicals and automotive appearance products to a broad network of North American customers. This unit markets Valvoline branded motor oil, one of the top selling brands in the U.S. private passenger car and light truck market. In 1998, this unit introduced a line of premium synthetic SynPower(R) automobile chemicals for "under-the-hood" use.

North American Products also markets Eagle One(R) automotive appearance products, Zerex(R) antifreeze and Pyroil(R) automotive chemicals. Zerex is the second leading antifreeze brand in the United States. This division also markets R-12, an automotive refrigerant that was phased out of production in 1995. R-12 is being replaced in the market by a new generation of refrigerants.

The domestic commercial/fleet group of the North American Products unit continued its strategic alliance with Cummins Engine Company to distribute heavy-duty lubricants to the commercial market.

EAGLE ONE - Acquired in February 1998, Eagle One is a brand of premium automobile chemicals for "above-the-hood" applications. Products include waxes, polishes and wheel cleaners. Managed by Valvoline as a separate business unit, Eagle One markets its products through Valvoline's North American Products and Valvoline International divisions.

VALVOLINE INTERNATIONAL - Valvoline International markets Valvoline branded products, TECTYL(R) rust preventives and Eagle One automotive appearance products worldwide through company-owned affiliates or divisions in Argentina, Australia, Austria, Belgium, Denmark, France, Germany, Great Britain, Italy, the Netherlands, Poland, South Africa, Sweden and Switzerland. Licensees and distributors market products in other parts of Europe, Mexico, Central and South America, the Far East, the Middle East and certain African countries. Joint ventures have been established in Ecuador, India and the Netherlands. Packaging and blending plants and distribution centers in Australia, Canada, Denmark, the Netherlands, Sweden and the United States supply international customers.

VALVOLINE INSTANT OIL CHANGE(R) ("VIOC") - VIOC is one of the largest competitors in the expanding U.S. "fast oil change" service business, providing Valvoline with a significant share of the installed segment of the passenger car and light truck motor oil market. As of September 30, 1998, 391 company-owned and 183 franchised service centers were operating in 34 states.

In 1998, VIOC continued it's customer service innovation through its Maximum Vehicle Performance program ("MVP"). MVP is a computer-based program that maintains system-wide service records on all customer vehicles. MVP also contains a database on all car models, which allows employees to make service recommendations based on vehicle owner's manual recommendations.

ECOGARD, INC. - Ecogard, Inc. through its First Recovery division, collects used motor oil from a network of automotive aftermarket retailers and service businesses in 48 states and Puerto Rico. Completing Valvoline's "total fluid management" approach to customer service, First Recovery provides an environmental service to Valvoline customers in the United States, collecting used antifreeze and oil filters as well.

As a fulfillment of its strategy to market premium branded products worldwide, Valvoline began construction in 1998 of a \$4 million new product development laboratory at its headquarters complex in Lexington, Kentucky. The laboratory is expected to open in early calendar 1999.

REFINING AND MARKETING

Refining and Marketing operations are conducted by MAP and its subsidiaries, including its wholly-owned subsidiary, Speedway SuperAmerica LLC. As previously discussed, effective January 1, 1998, the major elements of Ashland's and USX-Marathon's refining, marketing and transportation operations were conveyed to MAP. Marathon has a 62% interest in MAP, and Ashland holds a 38% interest.

REFINING

MAP owns and operates seven refineries with an aggregate refining capacity of 935,000 barrels of crude oil per calendar day. The table below sets forth the location and daily throughput capacity of each of MAP's refineries as of September 30, 1998:

| Garyville, Louisiana | 232,000 |
|--------------------------|---------|
| Catlettsburg, Kentucky | 222,000 |
| Robinson, Illinois | 192,000 |
| Detroit, Michigan | 74,000 |
| Canton, Ohio | 73,000 |
| Texas City, Texas | 72,000 |
| St. Paul Park, Minnesota | |
| | |
| | 935,000 |
| | ====== |

MAP's refineries include crude oil atmospheric and vacuum distillation, fluid catalytic cracking, catalytic reforming, desulfurization and sulfur recovery units. The refineries have the capability to process a wide variety of crude oils and to produce typical refinery products, including reformulated gasoline ("RFG"). In addition to typical refinery products, the Catlettsburg refinery manufactures lubricating oils and a wide range of petrochemicals. During the nine months ended September 30, 1998, 73% of MAP's production of lubricating oils was purchased by Valvoline and 38% of MAP's production of petrochemicals was purchased by Ashland Chemical.

MAP also produces asphalt cements, polymerized asphalt, asphalt emulsions and industrial asphalts. Additionally, MAP manufactures petroleum pitch, primarily used in the graphite electrode, clay target and refractory industries.

The table below sets forth MAP's refinery input and refinery production by product group for the nine months ended September 30, 1998. Due to the recent formation of MAP, comparative information is not available.

| For the | Nine Months ended |
|--|-------------------|
| Sept | ember 30, 1998 |
| Refinery Input (In thousands of barrels per day) | 1,023.3 |
| Refined Product Yields (In thousands of barrels per day) | |
| GasolineDistillates | 539.8 269.2 |
| PropaneFeedstocks & Special Products | 20.9 71.7 |
| Heavy Fuel OilAsphalt | 47.4 69.3 |
| Total | 1,018.3 |

MAP and Epsilon Products Company have agreed to develop facilities to produce 800 million pounds per year of polymer grade propylene and polypropylene at the Garyville refinery. MAP will build and operate facilities to produce polymer grade propylene. Production of the polymer grade propylene is scheduled to begin in the second quarter of calendar 1999. Epsilon Products Company will construct and own the polypropylene facilities and market its output.

MARKETING

MAP's principal marketing areas for gasoline, kerosene and light oils include the Midwest, the upper Great Plains and the southeastern United States. MAP's production of gasoline, kerosene and light fuel oils is sold in 26 states through wholesale channels of distribution (including company-owned and exchange terminals in 25 states) and at retail through jobber and dealer-operated locations under the brand names Marathon(R) and Ashland(R). Gasoline is sold at wholesale primarily to independent marketers, jobbers and chain retailers who resell through several thousand retail outlets principally under their own names, and also under the Marathon and Ashland brand names. MAP also supplies lessee-dealer outlets using the Marathon and Ashland brand names. Gasoline, kerosene, distillates and aviation products are also sold to utilities, railroads, river towing companies, commercial fleet operators, airlines and governmental agencies.

The table below shows the volume of MAP's consolidated refined product sales for the nine months ended September 30, 1998.

 Refined Product Sales (In thousands of barrels per day)

 Gasoline.
 659.1

 Distillates.
 312.9

 Propane.
 20.8

 Feedstocks & Special Products.
 68.8

 Heavy Fuel Oil.
 48.4

 Asphalt.
 73.7

 Total.
 1,183.7

 =======

 Matching Buy/Sell Volumes included in above.
 38.4

To comply with provisions of the 1990 Amendments to the Clean Air Act, MAP sells RFG in a small part of its marketing territory where RFG is required, primarily Chicago, Illinois; Louisville, Kentucky; Northern Kentucky and Milwaukee, Wisconsin.

Retail sales of gasoline and diesel fuel are also made through MAP's wholly-owned subsidiary, Speedway SuperAmerica LLC, which operates 2,291 stores in 19 states in the Southeast and Midwest under brand names including Speedway(R), SuperAmerica(R), Rich(R), United, Bonded(R) and others. The convenience store-gasoline locations offer consumers gasoline, diesel fuel (at selected locations) and a broad mix of other products and services, such as fresh-baked goods, automated teller machines, video rentals, automotive accessories and a line of private-label items. The truck stops offer diesel fuel, gasoline and a variety of other services associated with such locations. Several truck stop and convenience store locations also have on-premises brand-name restaurants.

During the nine months ended September 30, 1998, 64% of the revenues (excluding excise taxes) of the Speedway SuperAmerica LLC stores were derived from the sale of gasoline and diesel fuel and 36% of such revenues were derived from the sale of merchandise.

SUPPLY AND TRANSPORTATION

The crude oil processed in MAP's refineries is obtained from negotiated lease, contract and spot purchases or exchanges. For the nine months ended September 30, 1998, MAP's negotiated lease, contract and spot purchases of U.S. crude oil for refinery input averaged 333,900 barrels per day (1 barrel = 42 United States gallons) including an average of 25,600 barrels per day acquired from Marathon Oil Company. For the nine months ended September 30, 1998, MAP's foreign crude oil requirements were met largely through purchases from various foreign national oil companies, producing companies and traders. Purchases of foreign crude oil represented 63% of MAP's crude oil requirements for the nine months ended September 30, 1998.

In addition, MAP, through its subsidiaries, is actively engaged in purchasing, selling and trading crude oil, principally at Midland, Texas; Cushing, Oklahoma; and St. James, Louisiana, three of the major distribution points for U.S. crude oil, as well as at major trading and distribution hubs in western Canada.

MAP's ownership or interest in domestic pipeline systems in its refining and marketing areas is significant. MAP owns, leases or has an ownership interest in 9,981 miles of active pipeline in 16 states. This network transports crude oil and refined products to and from terminals, refineries and other pipelines. It includes 2,639 miles of crude oil gathering lines, 4,485 miles of crude oil trunk lines and 2,857 miles of refined product lines.

MAP has a 46.7% ownership interest in LOOP LLC ("LOOP"), which is the owner and operator of the only U.S. deepwater port facility capable of receiving crude oil from very large crude carriers. Ashland has retained a 4% ownership interest in LOOP. MAP also owns a 49.9% ownership interest in LOCAP INC. ("LOCAP"), which is the owner and operator of a crude oil pipeline connecting LOOP to the Capline system. Ashland has retained an 8.6% ownership interest in LOCAP. In addition, MAP has a 37.169% ownership interest in the Capline system. These port and pipeline systems provide MAP with access to common carrier transportation from the Louisiana Gulf Coast to Patoka, Illinois. At Patoka, the Capline system connects with other common carrier pipelines owned or leased by MAP which provide transportation to MAP's refineries in Illinois, Kentucky, Michigan and Ohio.

MAP also has a stock interest in Minnesota Pipe Line Company, which owns a crude oil pipeline in Minnesota. Minnesota Pipe Line Company provides MAP with access to 270,000 barrels per day nominal capacity of crude oil common carrier transportation from Clearbrook, Minnesota to Cottage Grove, Minnesota, which is in the vicinity of MAP's St. Paul Park, Minnesota, refinery.

MAP's marine transportation operations include towboats and barges that transport refined products on the Ohio, Mississippi and Illinois rivers, their tributaries, and the Intracoastal Waterway. In addition, MAP leases on a long-term basis two 80,000 deadweight ton tankers, which are primarily used for third-party delivery of foreign crude oil to the United States. These tankers are not essential for MAP to satisfy its own crude oil requirements.

MAP leases rail cars in various sizes and capacities for movement of petroleum products and chemicals. MAP also owns a large number of tractor-trailers, tank trailers and general service trucks.

In addition, MAP owns and operates 88 terminal facilities from which it sells a wide range of petroleum products. These facilities are supplied by a combination of barges, pipeline, truck and rail. MAP also owns or operates a number of other terminals that are used in connection with the transportation of petroleum products or crude oil.

OTHER MATTERS

MAP experiences normal seasonal variations in its sales and operating results. This seasonality is due primarily to increased demand for gasoline during the summer driving season, higher demand for distillate during the winter heating season and increased demand for asphalt from the road paving industry during the construction season.

For information on MAP and federal, state and local statutes and regulations governing releases into the environment or protection of the environment, see "Item 1. Miscellaneous-Environmental Matters." For information relating to certain environmental litigation retained by Ashland, see "Item 3. Legal Proceedings-Environmental Proceedings."

ARCH COAL

Ashland owns approximately 55% of Arch Coal, Inc. ("Arch Coal"), a publicly-traded corporation (NYSE:ACI) resulting from the merger of Ashland Coal, Inc. and Arch Mineral Corporation on July 1, 1997. Arch Coal files periodic reports, including annual reports on Form 10-K, pursuant to the Securities Exchange Act of 1934.

Arch Coal is engaged in the production, transportation, processing and marketing of bituminous and sub-bituminous coal produced in Central Appalachia and the western and midwestern United States. Arch Coal is the nation's second largest coal producer, with annual production that accounts for almost 10% of annual U.S. coal production. Arch Coal concentrates primarily on acquiring and developing low-sulfur steam coal reserves for sale to electric utility customers in the United States and abroad. Arch Coal relies on third-party rail, barge and truck transportation to deliver coal to its domestic customers. Shipments to international customers are made primarily from a terminal facility in Newport News, Virginia, and a terminal facility in Los Angeles, California.

On June 1, 1998, Arch Coal acquired the Colorado and Utah coal operations of Atlantic Richfield Company ("ARCO") and simultaneously combined the acquired ARCO operations, Arch Coal's Wyoming operations and ARCO's Wyoming operations in a new joint venture named Arch Western Resources, LLC ("Arch Western"). Arch Western is 99% owned by Arch Coal and 1% owned by ARCO. All of the domestic coal reserves acquired from ARCO are compliance coal, meeting the sulfur dioxide emissions requirements of Phase II of the Clean Air Act.

The following discussion includes pro forma combined operating data which gives effect to the merger of Ashland Coal and Arch Mineral (which occurred on July 1, 1997) as if it had occurred at the beginning of each period presented and to the acquisition of ARCO's U.S. operations as of June 1, 1998. The pro forma combined operating data does not purport to represent the operating results which would have been achieved had the merger of Ashland Coal, Inc. and Arch Mineral Corporation actually occurred as of the beginning of the periods presented or dates indicated, or of the operating results which may be achieved in the future.

Arch Coal and its independent operating subsidiaries sold 67.3 million tons of coal in the twelve months ended September 30, 1998, as compared to 53.7 and 50.6 million tons sold in the twelve months ended September 30, 1997 and 1996, respectively. Of the total tonnage sold in the twelve months ended September 30, 1998 (which does not include tons sold by Canyon Fuel as Arch Coal's interest therein is accounted for on the equity method), approximately 76.5% was sold under long term contracts, as compared to 72.4% and 74.7% for the twelve months ended September 30, 1997 and 1996, respectively, with the balance being sold on the spot market. In the twelve months ended September 30, 1998, Arch Coal and its independent operating subsidiaries sold 3.8 million tons of coal in the export market (which does not include tons sold by Canyon Fuel), compared to 2.7 and 3.1 million tons in the twelve months ended September 30, 1997 and 1996, respectively.

During the twelve months ended September 30, 1998, Arch Coal's combined sales to affiliates of The Southern Company and affiliates of American Electric Power accounted for approximately 13.1% and 12.9%, respectively, of combined revenues from coal sales for such period. The loss of such customers could have a material adverse effect on Arch Coal.

As of September 30, 1998, Arch Coal estimates it owned or controlled measured (proven) and indicated (probable) coal reserves of approximately 3.4 billion tons, as set forth in the following table. Reserve estimates are prepared by Arch Coal's engineers and geologists and are reviewed and updated periodically. Total reserve estimates will change from time to time reflecting mining activities, analysis of new engineering and geological data, changes in reserve holdings and other factors. Anticipated losses from extraction and, where applicable, washing of the coal have been eliminated from the estimate. Arch Coal believes that a majority of these reserves have a sulfur content of less than 1.6 pounds of sulfur dioxide per million Btu, and a substantial portion have a sulfur content of less than 1.2 pounds of sulfur dioxide per million Btu. Ashland has not made an independent verification of the reserve estimate or sulfur content of the estimated reserves.

| RECOVERABLE COAL* | | | |
|--------------------|-----------|------------------|-----------|
| | Measured | Indicated | Total |
| | | | |
| | | (Thousands of To | ons) |
| Central Appalachia | 1,018,098 | 436,789 | 1,454,887 |
| Illinois | 308,579 | 101,499 | 410,078 |
| Colorado | 120,917 | 25,872 | 146,789 |
| Utah | 135,082 | 91,454 | 226,536** |
| Wyoming | 1,067,510 | 43,449 | 1,110,959 |
| Other | 0 | 28,815 | 28,815 |
| | | | |
| Total | 2,650,186 | 727,878 | 3,378,064 |
| | ======= | ====== | ======= |

^{*} Does not include reserves associated with the Thundercloud Tract acquired in October, 1998.

** Represents 100% of the reserves held by Canyon Fuel Company, LLC, in which Arch Coal holds a 65% interest.

On October 1, 1998, Arch Coal was the successful bidder on the 3,546 acre Thundercloud Tract in the Powder River Basin of Wyoming. The Thundercloud Tract contains an estimated 412 million tons of demonstrated coal reserves and is contiguous with Arch Coal's Black Thunder mine. Final approval of this coal lease is expected following routine governmental review.

Arch Coal's coal properties are either owned outright or controlled by lease. Royalties paid to lessors on leased properties are either on a fixed price per ton basis or on a percentage of the gross sales price basis. Most of these leases run until the exhaustion of mineable and merchantable coal. The remaining leases have primary terms ranging from one to 40 years from the date of their execution, with most containing options to renew. Approximately 73,778 acres of Arch Coal's total 638,518 acres of coal land (which totals include 100% of the acreage held by Canyon Fuel Company, LLC, in which Arch Coal holds a 65% interest) are leased from the federal government with terms expiring between January 1, 1999 and October 1, 2015, subject to readjustment and/or extension and to earlier termination for failure to meet diligent development requirements. Those term and federal leases covering principal reserves under Arch Coal's current mining plans are not scheduled to expire prior to expiration of those plans in 2003 (at Arch Coal's Coal Mac, Inc. operations) and 2006 (at the balance of Arch Coal's operations). Mining plans are not necessarily indicative of the life of the mine. The extent to which reserves will eventually be mined depends upon a variety of factors, including future economic conditions and governmental actions affecting both the mining and marketability of low-sulfur steam coal.

Arch Coal's Apogee Coal Company and Hobet Mining, Inc. subsidiaries are members of the Bituminous Coal Operators Association, and each is a signatory to a collective bargaining agreement with the United Mine Workers of America that expires on December 31, 2002. Two other Arch Coal subsidiaries are signatories to collective bargaining agreements with independent employee associations. Employees of the remainder of Arch Coal's operating subsidiaries are not represented by labor unions.

For information on federal and state statutes and regulations governing the coal industry, see "Item 1. Miscellaneous - Environmental Matters."

MISCELLANEOUS

ENVIRONMENTAL MATTERS

Ashland has implemented a company-wide environmental policy overseen by the Public Policy - Environmental Committee of Ashland's Board of Directors. Ashland's Environmental, Health and Safety group has the responsibility to ensure that Ashland's operating groups maintain environmental compliance in accordance with applicable laws and regulations.

Federal, state and local laws and regulations relating to the protection of the environment have a significant impact on how Ashland conducts its businesses. These include the Clean Air Act ("CAA") with respect to air emissions, the Clean Water Act ("CWA") with respect to water discharges, the Resource Conservation and Recovery Act ("RCRA") with respect to solid and hazardous waste generation, treatment, storage and disposal, the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA") and the Superfund Amendments and Reauthorization Act of 1986 ("SARA") with respect to releases and remediation of hazardous substances (CERCLA and SARA are sometimes referred to collectively as "Superfund"), the Toxic Substances Control Act ("TSCA") with respect to chemical formulation and use, the Oil Pollution Act of 1990 ("OPA 90") with respect to oil pollution, spill response and financial assurance requirements for marine operations, the Surface Mining Control and Reclamation Act of 1977 ("SMCRA") with respect to surface mining, the Federal Occupational Safety and Health Act ("OSHA") with respect to workplace health and safety standards, the Federal Mine Safety and Health Act of 1977 ("MSHA") with respect to health and safety standards on mining operations, and various other federal, state and local laws related to the environment, health and safety. In addition, many foreign countries have laws dealing with the same matters.

In connection with the formation of MAP, Marathon and Ashland each retained responsibility for certain environmental costs arising out of their respective prior ownership and operation of the facilities transferred to MAP. In certain situations, various threshold provisions apply, eliminating or reducing the financial responsibility of the contributing party until certain levels of expenditure have been reached. In other situations, sunset provisions gradually diminish the level of financial responsibility of the contributing party over time.

Ashland's capital expenditures for air, water and solid waste control facilities amounted to \$25 million in fiscal 1998, \$26 million in 1997 and \$38 million in 1996. The amounts for 1998 include expenditures for air, water and solid waste control facilities transferred to MAP for which Ashland has retained responsibility.

At September 30, 1998, Ashland's reserves for environmental assessments and remediation efforts were \$172 million, reflecting Ashland's current estimate of the costs which are most likely to be incurred over the period during which the clean-up will be performed to remediate identified environmental conditions for which costs are reasonably estimable.

Based on current environmental regulations, Ashland estimates that capital expenditures for air, water and solid waste control facilities will be \$30 million in fiscal 1999. Expenditures for investigatory and remedial efforts in future years are subject to the uncertainties associated with environmental exposures, including identification of new environmental sites and changes in laws and regulations and their application. Such expenditures, however, are not expected to have a material adverse effect on Ashland's consolidated financial position, cash flow or liquidity. For information regarding the 1996 multimedia inspections which were conducted by the United States Environmental Protection Agency ("EPA") at Ashland's three former refineries, see "Item 3. Legal Proceedings - Environmental Proceedings."

AIR - The CAA imposes stringent limits on air emissions, establishes a federally mandated operating permit program and allows for civil and criminal enforcement sanctions. The requirements of the CAA have a major impact on both the day-to-day activities of the refining, distribution and marketing operations of MAP and MAP's product formulation decisions. CAA requirements have a lesser effect on the other operations of Ashland. The CAA establishes air quality attainment deadlines and control requirements based on the severity of air pollution in a geographical area. In addition, the standards for RFG will become even more stringent in the year 2000, when Phase II RFG will be required.

In July 1997, the EPA promulgated revisions to the National Ambient Air Quality Standards for ground level ozone and particulate matter, both of which are primarily associated with auto emissions. The ground level ozone is also associated with the use of certain volatile organic compounds used and distributed in Ashland's chemical business. The impact of these revised standards could be significant and lead to additional reduction of ozone precursors, but the potential financial effects on Ashland and MAP cannot be reasonably estimated until the states develop and implement State Implementation Plans covering their standards.

WATER - Ashland's businesses maintain numerous discharge permits as required under the National Pollutant Discharge Elimination System of the CWA, and have implemented systems to oversee their compliance efforts. In addition, MAP is regulated under OPA 90 which amended the CWA. OPA 90 requires the owner or operator of a tank vessel or a facility to maintain an emergency plan to respond to discharges of oil or hazardous substances. Also, in case of such spills, OPA 90 requires responsible companies to pay removal costs and damages, including damages to natural resources, provides for substantial civil penalties, and allows for the imposition of criminal sanctions. Additionally, OPA 90 requires that new tank vessels entering or operating in domestic waters be double-hulled, and that existing tank vessels that are not double-hulled be retrofitted or removed from domestic service, according to a phase-out schedule.

SOLID WASTE - Ashland's businesses are subject to RCRA, which establishes standards for the management of solid and hazardous wastes. Besides affecting current waste disposal practices, RCRA also addresses the environmental effects of certain past waste disposal operations, the recycling of wastes and the regulation of underground storage tanks ("USTs") containing regulated substances. Under RCRA, USTs used for retail distribution of petroleum products must be brought into compliance with a variety of engineering specifications and leak protection technologies by calendar year end 1998. MAP anticipates that its USTs will be in timely compliance. In addition, new laws are being enacted and regulations are being adopted by various regulatory agencies on a continuing basis, and the costs of compliance with these new rules cannot be estimated until the manner in which they will be implemented has been more accurately defined.

REMEDIATION - MAP operates certain retail outlets where, during the normal course of operations, releases of petroleum products from USTs have occurred. Federal and state laws require that contamination caused by such releases at these sites be assessed and, if necessary, remediated to meet applicable standards. The enforcement of the UST regulations under RCRA has been delegated to the states, which administer their own UST programs.

Ashland also currently or has in the past operated various facilities where, during the normal course of operations, releases of hazardous constituents have occurred. Federal and state laws, including but not limited to RCRA and various remediation laws, require that contamination caused by such releases be assessed and, if necessary, remediated to meet applicable standards.

SURFACE MINING - SMCRA was enacted to regulate the surface mining of coal and the surface effects of underground coal mining. All states in which Arch Coal's subsidiaries operate have similar laws and regulations enacted pursuant to SMCRA. These laws impose, among other requirements, environmental performance standards and requirements to perform reclamation.

A lawsuit brought by private individuals has challenged the legality of surface mining in West Virginia which results in the construction of "valley fills." A valley fill is an engineered work located at a lower elevation from the surface mine where the excess rock and earth is placed during mining. Arch Coal is contesting this legal challenge vigorously, but it is impossible to predict the outcome of these proceedings with certainty. If these proceedings result in substantial changes in permits, significant delays in obtaining new permits, or substantial new restrictions on Arch Coal's existing operations, such changes, delays or restrictions would have a material adverse affect on Arch Coal's operations.

RESEARCH

Ashland conducts a program of research and development to invent and improve products and processes and to improve environmental controls for its existing facilities. It maintains its primary research facilities in Dublin, Ohio. Research and development costs are expensed as they are incurred and totaled \$28 million in fiscal 1998 (\$29 million in 1997 and \$28 million in 1996).

COMPETITION

In all its operations, Ashland is subject to intense competition both from companies in the industries in which it operates and from products of companies in other industries. In most of these segments, competition is based primarily on price, with factors such as reliability of supply, service and quality also being considered. Ashland Chemical competes in a number of chemical distribution, specialty chemical and petrochemical markets. Its chemicals and solvents distribution businesses compete with national, regional and local companies throughout North America. Its plastics distribution businesses compete worldwide. Ashland Chemical's specialty chemicals businesses compete globally in selected niche markets, largely on the basis of technology and service, while holding proprietary technology in virtually all their specialty chemicals businesses. Petrochemicals are largely commodities, with pricing and quality being the most important factors. The majority of the business for which APAC competes is obtained by competitive bidding.

Valvoline competes primarily with domestic oil companies and, to a lesser extent, with international oil companies on a worldwide basis. Valvoline's brand recognition and increasing market share in the "fast oil change" market are important competitive factors. MAP competes primarily with other domestic refiners and, to a lesser extent, with imported products. MAP's refineries are located close to its market areas, giving MAP a geographic advantage in supplying these regions. MAP's retail operations compete with major oil companies, independent oil companies and independent marketers. The coal industry is highly competitive, and Arch Coal competes (principally in price, location and quality of coal) with other coal producers.

FORWARD-LOOKING STATEMENTS

This Form 10-K and the documents incorporated by reference contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, including various information within the "Capital Resources," "Derivative Instruments," "Year 2000 Readiness" and "Outlook" sections in Management's Discussion and Analysis in Ashland's Annual Report. Words such as "anticipates," "believes," "estimates," "expects," "is likely," "predicts," and variations of such words and similar expressions are intended to identify such forward-looking statements. Although Ashland believes that its expectations are based on reasonable assumptions, it cannot assure that the expectations contained in such statements will be achieved. Important factors which could cause actual results to differ materially from those contained in such statements are discussed under "Risks and Uncertainties" in Note A of Notes to Consolidated Financial Statements in Ashland's Annual Report. Other factors and risks affecting Ashland's revenues and operations are discussed below, as well as in other portions of this Form 10-K.

Ashland's operations are affected by domestic and international political, legislative, regulatory and legal actions. Such actions may include changes in the policies of OPEC or other developments affecting oil-producing countries, changes in tax laws, and changes in environmental, health and safety laws.

Domestic and international economic conditions, such as recessionary trends, inflation, interest and monetary exchange rates, as well as changes in demand for products and services, can also have a significant effect on Ashland's operations. Although Ashland maintains reserves for anticipated liabilities and carries various levels of insurance, Ashland could be affected by civil, criminal, regulatory or administrative actions, claims or proceedings. In addition, climate and weather can significantly affect Ashland in several of its operations such as its construction activities, MAP's heating oil businesses and Arch Coal's sales and production of coal.

ITEM 2. PROPERTIES

Ashland's corporate headquarters, which is leased, is located in Russell, Kentucky. Effective January 4, 1999, Ashland's corporate headquarters, which will be leased, will be located in Covington, Kentucky. Principal offices of other major operations are located in Dublin, Ohio (Chemical); Atlanta, Georgia (APAC); and Lexington, Kentucky (Valvoline), all of which are leased. Ashland's principal manufacturing, marketing and other materially important physical properties are described under the appropriate segment under Item 1. Additional information concerning certain leases may be found in Note H of Notes to Consolidated Financial Statements in Ashland's Annual Report.

ITEM 3. LEGAL PROCEEDINGS

ENVIRONMENTAL PROCEEDINGS - (1) As of September 30, 1998, Ashland had been identified as a "potentially responsible party" ("PRP") under Superfund or similar state laws for potential joint and several liability for clean-up costs in connection with alleged releases of hazardous substances in connection with 83 waste treatment or disposal sites. These sites are currently subject to ongoing investigation and remedial activities, overseen by the EPA or a state agency, in which Ashland is typically participating as a member of a PRP group. Generally, the type of relief sought includes remediation of contaminated soil and/or groundwater, reimbursement for past costs of site clean-up and administrative oversight, and/or long-term monitoring of environmental conditions at the sites. Ashland carefully monitors the investigatory and remedial activity at many of these sites. Based on its experience with site remediation, its familiarity with current environmental laws and regulations, its analysis of the specific hazardous substances at issue, the existence of other financially viable PRPs and its current estimates of investigatory, clean-up and monitoring costs at each site, Ashland believes that its diability at these sites, either individually or in the aggregate, after taking into account its insurance coverage and established reserves, will not have a material adverse effect on Ashland's consolidated financial position, cash flow or liquidity. However, such matters could have a material effect on results of operations in a particular quarter or fiscal year as they develop or as new issues are identified. Estimated costs for these matters are recognized in accordance with generally accepted accounting principles governing the likelihood that costs will be incurred and Ashland's ability to reasonably estimate future costs.

(2) In 1996, the EPA conducted so-called multimedia inspections of Ashland's three refineries in which it evaluated virtually all aspects of the environmental operations of these facilities. The EPA and Ashland have reached an agreement and have finalized a settlement document with respect to alleged violations discovered during these inspections. Ashland has agreed to pay \$5.864 million in civil penalties. Ashland will also undertake specific remedial projects and improvements at the refinery sites, as well as a number of supplemental environmental projects involving improvements to the facilities' operations, which will exceed current state and federal environmental requirements. The total cost of these projects is expected to be \$26 million. In connection with the formation of MAP, Ashland agreed to retain responsibility for matters arising out of the multimedia inspections.

LOCKHEED LITIGATION - Ashland is a defendant in a series of cases involving more than 600 former workers at the Lockheed aircraft manufacturing facility in Burbank, California. The plaintiffs allege personal injuries resulting from exposure to chemicals sold to Lockheed by Ashland, and inadequate labeling of such chemicals. The cases are being tried in the Superior Court of the State of California for the County of Los Angeles. To date, five trials involving approximately 130 plaintiffs have resulted in total verdicts adverse to Ashland, after taking into consideration a reduction of the punitive damages award in the fifth trial ordered by the trial judge, of \$79.4 million (\$73.9 million of which is punitive damages). The damage awards have been, or will be, appealed. Ashland continues to believe, upon advice of counsel, that there is a substantial probability that the punitive damage awards will be reversed or substantially further reduced, and that, after taking into account probable recoveries under insurance policies, these cases will not have a material adverse effect on Ashland's consolidated financial position, cash flow or liquidity.

In addition, Ashland filed an action in Kentucky against approximately 44 insurance carriers to confirm coverage for liabilities under the Lockheed cases. One of the insurance carriers in turn filed an action in California seeking to deny insurance coverage for liabilities in these cases

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

No matters were submitted to a vote of security holders, through the solicitation of proxies or otherwise, during the quarter ended September 30, 1998.

ITEM X. EXECUTIVE OFFICERS OF ASHLAND

The following is a list of Ashland's executive officers, their ages and their positions and offices during the last five years (listed alphabetically after the top two officers as to other Senior Vice Presidents, Administrative Vice Presidents and other executive officers.)

PAUL W. CHELLGREN* (age 55) is Chairman of the Board, Chief Executive Officer and Director of Ashland and a Director of Arch Coal, Inc. and has served in such capacities since 1997, 1996, 1992 and 1997, respectively. During the past five years, he has also served as President and Chief Operating Officer of Ashland.

JOHN A. BROTHERS* (age 58) is Executive Vice President of Ashland and has served in such capacities since 1997. During the past five years, he has also served as Senior Vice President and Group Operating Officer - The Valvoline Company and Ashland Chemical Company.

JAMES R. BOYD* (age 52) is Senior Vice President and Group Operating Officer of Ashland - APAC, Inc. and a Director of Arch Coal, Inc., having served in such capacities since 1989, 1993 and 1997, respectively.

DAVID J. D'ANTONI* (age 53) is Senior Vice President of Ashland and President of Ashland Chemical Company and has served in such capacities since 1988.

THOMAS L. FEAZELL* (age 61) is Senior Vice President, General Counsel and Secretary of Ashland and a Director of Arch Coal, Inc. and has served in such capacities since 1992, 1981, 1992 and 1997, respectively.

JAMES J. O'BRIEN (age 44) is Senior Vice President of Ashland and President of The Valvoline Company and has served in such capacities since 1997 and 1995, respectively. During the past five years, he has also served as Vice President of Ashland, Vice President of Ashland Petroleum Company and Executive Assistant to the Chief Executive Officer.

CHARLES F. POTTS (age 54) is Senior Vice President of Ashland and President of APAC, Inc. and has served in such capacities since 1992.

J. MARVIN QUIN* (age 51) is Senior Vice President and Chief Financial Officer of Ashland and a Director of Arch Coal, Inc. and has served in such capacities since 1992 and 1997, respectively.

KENNETH L. AULEN (age 49) is Administrative Vice President and Controller of Ashland and has served in such capacities since 1992.

PHILIP W. BLOCK* (age 51) is Administrative Vice President - Human Resources of Ashland and has served in such capacity since 1992.

LAMAR M. CHAMBERS (age 44) is Auditor of Ashland and has served in such capacity since September 1998. During the past five years, he has also served as Vice President and Controller of MAP, Administrative Vice President - Finance of Ashland Petroleum, Executive Assistant to the Chief Executive Officer and Assistant Controller of Ashland.

DANIEL B. HUFFMAN (age 53) is Treasurer of Ashland and has served in such capacity since November 1998. During the past five years, he has also served as Assistant Treasurer of Ashland.

Each executive officer (other than Vice Presidents who are appointed by Ashland's management) is elected by the Board of Directors of Ashland to a term of one year, or until his or her successor is duly elected, at the annual meeting of the Board of Directors, except in those instances where the officer is elected other than at an annual meeting of the Board of Directors, in which case his or her tenure will expire at the next annual meeting of the Board of Directors unless the officer is re-elected.

^{*}Member of Ashland's Executive Committee

ITEM 5. MARKET FOR REGISTRANT'S COMMON STOCK AND RELATED SECURITY HOLDER

There is hereby incorporated by reference the information appearing in Note O of Notes to Consolidated Financial Statements in Ashland's Annual Report.

At September 30, 1998, there were approximately 20,900 holders of record of Ashland's Common Stock. Ashland Common Stock is listed on the New York and Chicago stock exchanges (ticker symbol ASH) and has trading privileges on the Boston, Cincinnati, Pacific, Philadelphia and Amsterdam stock exchanges.

ITEM 6. SELECTED FINANCIAL DATA

There is hereby incorporated by reference the information appearing under the caption "Five-Year Selected Financial Information" on Page 62 in Ashland's Annual Report.

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

There is hereby incorporated by reference the information appearing under the caption "Management's Discussion and Analysis" on Pages 34 to 41 in Ashland's Annual Report.

ITEM 7A. OUANTITATIVE AND OUALITATIVE DISCLOSURES ABOUT MARKET RISK

There is hereby incorporated by reference the information appearing under the caption "Derivative Instruments" on Page 39 in Ashland's Annual Report.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

There is hereby incorporated by reference the consolidated financial statements appearing on Pages 43 through 61 in Ashland's Annual Report.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None

PART III

ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT

There is hereby incorporated by reference the information to appear under the caption "Ashland Inc.'s Board of Directors" in Ashland's definitive Proxy Statement for its January 28, 1999 Annual Meeting of Shareholders, which will be filed with the SEC within 120 days after September 30, 1998 ("Proxy Statement"). See also the list of Ashland's executive officers and related information under "Executive Officers of Ashland" in Part I - Item X herein.

ITEM 11. EXECUTIVE COMPENSATION

There is hereby incorporated by reference the information to appear under the captions "Executive Compensation," "Compensation of Directors" and "Personnel and Compensation Committee Interlocks and Insider Participation" in Ashland's Proxy Statement.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

There is hereby incorporated by reference the information to appear under the caption "Stock Ownership of Directors and Certain Officers of Ashland" and the information regarding the ownership of securities of Ashland in Ashland's Proxy Statement.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

There is hereby incorporated by reference the information to appear under the caption "Business Relationships" in Ashland's Proxy Statement.

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

- (a) DOCUMENTS FILED AS PART OF THIS REPORT
- (1) and (2) Financial Statements and Financial Schedule
 The consolidated financial statements and financial schedule of
 Ashland presented or incorporated by reference in this report are listed in
 the index on Page 19.

(3) Exhibits

- 3.1 Second Restated Articles of Incorporation of Ashland, as amended to January 30, 1998 (filed as Exhibit 3 to Ashland's Form 10-Q for the quarter ended December 31, 1997, and incorporated herein by reference).
- 3.2 Bylaws of Ashland, as amended to March 19, 1998 (filed as Exhibit 3 to Ashland's Form 10-K/A (Amendment No. 1) for the fiscal year ended September 30, 1998 filed on May 1, 1998, and incorporated herein by reference).
- 4.1 Ashland agrees to provide the SEC, upon request, copies of instruments defining the rights of holders of long-term debt of Ashland, and all of its subsidiaries for which consolidated or unconsolidated financial statements are required to be filed with the SEC.
- 4.2 Indenture, dated as of August 15, 1989, as amended and restated as of August 15, 1990, between Ashland and Citibank, N.A., as Trustee (filed as Exhibit 4(a) to Ashland's Form 10-K for the fiscal year ended September 30, 1991, and incorporated herein by reference).
- 4.3 Rights Agreement, dated as of May 16, 1996, between Ashland Inc. and Harris Trust and Savings Bank, together with Form of Right Certificate (filed as Exhibits 4(a) and 4(c), respectively, to Ashland's Form 8-A filed with the SEC on May 16, 1996, and incorporated herein by reference).

The following Exhibits 10.1 through 10.18 are compensatory plans or arrangements or management contracts required to be filed as exhibits pursuant to Item 601(b)(10)(ii)(A) of Regulation S-K.

- 10.1 Amended Stock Incentive Plan for Key Employees of Ashland Inc. and its Subsidiaries (filed as Exhibit 10.1 to Ashland's Form 10-K for the fiscal year ended September 30, 1996, and incorporated herein by reference).
- 10.2 Ashland Inc. Deferred Compensation and Stock Incentive Plan for Non-Employee Directors.
- 10.3 Ashland Inc. Director Retirement Plan (filed as Exhibit 10(c).3 to Ashland's Form 10-K for the fiscal year ended September 30, 1988, and incorporated herein by reference).
- 10.4 Ninth Amended and Restated Ashland Inc. Supplemental Early Retirement Plan for Certain Key Executive Employees.
- 10.5 Ashland Inc. Amended Performance Unit Plan (filed as Exhibit 10.5 to Ashland's Form 10-K for the fiscal year ended September 30, 1994, and incorporated herein by reference).
- 10.6 Ashland Inc. Incentive Compensation Plan (filed as Exhibit 10.6 to Ashland's Form 10-K for the fiscal year ended September 30, 1993, and incorporated herein by reference).
- 10.7 Ashland Inc. Director Death Benefit Program (filed as Exhibit 10(c).10 to Ashland's Form 10-K for the fiscal year ended September 30, 1990, and incorporated herein by reference).

- 10.9 Forms of Ashland Inc. Executive Employment Contract between Ashland Inc. and certain executive officers of Ashland (filed as Exhibit 10(c).12 to Ashland's Form 10-K for the fiscal year ended September 30, 1989, and incorporated herein by reference).
- 10.10 Form of Indemnification Agreement between Ashland Inc. and each member of its Board of Directors (filed as Exhibit 10(c).13 to Ashland's Form 10-K for the fiscal year ended September 30, 1990, and incorporated herein by reference).
- 10.11 Ashland Inc. Nonqualified Excess Benefit Pension Plan.
- 10.12 Ashland Inc. Long-Term Incentive Plan (filed as Exhibit 10.12 to Ashland's Form 10-K for the fiscal year ended September 30, 1996, and incorporated herein by reference).
- 10.13 Ashland Inc. Directors' Charitable Award Program (filed as Exhibit 10.13 to Ashland's Form 10-K for the fiscal year ended September 30, 1996, and incorporated herein by reference).
- 10.14 Ashland Inc. 1993 Stock Incentive Plan (filed as Exhibit 10.14 to Ashland's Form 10-K for the fiscal year ended September 30, 1996, and incorporated herein by reference).
- 10.15 Ashland Inc. 1995 Performance Unit Plan (filed as Exhibit 10.15 to Ashland's Form 10-K for the fiscal year ended September 30, 1996, and incorporated herein by reference).
- by reference).

 10.16 Ashland Inc. Incentive Compensation Plan for Key Executives (filed as Exhibit 10.16 to Ashland's Form 10-K for the fiscal year ended September 30, 1996, and incorporated herein by reference).
- 10.17 Ashland Inc. Deferred Compensation Plan (filed as Exhibit 10.17 to Ashland's Form 10-K for the fiscal year ended September 30, 1997, and incorporated herein by reference).
- 10.18 Ashland Inc. 1997 Stock Incentive Plan.
- Computation of Earnings Per Share (appearing on Page
 49 of Ashland's Annual Report to Shareholders,
 incorporated by reference herein, for the fiscal year
 ended September 30, 1998).

 Portions of Ashland's Annual Report to Shareholders,
- Portions of Ashland's Annual Report to Shareholders, incorporated by reference herein, for the fiscal year ended September 30, 1998.
- 21 List of subsidiaries.
- 23 Consent of independent auditors.
- Power of Attorney, including resolutions of the Board of Directors.
- 27.1 Financial Data Schedule for the fiscal year ended September 30, 1998.
- 27.2 Restated Financial Data Schedule for the fiscal year ended September 30, 1997.
- 27.3 Restated Financial Data Schedule for the fiscal year ended September 30, 1996.

Upon written or oral request, a copy of the above $\mbox{\ \ exhibits\ \ will\ be}$ furnished at cost.

(b) REPORTS ON FORM 8-K

None

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.

ASHLAND INC. (Registrant)

By: /s/ Kenneth L. Aulen

(Kenneth L. Aulen, Administrative Vice President and Controller)

Date: November 30, 1998

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, IN THE CAPACITIES INDICATED, ON NOVEMBER 30, 1998.

Capacity

Signatures

RALPH E. GOMORY

| /s/ PAUL W. CHELLGREN | Chairman of the Board, Chief Executive Officer and Director |
|--------------------------------------|--|
| /s/ J. MARVIN QUIN J. MARVIN QUIN | Senior Vice President and Chief Financial Officer |
| /s/ KENNETH L. AULEN | Administrative Vice President, Controller and Principal Accounting Officer |
| * SAMUEL C. BUTLER | Director |
| * FRANK C. CARLUCCI | Director |
| * ERNEST H. DREW | Director |
| JAMES B. FARLEY | Director |
| * | |

Director

BERNADINE P. HEALY

*
Director

*
Director

MANNIE L. JACKSON

*
Director

PATRICK F. NOONAN

*
Director

Director

Director

Director

Director

Director

Director

MICHAEL D. ROSE

*
Director

WILLIAM L. ROUSE , JR.

* By: /s/ Thomas L. Feazell
Thomas L. Feazell
Attorney-in-Fact

Date: November 30, 1998

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*The consolidated financial statements appearing on Pages 43 through 61 in Ashland's Annual Report are incorporated by reference in this Annual Report on Form 10-K.

Schedules other than that listed above have been omitted because of the absence of the conditions under which they are required or because the information required is shown in the consolidated financial statements or the notes thereto. Separate financial statements for MAP and Arch Coal required by Rule 3-09 of Regulation S-X will be filed as an amendment to this Form 10-K within 90 days after the end of these entities' fiscal years ending December 31, 1998. Separate financial statements of other unconsolidated affiliates are omitted because each company does not constitute a significant subsidiary using the 20% tests when considered individually. Summarized financial information for such affiliates is disclosed in Note D of Notes to Consolidated Financial Statements in Ashland's Annual Report.

REPORT OF INDEPENDENT AUDITORS

We have audited the consolidated financial statements and schedule of Ashland Inc. and consolidated subsidiaries listed in the accompanying index to financial statements and financial schedule (Item 14(a)). These financial statements and schedule are the responsibility of Ashland's management. Our responsibility is to express an opinion on these financial statements and schedule 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 listed in the accompanying index to financial statements (Item 14(a)) present fairly, in all material respects, the consolidated financial position of Ashland Inc. and consolidated subsidiaries at September 30, 1998 and 1997, and the consolidated results of their operations and their cash flows for each of the three years in the period ended September 30, 1998, in conformity with generally accepted accounting principles. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

/s/ Ernst & Young LLP

Louisville, Kentucky November 4, 1998 Ashland Inc. and Subsidiaries
SCHEDULE II - VALUATION AND QUALIFYING ACCOUNTS

(In millions)

Balance at beginning charged to Reserves Other at end Of year earnings utilized changes of year

| (In millions) Description | beginning | charged to | Reserves | Other | at end |
|--|-----------|------------|--------------------|-----------|------------|
| | of year | earnings | utilized | changes | of year |
| YEAR ENDED SEPTEMBER 30, 1998 Reserves deducted from asset accounts Accounts receivable Inventories | \$25 | \$ 8 | \$(10) (F1) | \$ (4) | \$19 |
| | 11 | 2 | (2) | - | 11 |
| YEAR ENDED SEPTEMBER 30, 1997 Reserves deducted from asset accounts Accounts receivable Inventories | \$27 | \$ 9 | \$(10) (F1) | \$ (1) | \$25 |
| | 10 | 2 | (1) | - | 11 |
| YEAR ENDED SEPTEMBER 30, 1996 Reserves deducted from asset accounts Accounts receivable Inventories | \$25 6 | \$10 6 | \$ (8) (F1) (2) | \$ - - | \$27 10 |

(F1) Uncollected amounts written off, net of recoveries of \$2 million in 1998, 1997 and 1996.

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EXHIBIT INDEX

| Exhibit No. | | Description |
|-------------|---|--|
| 10.2 | - | Ashland Inc. Deferred Compensation and Stock Incentive Plan for Non-Employee Directors. |
| 10.4 | - | Ninth Amended and Restated Ashland Inc. Supplemental Early Retirement Plan for Certain Key Executive Employees. |
| 10.11 | - | Ashland Inc. Nonqualified Excess Benefit Pension Plan. |
| 10.18 | - | Ashland Inc. 1997 Stock Incentive Plan. |
| 13 | - | Portions of Ashland's Annual Report to Shareholders, incorporated by reference herein, for the fiscal year ended September 30, 1998. |
| 21 | - | List of subsidiaries. |
| 23 | - | Consent of independent auditors. |
| 24 | - | Power of Attorney, including resolutions of the Board of Directors. |
| 27.1 | - | Financial Data Schedule for the fiscal year ended September 30, 1998. |
| 27.2 | - | Restated Financial Data Schedule for the fiscal year ended September 30, 1997. |
| 27.3 | - | Restated Financial Data Schedule for the fiscal year ended September 30, 1996. |

ASHLAND INC. DEFERRED COMPENSATION PLAN FOR NON-EMPLOYEE DIRECTORS (Amended as of January 28, 1998)

ARTICLE I. GENERAL PROVISIONS

PURPOSE

The purpose of this Ashland Inc. Deferred Compensation Plan For Non-Employee Directors (the "Plan") is to provide each Director with an opportunity to defer some or all of the Director's Fees as a means of saving for retirement or other purposes. In addition, the Plan provides Directors with the ability to increase their proprietary interest in the Company's long-term prospects by permitting Directors to receive all or a portion of their Fees in Ashland Common Stock.

DEFINITIONS

The following definitions shall be applicable throughout the Plan:

- (a) "Accounting Date" means the Business Day on which a calculation concerning a Participant's Compensation Account is performed, or as otherwise defined by the Committee.
- (b) "Act" means the Securities Act of 1933, as amended from time
- (c) "Beneficiary" means the person(s) designated by a Participant in accordance with Article IV, Section 1.
- (d) "Board" $\,$ means the Board of $\,$ Directors $\,$ of Ashland Inc. or its designee.
- (e) "Business Day" means a day on which the New York Stock Exchange is open for trading activity.
- (f) "Change in Control" shall be deemed to occur (1) upon the approval of the shareholders of the Company (or if such approval is not required, upon the approval of the Board) of (A) any consolidation or merger of the Company in which the Company is not the continuing or surviving corporation or pursuant to which shares of Common Stock would be converted into cash, securities or other property other than a merger in which the holders of Common Stock immediately prior to the merger will have the same proportionate ownership of Common Stock of the surviving corporation immediately after the merger, (B) any sale, lease, exchange, or other transfer (in one transaction or a series of related transactions) of all or substantially all the assets of the Company, or (C) adoption of any plan or proposal for the liquidation or dissolution of the Company, (2) when any "person" (as defined in Section 3(a)(9) or 13(d) of the Exchange Act), other than the Company or any subsidiary or employee benefit plan or trust maintained by the Company, shall become the "beneficial owner" (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of more than 15% of the Common Stock outstanding at the time, without the approval of the Board, or (3) if at any time during a period of two consecutive years, individuals who at the beginning of such period constituted the Board shall cease for any reason to constitute at least a majority thereof, unless the election or the nomination for election by the Company's shareholders of each new director during such two-year period was approved by a vote of at least two-thirds of the directors then still in office who were directors at the beginning of such two-year period.
- (g) "Code" means the Internal Revenue Code of 1986, as amended from time to time.
- (h) "Committee on Directors" $\,$ means the Committee on Directors of the Board or its designee.
- (i) "Common Stock" means the common stock, \$1.00 par value, of Ashland Inc. $\,$
- (j) "Common Stock Fund" means that investment option, approved by the Committee on Directors, in which a Participant's Retirement Account may be deemed to be invested and may earn income based on a hypothetical investment in Common Stock.
 - (k) "Company" means Ashland Inc., its divisions and subsidiaries.
- (1) "Corporate Human Resources" means the Corporate Human Resources Department of the Company.
- (m) "Credit Date" means the date on which any Fees would otherwise have been paid to the Participant or in the case of the Participant's designation of investment option changes, within three Business Days after the Participant's designation is received by Corporate Human Resources, or as otherwise designated by the Committee.
- (n) "Deferral Account" means the account(s) to which the Participant's Deferred Fees are credited and from which, pursuant to Article III, Section 5, distributions are made.
- (o) "Deferred $\,$ Fees" means the Fees elected by the $\,$ Participant to be deferred pursuant to the Plan.
 - (p) "Director" means any non-employee director of the Company.
 - (q) "Disability" means a Director's incapacity, due to physical or

mental illness, resulting in an inability to attend to his or her duties and responsibilities as a member of the Board.

- (r) "Election" means a Participant's delivery of a written notice of election to the Secretary of the Company electing to defer payment of his or her Fees or to receive such Fees in the form of Common Stock.
- (s) "Exchange Act" means the $\,$ Securities $\,$ Exchange Act of 1934, as amended.
- (t) "Fair Market Value" means the price of a share of Common Stock, as reported on the Composite Tape for New York Stock Exchange issues on the date and at the time designated by the Company.
- (u) "Fees" mean the annual retainer and meeting fees, as well as any per diem compensation for special assignments, earned by a Director for his or her service as a member of the Board during a calendar year or portion thereof.
- (v) "Fiscal Year" means that annual period commencing October 1 and ending the following September 30.
- (w) "Participant" means a Director who has elected to defer payment of all or a portion of his or her Fees and/or to receive all or a specified portion of his or her Fees in shares of Common Stock.
- (x) "Payment Commencement Date" means the date payments of amounts deferred begin pursuant to Article III, Section 6.
- (y) "Personal Representative" means the person or persons who, upon the disability or incompetence of a Director, shall have acquired on behalf of the Director, by legal proceeding or otherwise, the right to receive the benefits specified in this Plan.
- $\mbox{(z)}$ "Plan" means this Ashland Inc. Deferred $\mbox{ Compensation Plan For Non-Employee Directors.$
- (aa) "Stock Account" means an account by that name $% \left(1\right) =\left(1\right) +\left(1\right)$
- (bb) "Stock Unit(s)" means the share equivalents credited to a Participant's Stock Account pursuant to Article III, Section 1.
- (cc) "Termination" $\,$ means retirement from the Board or termination of service as a Director for any other reason.

3. SHARES; ADJUSTMENTS IN EVENT OF CHANGES IN CAPITALIZATION

- (a) Shares Authorized for Issuance. There shall be reserved for issuance under the Plan 500,000 shares of Common Stock, subject to adjustment pursuant to subsection (b) below. Such shares shall be authorized but unissued shares of Common Stock.
- (b) Adjustments in Certain Events. In the event of any change in the outstanding Common Stock of the Company by reason of any stock split, stock dividend, recapitalization, merger, consolidation, reorganization, combination, or exchange of shares, split-up, split-off, spin-off, liquidation or other similar change in capitalization, or any distribution to common shareholders other than cash dividends, the number or kind of shares that may be issued under the Plan shall be automatically adjusted so that the proportionate interest of the Directors shall be maintained as before the occurrence of such event. Such adjustment shall be conclusive and binding for all purposes of the Plan.

4. ELIGIBILITY

Any non-employee Director of the Company shall be eligible to participate in the Plan.

5. ADMINISTRATION

Full power and authority to construe, interpret and administer the Plan shall be vested in the Company and the Committee on Directors. Decisions of the Company and the Committee on Directors shall be final, conclusive and binding upon all parties. Day-to-day administration of the Plan shall be the responsibility of Corporate Human Resources. This Department may authorize new or modify existing forms for use under this Plan so long as any such modified or new forms are not inconsistent with the terms of the Plan.

ARTICLE II. COMMON STOCK PROVISION

Each Director may elect to receive all or a portion of his or her Fees in shares of Common Stock by making an Election pursuant to Article III, Section 4. Shares shall be issued to the Director at the end of each quarter beginning in the quarter the Election is effective. The number of shares of Common Stock so issued shall be equal to the amount of Fees which otherwise would have been payable to such Director during the quarter divided by the Fair Market Value. Only whole number of shares of Common Stock will be issued, with any fractional shares to be paid in cash.

ARTICLE III. DEFERRED COMPENSATION

1. PARTICIPANT ACCOUNTS

(a) Upon election to participate in the Plan, there shall be established a Deferral Account to which there shall be credited any Deferred Fees as of each Credit Date. The Deferral Account shall be credited (or debited) on each Accounting Date with income (or loss) based

upon a hypothetical investment in any one or more of the investment options available under the Plan, as prescribed by the Committee on Directors, which may include a Common Stock Fund, as elected by the Participant under the terms of Article III, Section 4.

(b) The Stock Account of a Participant shall be credited on each Accounting Date with Stock Units equal to the number of shares of Common Stock (including fractions of a share) that could have been purchased with the amount of such deferred Fees as to which a stock deferral election has been made at the Fair Market Value on the Accounting Date. As of the date of any dividend distribution date for the Common Stock, the Participant's Stock Account shall be credited with additional Stock Units equal to the number of shares of Common Stock (including fractions of a share) that could have been purchased, at the Fair Market Value on such date, with the amount which would have been paid as dividends on that number of shares (including fractions of a share) of Common Stock which is equal to the number of Stock Units then credited to the Participant's Stock Account.

FINANCIAL HARDSHIP

Upon the written request of a Participant or a Participant's Personal Representative and a finding that continued deferral will result in an unforeseeable financial hardship to the Participant, the Committee on Directors or the Company (each in its sole discretion) may authorize (a) the payment of all or a part of a Participant's Deferral Account in a single installment prior to his or her ceasing to be a Director, or (b) the acceleration of payment of any multiple installments hereof. It is intended that the Committee's determinations as to whether the Participant has suffered an "unforeseeable financial emergency" shall be made consistent with the requirements under Section 457(d) of the Internal Revenue Code. If the Participant requesting such a payment is a member of the Committee on Directors, the Participant shall abstain from the Committee on Directors' determination as to whether the payment shall be made.

ACCELERATED DISTRIBUTION

- (a) Availability of Withdrawal Prior to Termination. The Participant or the Participant's Beneficiary who is receiving installment payments under the Plan may elect, in writing, to withdraw all or a portion of a Participant's Deferral Account at any time prior to the time such Deferral Account otherwise becomes payable under the Plan, provided the conditions specified in subsections (c), (d) and (e) of this Article III, Section 3 are satisfied.
- (b) Acceleration of Periodic Distributions. Upon the written election of the Participant or the Participant's Beneficiary who is receiving installment payments under the Plan, the Participant or Participant's Beneficiary may elect to have all or a portion of the remaining installments distributed in the form of an immediately payable lump sum, provided the conditions specified in subsection (c) and (e) of this Article III, Section 3 are satisfied.
- (c) Forfeiture Penalty. In the event of a withdrawal pursuant to subsection (a) of this Article III, Section 3, or an accelerated distribution pursuant to subsection (b) of this Article III, Section 3, the Participant shall forfeit from such Deferral Account an amount equal to 10% of the amount of the withdrawal or accelerated distribution, as the case may be. The forfeited amount shall be deducted from the Deferral Account prior to giving effect to the requested withdrawal or acceleration. Neither the Participant nor the Participant's Beneficiary shall have any right or claim to the forfeited amount, and the Company shall have no obligation whatsoever to the Participant, the Participant's Beneficiary or any other person with regard to the forfeited amount.
- (d) Minimum Withdrawal. In no event shall the amount withdrawn in accordance with subsection (a) of this Article III, Section 3 be less than 25% of the amount credited to such Participant's Deferral Account immediately prior to the withdrawal.
- (e) Suspension from Deferrals. In the event of a withdrawal pursuant to subsection (a) or (b) of this Article III, Section 3, a Participant who is otherwise eligible to make deferrals of Fees under this Plan shall be prohibited from making such deferrals with respect to the remainder of the current Fiscal Year and the Fiscal Year of the Plan immediately following the Fiscal Year of the Plan during which the withdrawal was made, and any Election previously made by the Participant with respect to deferrals of Fees for such Fiscal Year of the Plan shall be void and of no effect.

4. MANNER OF ELECTION

- (a) General. Any Director wishing to participate in the Plan may elect to do so by delivering to the Secretary of the Company an Election on a form prescribed by Corporate Human Resources designating the manner in which such Deferred Fees are to be invested in accordance with Article III, Section 1 and electing the timing and form of distribution. The timing of the filing of the appropriate form with Corporate Human Resources shall be determined by the Company or the Committee on Directors. An effective election to defer Fees may not be revoked or modified except as otherwise determined by the Company or the Committee on Directors or as stated herein.
- (b) Investment Alternatives Existing Balances. A Participant may elect to change an existing selection as to the investment alternatives in effect with respect to existing deferred Fees (in increments prescribed by the Committee on Directors or the Company) as often, and with such restrictions, as determined by the Committee on Directors or by the Company.

- (c) Change of Beneficiary. A Participant may, at any time, elect to change the designation of a Beneficiary in accordance with Article IV, Section 1 hereof.
- (d) Initial Election. With respect to Directors' Fees payable for all or any portion of a calendar year after such person's initial election to the office of Director of the Company, any such person wishing to participate in the Plan may file a proper Election within 30 days after such election to office. Any such Election shall be effective upon filing or as soon as possible thereafter with respect to such Fees.

DISTRIBUTION

- (a) Deferral Account. In accordance with the Participant's Election and as prescribed by the Committee on Directors, Deferred Fees credited to a Participant's Deferral Account shall be distributed in cash or shares of Common Stock (or a combination of both). Unless otherwise directed by the Committee on Directors, if no Election is made by a Participant as to the distribution or form of payment of his or her Deferral Account, upon Termination such account shall be paid in cash in lump sum. The entire Deferral Account must be paid out within forty years following the date of the Participant's Termination.
- (b) Change of Distribution of Deferral Account. A Participant will be allowed to change the Election as to the applicable payment period for all amounts deferred pursuant to such Election, subject to approval by the Company or the Committee. Such change must be made by the earlier of:
 - (i) the date six months prior to the first day of the month following the Participant's Termination; or
 - (ii) the December 31 immediately $\,$ preceding the first day of the month following the Participant's Termination.

If the Participant making such change is a member of the Committee on Directors, such Participant shall abstain from the Committee on Directors' decision to approve or disapprove such change.

6. PAYMENT COMMENCEMENT DATE

Payments of amounts deferred pursuant to a valid Election shall commence after a Participant's Termination in accordance with his or her Election. If a Participant dies prior to the first deferred payment specified in an Election, payments shall commence to the Participant's Beneficiary on the first payment date so specified.

CHANGE IN CONTROL

Notwithstanding any provision of this Plan to the contrary, in the event of a "Change in Control" (as defined in Section 2(f) of Article I), each Participant in the Plan shall receive an automatic lump sum cash distribution of all amounts accrued in the Participant's Cash and/or Stock Account(s) (including interest at the Prime Rate of Interest through the business day immediately preceding the date of distribution) not later than fifteen (15) days after the date of the "Change in Control." For this purpose, the balance in the Stock Account shall be determined by multiplying the number of Stock Units by the higher of (a) the highest closing price of a share of Common Stock during the period commencing 30 days prior to such Change in Control or (b) if the Change in Control of the Company occurs as a result of a tender or exchange offer or consummation of a corporate transaction, then the highest price paid per share of Common Stock pursuant thereto. Any consideration other than cash forming a part or all of the consideration for Common Stock to be paid pursuant to the applicable transaction shall be valued at the valuation price thereon determined by the Board.

In addition, the Company shall reimburse a Director for the legal fees and expenses incurred if the Director is required to seek to obtain or enforce any right to distribution. In the event that it is determined that such Director is properly entitled to a cash distribution hereunder, such Director shall also be entitled to interest thereon at the Prime Rate of Interest quoted by Citibank, N.A. as its prime commercial lending rate on the subject date from the date such distribution should have been made to and including the date it is made. Notwithstanding any provision of this Plan to the contrary, Article I, Section 2(f) and Section 7 of this Article may not be amended after a "Change in Control" occurs without the written consent of a majority in number of Participants.

ARTICLE IV. MISCELLANEOUS PROVISIONS

BENEFICIARY DESIGNATION

A Director may designate one or more persons (including a trust) to whom or to which payments are to be made if the Director dies before receiving payment of all amounts due hereunder. A designation of Beneficiary will be effective only after the signed Election is filed with the Secretary of the Company while the Director is alive and will cancel all designations of a Beneficiary signed and filed earlier. If the Director fails to designate a Beneficiary as provided above or if all of a Director's Beneficiaries predecease him or her and he or she fails to designate a new Beneficiary, remaining unpaid amounts shall be paid in one lump sum to the estate of such Director. If all Beneficiaries of the Director die before the Director or before complete payment of all amounts due hereunder, the remaining unpaid amounts shall be paid in one lump sum to the estate of the last to die of such Beneficiaries.

2. INALIENABILITY OF BENEFITS

The interests of the Directors and their Beneficiaries under the Plan may not in any way be voluntarily or involuntarily transferred, alienated or assigned, nor be subject to attachment, execution, garnishment or other such equitable or legal process.

GOVERNING LAW

The provisions of this Plan shall be interpreted $\,$ and construed in accordance with the laws of the Commonwealth of Kentucky.

4. AMENDMENTS

The Committee on Directors may amend, alter or terminate this Plan at any time without the prior approval of the Directors; provided, however, that the Committee on Directors may not, without approval by the shareholders:

- (a) materially increase the number of securities that may be issued under the Plan (except as provided in Article I, Section 3),
- (b) materially modify the requirements as to eligibility for participation in the Plan, or $\,$
- (c) otherwise materially increase the benefits accruing to participants under the Plan. $\,$

COMPLIANCE WITH RULE 16b-3

It is the intention of the Company that the Plan comply in all respects with Rule 16b-3 promulgated under Section 16(b) of the Exchange Act and that Plan Participants remain non-employee directors ("Non-Employee Directors") for purposes of administering other employee benefit plans of the Company and having such other plans be exempt from Section 16(b) of the Exchange Act. Therefore, if any Plan provision is found not to be in compliance with Rule 16b-3 or if any Plan provision would disqualify Plan participants from remaining Non-Employee Directors, that provision shall be deemed amended so that the Plan does so comply and the Plan participants remain Non-Employee Directors, to the extent permitted by law and deemed advisable by the Committee on Directors, and in all events the Plan shall be construed in favor of its meeting the requirements of Rule 16b-3.

EFFECTIVE DATE

The Plan was approved by the shareholders of the Company on January 27, 1994, and originally became effective as of November 9, 1993, and has been restated in this document effective January 28, 1998.

NINTH AMENDED AND RESTATED ASHLAND INC.

SUPPLEMENTAL EARLY RETIREMENT PLAN FOR CERTAIN KEY EXECUTIVE EMPLOYEES May 21, 1998

ARTICLE I. PURPOSE AND EFFECTIVE DATE.

- 1.01 The purpose of the Plan is to allow designated senior executive employees to retire prior to their sixty-fifth birthday without an immediate $% \left(1\right) =\left(1\right) \left(1\right) +\left(1\right) \left(1\right) \left(1\right) +\left(1\right) \left(1\right)$ retirement arrangement for a select group of management.
- The Ninth Amended and Restated Ashland Inc. Supplemental Early Retirement Plan for Certain Key Executive Employees is hereby amended effective May 21, 1998. However, the rights and obligations of Employees who were selected by the Board or approved for participation pursuant to the eligibility requirements of the Plan to receive a benefit under the Plan, or who were receiving benefits prior to May 21, 1998, shall be 1.02 who were receiving benefits prior to May 21, 1998 shall be governed by the terms of the Plan in effect at the time of such Employee(s)' Effective Retirement Date(s) unless otherwise determined by the Committee in its sole discretion.

DEFINITIONS. ARTICLE II.

The following terms used herein shall have the following meanings unless the context otherwise requires: 2.01 "Age" - means the age of an Employee as of his or her last birthday. 2.02 "Annual Retirement Income" means the annual income payable under this Plan by Ashland for the lifetime of a Participant commencing on such Participant's Effective Retirement Date and ending on his or her date of death, subject to the provisions of

- "Ashland" means Ashland Inc. and its present or future 2.03 subsidiary corporations.
- 2.04 "Board" - means the Board of Directors of Ashland and their
- "Change in Control" shall be deemed to occur (1) upon the approval of the shareholders of Ashland (or if such approval is not required, the approval of the Board) of (A) any consolidation 2.05 or merger of Ashland in which Ashland is not the continuing or surviving corporation or pursuant to which shares of Ashland common stock would be converted into cash, securities or other property other than a merger in which the holders of Ashland common stock immediately prior to the merger will have the same proportionate ownership of common stock of the surviving corporation immediately after the merger, (B) any sale, lease, exchange, or other transfer (in one transaction or a series of related transactions) of all or substantially all the assets of Ashland, or (C) adoption of any plan or proposal for the liquidation or dissolution of Ashland, (2) when any "person" (as defined in Section 3(a)(9) or 13(d) of the Securities Exchange Act of 1934), other than Ashland or any subsidiary or employee benefit or 1934), other than Ashland or any subsidiary or employee benefit plan or trust maintained by Ashland or any of its subsidiaries, shall become the "beneficial owner" (as defined in Rule 13d-3 under the Securities Exchange Act of 1934), directly or indirectly, of more than 15% of the Ashland common stock outstanding at the time, without the approval of the Board, or (3) if at any time during a period of two consecutive years, individuals who at the beginning of such period constituted the Board shall cease for any reason to constitute at least a majority thereof, unless the election or nomination for election by Ashland's shareholders of each new director during such two-year period was approved by a vote of at least two-thirds of the directors then still in office who were directors at the beginning of such two-year period.
- "Committee" means the Personnel and Compensation Committee of 2.06
- the Board and their designees.
 "Effective Retirement Date" means the date upon which a 2.07 Participant retires under this Plan which shall be the first day of the month following the Participant's 62nd birthday or, at Ashland's discretion or as otherwise provided in Article V or VI, any earlier age. Upon approval as provided in Sections 3.01 and 3.02, the "Effective Retirement Date" of a Participant may occur after the Employee reaches age 62.
- 2.08 "Employee" - means an executive employee of Ashland who (i) is at least 55 years of age or such earlier age pursuant to Section 5.06(b); and (ii) is deemed on the Effective Retirement Date to be
- a Level V or above employee under the Incentive Compensation Plan. "Employment Contracts" - means those contractual agreements, in effect from time to time, which are approved by the Board and which provide an Employee with a specified period of employment 2.09 and other benefits.
- "Final Average Bonus" means the Participant's average bonus paid 2.10 under the Incentive Compensation Plan (including amounts that may have been deferred) during the highest thirty-six (36) months out of the final sixty-month (60) period. For these purposes, the "bonus paid" for a particular month within a particular fiscal year under such plan shall be equal to the amount of such bonus actually paid (regardless of the date paid, but excluding any adjustment for the deferral of such payment) to such Participant on account of such fiscal year divided by the number of months contained in such fiscal year which were used in determining the amount of such bonus actually paid to such Participant.
- amount of such bonus actually paid to such raitivepoint.
 "Final Average Compensation" means the average total compensation paid during the highest thirty-six months (36) out of the such that work (60) period. For these purposes, "total 2.11 the final sixty-month (60) period. For these purposes, "total compensation paid" is the sum of the "compensation paid" and the "bonus paid" during a particular month. "Compensation paid" shall be the base rate of compensation for such Participant in effect on the first day of such calendar month. "Bonus paid" shall have the same meaning as set forth in Section 2.10.

- "Incentive Compensation Plan" means the Ashland Inc. Incentive 2.12 Compensation Plan or the Ashland Inc. Incentive Compensation Plan for Key Executives, as applicable.
- 2.13 "Participant" - means an Employee who has been approved for participation in the Plan pursuant to Article III or Section 5.06.
- 2.14 - means the Ninth Amended and Restated Ashland Inc. Supplemental Early Retirement Plan for Certain Key Executive
- Employees as set forth herein.
 "Service" means the number of years and fractional years of employment by Ashland of an Employee, measured from the first day of the month coincident with or next succeeding his or her initial 2.15 date of employment up to and including such Employee's Effective Retirement Date. For purposes of this Section 2.15, Service shall include an Employee's employment with a subsidiary or an affiliate of Ashland determined in accordance with rules from time to time adopted or approved by the Board.

ARTICLE III.

- Eligibility for benefits shall be determined as follows:
- 3.01 Except as otherwise provided in Section 3.03, an Employee who on the Effective Retirement Date is deemed to be a Level I or II Participant under the Incentive Compensation Plan shall require Board approval to participate in this Plan.
- An Employee who on the Effective Retirement Date is deemed to be a 3.02 Level III, IV, or V Participant under the Incentive Compensation Plan shall require the approval of either (i) Ashland's Chief Executive Officer or (ii) Ashland's Administrative Vice President, Human Resources and either the Executive Vice President or the Chief Financial Officer to participate in this Plan.
- 3.03 Subject to the provisions of Article VI, in the event of a "Change in Control" (as defined in Section 2.05), an Employee who is deemed to be a Level I or II Participant under the Incentive Compensation Plan shall automatically be deemed to be approved by the Board for participation under this Plan.
- The Board or Chief Executive Officer or Chief Operating Officer, 3.04 as applicable, may approve such key executives for participation in the Plan as they deem to be appropriate, all in its sole discretion.
- Ashland reserves the right to terminate any Participant for "Cause" prior to his or her Effective Retirement Date, with a resulting forfeiture of the payment of benefits under the Plan. 3.05 Ashland also reserves the right to terminate any Participant's participation in the Plan for "Cause" subsequent to his or her Effective Retirement Date. For purposes of this Section 3.05, "Cause" shall mean the willful and continuous failure of a Participant to substantially perform his or her duties to Ashland (other than any such failure resulting from incapacity due to physical or mental illness), or the willful engaging by a Participant in gross misconduct materially and demonstrably injurious to Ashland, each to be determined by Ashland in its sole discretion.

INTERACTION WITH EMPLOYMENT CONTRACTS. ARTICLE TV.

- Notwithstanding any provision of this Plan to the contrary, 4.01 Employee who has entered into an Employment Contract with Ashland and who is either terminated without "Cause" prior to a "change in control of Ashland" or is terminated without "Cause" or resigns for "Good Reason" following a "change in control of Ashland" (each quoted term as defined in the applicable employment agreement) shall be entitled to receive the benefits as provided pursuant to this Plan. Benefits payable hereunder in such a situation shall be calculated in accordance with the payment option selected by the Employee at such time.
- 4.02 Benefits Prior to "Change in Control."
 - If the Employee's termination is without "Cause" prior to a "change in control of Ashland," benefits payable hereunder shall not include those benefits which would have been payable to the Employee during the first two (2) years of his or her retirement under the Plan. The benefits payable hereunder shall commence no earlier than as of the first day of the calendar month coincident with or next following the second anniversary following the Employee's "Date of Termination" (as defined in the applicable employment agreement); however, if the Employee elects to receive such benefits in a lump sum as provided in Section 5.04(b)(1), such benefits shall commence and be payable as therein specified.
- Benefits Subsequent to a "Change in Control."

 If the Employee's termination is without "Cause" or he or she 4.03 resigns for "Good Reason" following a "change in control of Ashland," benefits payable hereunder shall not include those benefits which would have been payable to the Employee during the first three (3) years of his or her retirement under the Plan. The benefits payable hereunder shall commence no earlier than as of the first day of the calendar month coincident with or next following the third anniversary following the Employee's "Date of Termination" (as defined in the applicable employment agreement); however, if the Employee elects to receive such benefits in a lump sum as provided in Section 5.04(b)(1), such benefits shall commence and be payable as therein specified.
- commence and be payable as therein specified. If a Participant accepts, during a period of five (5) years subsequent to his or her Effective Retirement Date, any consulting or employment activity which is in direct conflict with the business of Ashland at such time (such determination regarding conflicting activity to be made in the sole discretion of the Board), he or she shall not be entitled to the receipt of any further payments of Annual Retirement Income under this Plan; provided, however, he or she shall not be restricted in any manner with respect to any other non-conflicting activity in which he or she is engaged. If a Participant wishes to accept employment or consulting activity which may be prohibited under this Section 4.04, such Participant may submit to Ashland written notice (Attention: Administrative Vice President, Human Resources) of his 4.04

or her wish to accept such employment or consulting activity. within ten (10) business days following receipt of such notice Ashland does not notify the Participant in writing of Ashland's objection to his or her accepting such employment or consulting activity, then such Participant shall be free to accept such employment or consulting activity for the period of time and upon the basis set forth in his or her written request.

ARTICLE V. ANNUAL RETIREMENT INCOME AND OTHER BENEFITS. 5.01

IEVELS I AND II.

The Annual Retirement Income of a Participant who is deemed to be a Level I or II Participant under the Incentive Compensation Plan shall be equal to:

Pre-Age 62 Benefit

A Participant who retires under this Plan shall receive an Annual Retirement Income from and after the first day of the calendar month next following his or her Effective Retirement Date until the end of the month in which he or she attains age 62 equal to the greater of (1) the amounts provided in the following schedule or (2) 50% of Final Average Compensation. Notwithstanding the previous sentence, in the event such Participant retired with less than 20 years of Service, such Annual Retirement Income shall be multiplied by a fraction (A) the numerator of which is such Participant's years of and fractional years of Service, and (B) the denominator of which is twenty

| Retir | emen | % of Compensatio | |
|-------|------|---|-----|
| 1st | - | Year After Effective Retirement Date | 75% |
| 2nd | - | II | 70% |
| 3rd | - | II . | 65% |
| 4th | - | п | 60% |
| 5th | - | II . | 55% |
| 6th | - | Year and thereafter | 50% |
| | | to Age 62 | |

For purposes of this Section 5.01(a), "% of Compensation" shall mean the annualized average of the Participant's base monthly compensation rates (excluding incentive awards, bonuses, and any other form of extraordinary compensation) in effect with respect to Ashland on the first day of the thirty-six (36) consecutive calendar months which will give the highest average out of the one-hundred twenty (120) consecutive calendar month period ending on the Participant's Effective Retirement Date.

- (b) Age 62 Benefit and Thereafter From and after the first day of the calendar month next following his or her Effective Retirement Date, or the attainment of age 62, whichever is later, the Participant's Annual Retirement Income shall be equal to 50% of Final Average Compensation; provided, however, that in the event such Participant retired with less than 20 years of Service, such Annual Retirement Income shall be 50% of Final Average Compensation multiplied by a fraction (A) the numerator of which is such Participant's years of and fractional years of Service, and (B) the
- (c) Benefit Reduction The amount of benefit provided in paragraphs (a) and (b)

denominator of which is twenty (20).

of this Section 5.01 shall be reduced by the sum of the following:

- Participant's benefit under the Ashland Inc. (1) and Affiliates Pension Plan (the "Pension Plan") (assuming 50% of such Participant's account under the Ashland Inc. Leveraged Employee Stock Ownership Plan were transferred to the Pension Plan, as allowed under the terms of each of the said plans), determined on the basis of a single life annuity form of benefit;
- (2) the Participant's benefit under any other defined benefit pension plan qualified under Section 401(a) of the Internal Revenue Code of 1986, as amended which is maintained by Ashland, determined on the basis of a single life annuity form of benefit (said plans referred to in sub-paragraphs (1) and (2) of this paragraph (c) are hereinafter referred to jointly and severally as the "Affected
- (3) the Participant's benefit under the Ashland Inc. Nonqualified Excess Benefit Pension Plan, determined on the basis of a single life annuity
- form of benefit; and the Participant's benefit under the Ashland Inc. ERISA Forfeiture Plan attributable to amounts which were forfeited under the Ashland Inc. (4) Employee Ownership Plan, multiplied by 50%, and determined on the basis of a single life annuity benefit.

 In the event a Participant's benefit hereunder is paid as

a lump sum pursuant to an election under Section 5.04(b)(1), the reduction to such benefit shall be calculated based upon the lump sum actuarial present value of the benefits referred to in sub-paragraphs (1)-(4) of this paragraph (c) to which the Participant would be entitled at age 62, regardless of the date

actually commence. In the Participant's benefit hereunder is paid in any form of periodic payments, the reduction shall apply from and after the date the Participant actually commences payments under the plans referred to under sub-paragraphs (1), (2) or (3) of this paragraph (c).

5.02

LEVELS III, IV AND V.
The Annual Retirement Income of a Participant who on his or her Effective Retirement Date was deemed to be a Level III, IV, or V Participant under the Incentive Compensation Plan shall, from and after the first day of the calendar month next following his or her 62nd birthday, be equal to 50% of Participant's Final Average Bonus; provided, however, that in the event such Participant retired with less than 20 years of Service, such Annual Retirement Income after age 62 shall be 50% of Final Average Bonus multiplied by a fraction (A) the numerator of which is such Participant's years of and fractional years of Service, and (B) the denominator of which is twenty (20). Although a Participant may elect to commence benefits under this Plan upon his or her Effective Retirement Date, there shall be an actuarial adjustment Retirement Date, there shall be an actuarial adjustment (consistent with that applied under Ashland's qualified pension plan, as from time to time in effect) for Participants receiving benefits under this Section 5.02 whose Effective Retirement Date is prior to age 62.

Annual Retirement Income benefits payable under Sections 5.01 and 5.02 for a period of less than 12 months due to a Participant's attainment of age 62 or death will be payable on a pro-rata basis, with months taken as a fraction of a year.

5.04

5.03

(a) Election.

A Participant shall, subject to Sections 5.05 and 5.06, elect the form in which such benefit shall be paid from among those identified in this Section 5.04 and such election shall be made at the time and in the manner prescribed by Ashland, from time to time, provided that the election is made before the Participant's Effective Retirement Date. Such election, including the designation of any contingent annuitant or alternate recipient under Sections 5.04(b)(4) or (5), shall be irrevocable except as otherwise set forth herein. Notwithstanding anything in the foregoing to the contrary, any Participant approved for participation in the Plan pursuant to Sections 3.01, 3.02 and 3.04 who makes an election under Section 5.04(b)(2) shall make such election by the later

- the 60th day following such Participant's approval to participate in this Plan; or (1)
- (2) the earlier of -
 - (A) the date six months prior to Participant's Effective Retirement Date; or
 - (B) the December 31 immediately preceding the Participant's Effective Retirement Date.

Such deferral election shall be made in the manner prescribed by Ashland, from time to time, and shall be irrevocable as of the applicable time identified under Sections 5.04(a)(1) or (2).

Until the time at which an election becomes irrevocable, a Participant shall be able to change it.

Optional Forms of Payment.
(1) Lump Sum Option. (b)

- Lump Sum Option. A Participant may elect to receive the benefit under Article V as a lump sum distribution, subject to the discretion of Committee as described below. A lump sum benefit payable under the Plan to a Participant shall be computed on the basis of the actuarially equivalent present value of such Participant's benefit under Article V based upon such actuarial assumptions as determined by the Committee. Such lump sum shall be payable within thirty (30) days following the later of the Participant's Effective Retirement Date, or at such later date as Ashland or its delegate may determine, in its sole discretion. The Committee shall have the sole discretion to provide a lump sum benefit option to a class of retirees for a given calendar year. The decision as to whether to provide a lump sum benefit option shall generally be made by the Committee at the last Committee meeting prior thereto. The option shall be made available to a Participant contingent upon various considerations, including, but not limited to, the following: The tax status of Ashland, including without limitation, the corporate and individual tax rate then applicable and whether or not Ashland has or projects a net operating loss; the current and projected liquidity of Ashland, including cash flow, capital expenditures and dividends; Ashland 's borrowing requirements and dabt debt leverage; applicable book charges; organizational issues, including succession issues; security of the retirement payment(s) with respect to the retiree; and the Participant's preference.
- Lump Sum Deferral Option. A Participant who is (2) eligible to receive a lump sum distribution under 5.04(b)(1) shall be able to elect to defer

all or a portion of the receipt of the elected lump sum (in increments of such percentage or such amount as may be prescribed by Ashland or its delegatee, from time to time), by having the obligation to distribute such amount transferred to the Ashland Inc. Deferred Compensation Plan to be held thereunder in a notional account and paid pursuant to the applicable provisions of such Plan, as they may be amended from time to time; provided, however, that the election to defer such distribution shall be made at the time and in the manner prescribed in Section 5.04(a)(1) and (2).

- (3) Single Life Annuity. A Participant may elect to have such benefit paid in the form of equal monthly payments for and during such Participant's life, with such payments ending at such Participant's death. Payments under this option shall be actuarially equivalent to the benefit provided under Section 5.01 or 5.02, whichever is applicable, determined on the basis of the applicable actuarial assumptions and other relevant provisions used for the same in the Pension Plan.
- (4) Joint and Survivor Income Option. A Participant may elect to receive an actuarially reduced benefit payable monthly during the Participant's lifetime with payments to continue after his or her death to the person he designates (hereinafter called "contingent annuitant"), in an amount equal to (1) 100% of such actuarially reduced benefit, (2) 66 2/3% of such actuarially reduced benefit, or (3) 50% of such actuarially reduced benefit. Benefit payments under this option shall terminate with the monthly payment for the month in which occurred the date of death of the later to die of the Participant and his or her contingent annuitant. The following additional limitations and conditions apply to this option: (A) The contingent annuitant shall be designated by the Participant in writing in

such form and at such time as Ashland may from time to time prescribe. Before the Participant's Effective Retirement Date, the Participant may change the contingent annuitant elected.

- (B) In the event of the death of the contingent annuitant prior to the date as of which the election is irrevocable, the Participant's selection of this option shall be void and the Participant may change the contingent annuitant or change the option elected, subject to the applicable limitations and conditions applied to elections for the options described under 5.04(a)(1) and (2).

 (C) Actuarial equivalence under this
- (C) Actuarial equivalence under this sub-paragraph (4) shall be determined on the basis of the applicable actuarial assumptions and other relevant provisions used for the same in the Pension Plan.
- (5) Period Certain Income Option. A Participant may elect to receive an actuarially reduced benefit payable monthly during his or her lifetime and terminating with the monthly payment for the month in which his or her death occurs, with the provision that not less than a total of 120 monthly payments shall be made in any event to him or her and/or the person designated by him or her to receive payments under this sub-paragraph (5) in the event of his or her death (hereinafter called "alternate recipient"). If a Participant and his or her alternate recipient die after the Effective Retirement Date, but before the total specified monthly payments have been made to such Participant and/or his or her alternate recipient, the commuted value of the remaining unpaid payments shall be paid in a lump sum to the estate of the later to die of the Participant or his or her alternate recipient. The following additional limitations and conditions shall apply to this option: (A) The alternate recipient shall be designated in writing by the Participant in

such form and at such time as Ashland may from time to time prescribe. The designation of an alternate recipient under this sub-paragraph (5) is irrevocable after the Effective Retirement Date, provided, however, a Participant may designate a new alternate recipient if the one first designated dies before the Participant and after the Effective Retirement Date.

(B) In the event of the death of the

alternate recipient prior to the date as of which the election is irrevocable, the Participant's selection of this option shall be void and the Participant may change the alternate recipient or change the option elected, subject to the applicable limitations and conditions applied to elections for the options described under 5.04(a)(1) and (2).

Actuarial equivalence under this sub-paragraph (5) shall

- (C) Actuarial equivalence under this sub-paragraph (5) shall be determined on the basis of the applicable actuarial assumptions and other relevant provisions used for the same in the Pension Plan.
- 5.05. Payment of Small Amounts.

Unless such Participant elects to receive his or her benefit in a lump sum as provided in Section 5.04, in the event a monthly benefit under this Plan, payable to either a Participant or to his or her contingent annuitant, alternate recipient or surviving spouse, is too small (in the sole judgment of Ashland) to be paid monthly, such benefit may be paid quarterly, semi-annually, or annually, as determined by Ashland to be administratively convenient.

5.06. Surviving Benefits.

(a) Except as otherwise provided in Section 5.04 of this Plan, in the event that a Participant receiving Annual Retirement Income

benefits shall die after his or her Effective Retirement Date, no additional benefits shall be payable by Ashland under this Plan to such deceased Participant's beneficiaries, survivors, or estate.

(b) If an Employee dies while in active service with ${\sf Ashland}$

(1) prior to approval for participation in the Plan and said Employee is a Level I or II participant under the Incentive Compensation Plan; or

(2) after approval for participation in the Plan but prior to making an election pursuant to Section 5.04(a) and said Employee is a Level I -V participant under the Incentive Compensation Plan; then such Employee shall be deemed:

- (i) to be a Participant under the Plan in the case of Section 5.06 (b)(1); (ii) to have commenced participation one (1) day prior to the date of the Employee's death; and (iii) to have elected to receive his or her benefits in the form of the 100% Joint & Survivor retirement income option and to have designated his or her spouse as the beneficiary thereunder.
- (c) In the event an Employee is approved for participation under the Plan and dies after having made an election under Section 5.04(a) but prior to his or her Effective Retirement Date, then such Employee shall be deemed to have commenced participation one (1) day prior to the date of the Employee's death and payment shall be made under this Plan in accordance with the Employee's election.

 After a Participant's Effective Retirement Date have shall
- 5.07 After a Participant's Effective Retirement Date, he or she shall continue to participate in Ashland's Group Life Insurance, Medical and Dental programs in the same manner and under the same terms and conditions as provided for retirees as a class under the provisions of such programs, as from time to time in effect. Except as otherwise expressly provided in this Plan, a Participant's active participation in all employee benefit programs maintained by Ashland derived from his or her employment status with Ashland shall be discontinued.

ARTICLE VI. CHANGE IN CONTROL.

Notwithstanding any provision of this Plan to the contrary, in the event of a Change in Control, an Employee who is deemed to be a Level I or II Participant under Ashland's Incentive Compensation Plan, shall automatically be deemed to be approved by the Board for participation under this Plan and may, in his or her sole discretion, elect to retire prior to the date the Employee reaches age 62. In addition, Ashland shall reimburse an Employee for legal fees and expenses incurred by such Employee if he or she is required to, and is successful in, seeking to obtain or enforce any right to payment pursuant to the Plan. In the event that it shall be determined that such Employee is properly entitled to the payment of benefits hereunder, such Employee shall also be entitled to interest thereon payable in an amount equivalent to the prime rate of interest (quoted by Citibank, N.A. as its prime commercial lending rate on the latest date practicable prior to the date of the actual commencement of payments) from the date such payment(s) should have been made to and including the date it is made. Notwithstanding any provision of this Plan to the contrary, the provisions of this Plan may not be amended after a Change in Control occurs without the written consent of a majority of the Board who were directors prior to the Change in Control.

ARTICLE VII. MISCELLANEOUS.

7.01 The obligations of Ashland hereunder constitute merely the promise of Ashland to make the payments provided for in this Plan. No employee, his or her spouse or the estate of either of them shall have, by reason of this Plan, any right, title or interest of any kind in or to any property of Ashland. To the extent any Participant has a right to receive payments from Ashland under this Plan, such right shall be no greater than the right of any unsecured general creditor of Ashland.

7.02 Full power and authority to construe, interpret and administer

this Plan shall be vested in the Board or its delegate. Decisions of the Board or its delegate shall be final, conclusive and binding upon all parties.

- This Plan shall be binding upon Ashland and any successors to the business of Ashland and shall inure to the benefit of the Participants and their beneficiaries, if applicable. Except as otherwise provided in Article VI, the Board or its delegate may, 7.03 otherwise provided in Article VI, the Board or its delegate may, at any time, amend this Plan, retroactively or otherwise, but no such amendment may adversely affect the rights of any Participant who has been approved for participation in the Plan except to the extent that such action is required by law.

 Except as otherwise provided in Section 5.04, no right or interest of the Participants under this Plan shall be subject to voluntary or involuntary alienation, assignment or transfer of any kind. This Plan shall be governed for all purposes by the laws of the Commonwealth of Kentucky.
- 7.04
- 7.05

as adopted on September 19, 1996

WHEREAS, the Employee Retirement Income Security Act of 1974 ("ERISA") establishes maximum limitations on benefits and contributions for retirement plans which meet the requirements of Section 401(a) of the Internal Revenue Code of 1986, as amended ("Code");

WHEREAS, Ashland Inc. ("Ashland" or the "Company") maintains certain pension plans which are subject to the aforesaid limitations on

benefits and contributions;

WHEREAS, Ashland adopted the Ashland Oil, Inc. Nonqualified Pension Plan as of September 24, 1975 (which is now called the Ashland Inc. Nonqualified Excess Benefit Pension Plan, otherwise referred to as the "Plan"), for the purpose of providing benefits for certain employees in excess of the aforesaid limitations;

WHEREAS, the Plan was amended and completely restated as of July 1977; WHEREAS, the Plan was amended and completely restated as of October 1, 1982; WHEREAS, the Plan was amended and completely restated as of November 3, 1988; WHEREAS, Ashland has retained the authority to make additional amendments to or terminate the Plan;

WHEREAS, Ashland desires to further amend and restate the Plan and, as so amended, to continue the Plan in full force and effect;

NOW, THEREFORE, effective September 19, 1996, Ashland does hereby further amend and restate the Plan in accordance with the following terms and conditions:

- Designation and Purpose of Plan. The Plan is designated the "Ashland Inc. Nonqualified Excess Benefit Pension Plan" ("Plan"). The purpose of the Plan is to provide benefits for certain employees in excess of the limitations on contributions, benefits, and compensation imposed by Sections 415 and 401(a)(17) of the Code (including successor provisions thereto) on the plans to which those Sections apply. The portion of the Plan providing benefits in excess of the Section 415 limits is an "excess benefit plan" as that term is defined in Section 3(36) of ERISA. It is intended that the portion, if any, of the Plan which is not an excess benefit plan shall be maintained primarily for a select group of management or highly compensated employees.
- 2. Eligibility. Subject to Section 11, the Plan shall apply to those employees - (i) who have retired as an early, normal, or deferred normal retiree under the provisions of the Ashland Inc. and Affiliates Pension Plan ("Ashland Pension Plan"), as it may be amended, from time to time, or under provisions of any other retirement plan, as such other plan may be amended from time to time, which, from time to time, is specifically designated by Ashland for purposes of eligibility and benefits under the designated by Ashland for purposes of eligibility and benefits under the Plan (all such plans are hereinafter referred to jointly and severally as Plan (all such plans are nerelnatter referred to juintly and severally as "Affected Plans"); and (ii) who have been approved for participation in this Plan by Ashland or its delegate, and such approval may, in the discretion of Ashland, be made (A) before an employee's actual early, normal or deferred retirement; or (B) posthumously in the event of a benefit potentially available under Section 6 of the Plan. Notwithstanding anything to the contrary contained herein, any employee who would be entitled to participate in this Plan, but who is not a member of a select group of management or a highly compensated employee, shall be entitled to a benefit amount payable under the Plan based solely on the limitations on benefits imposed under Section 415 of the Code.
 - Benefit Amount. 3.
- (i) Computation. At any particular time, the benefit payable to a retiree eligible to participate in this Plan pursuant to the provisions in Section 2 shall be computed by subtracting from (A) the sum of (B) and (C) where
 (A) shall be the single life annuity that would be

payable at age 62 to such retiree under the Affected Plans
(1) with the benefit so payable

thereunder calculated by disregarding any salary deferrals that may have been made by such retiree under the Ashland Inc. Deferred Compensation Plan and thereby restoring any salary that may have been so deferred to such retiree's compensation for purposes of the Affected Plans, and

(2) prior to any reductions made because of the

limits imposed by Sections 415 and 401(a)(17) of the Code;

provided that the single life annuity that would be so payable under the Ashland Pension Plan shall be computed without applying any offset attributable to the Ashland Inc. Leveraged Employee Stock Ownership Plan ("LESOP"), and such single life annuity shall be actuarially adjusted to be equivalent to a single life annuity payable at the particular time applicable based upon the applicable actuarial assumptions and other relevant provisions used for the same in the Affected Plans; [as amended by Amendment No. 1 adopted 9/18/97]

(B) shall be the single life annuity that would be payable at age 62 to such retiree under the Affected Plans after reducing the amount so payable for the limits imposed by Sections 415 and 401(a)(17) of the Code, provided that such single life annuity that would be so payable under the Ashland Pension Plan shall be computed after first applying the offset attributable to the Offset Account (as that term is defined under the LESOP) in the LESOP, and each such single life annuity shall be actuarially adjusted to be equivalent to a single life annuity payable at the particular time applicable based upon the applicable actuarial assumptions and other relevant provisions used for the same in the Affected Plans; and

(C) shall be the single life annuity that would be actuarially equivalent to such retiree's nonforfeitable portion of the Offset Account under the LESOP as of the valuation date thereunder coincident with or next preceding such retiree's termination of employment using the actuarial assumptions prescribed for this purpose in the Ashland Pension Plan. (ii) Commencement. Subject to Section 6, the benefit computed under paragraph (i) of this Section 3 shall commence or otherwise be paid or transferred pursuant to the provisions in Sections 4 or 5, effective as of the date as of which payments to such retiree commence under the

Affected Plans.

Payment Options.

(i) Election. A retiree eligible under Section 2 for the benefit under Section 3 shall, subject to Sections 5 and 6, elect the form in which such benefit shall be paid from among those identified in this Section 4 and such election shall be made at the time and in the manner prescribed by Ashland, from time to time, provided that the election is made before the first day of the month following such retiree's termination from employment. Such election, including the designation of any contingent annuitant or alternate recipient under sub-paragraphs (D) or (E) of paragraph (ii) of this Section 4, shall be irrevocable except as otherwise set forth herein. Notwithstanding anything in the foregoing to the contrary, any retiree who makes an election under sub-paragraph (B) of paragraph (ii) of this Section 4 shall make such election by the later of

(A) the 60th day following such retiree's approval to participate in this Plan as provided under Section 2; or

by the earlier of -(B)

(1) the date six months prior to the first day of

the month following such retiree's termination from employment; or

(2) the December 31 immediately preceding the first day of the month following such retiree's termination from employment.

Such election under sub-paragraph (B) of paragraph (ii) of this Section 4 shall be made in the manner prescribed by Ashland, from time to time, and shall be irrevocable as of the applicable time identified under (A) or (B) of this paragraph (i) of Section 4. Until the time at which such election becomes irrevocable, an eligible retiree shall be able to change it. (ii) Optional Forms of Payment.

(A) Lump Sum Option. Notwithstanding any provisions of Section 3 to the contrary, a retiree in an eligible class may elect to receive all of the benefit under Section 3 as a lump sum distribution, subject to the discretion of the Committee as described below. A lump sum benefit payable under the Plan to a retiree in an eligible class shall be computed on the basis of the actuarially equivalent present value of such retiree's benefit under Section 3 of the Plan payable at the particular time applicable based upon such actuarial assumptions (including the interest rate) as determined from time to time by the Committee, described below. ^ [as amended by Amendment No. 2 adopted 5/20/98] The Personnel and Compensation Committee of Ashland's Board of Directors shall have the sole discretion to provide a lump sum benefit option to a class of retirees for a given calendar year. The decision as to whether to provide a lump sum benefit option shall generally be made by the Committee at the last committee meeting prior thereto. The option shall be made available to a retiree contingent upon various considerations, including, but not limited to, the following:

The tax status of the Company, including without limitation, the corporate and individual tax rate then applicable and whether or not the Company has or projects a net operating loss; the current and projected liquidity of the Company, including cash flow, capital expenditures and dividends; Company borrowing requirements and debt leverage; applicable book charges; organizational issues, including succession issues; security of the retirement payment(s) with respect to the retiree; and the retiree's preference.

(B) Lump Sum Deferral Option. A retiree who is eligible to receive a lump sum distribution under sub-paragraph (A) of this paragraph (ii) of Section 4 and who was part of a select group of management or a highly compensated employee, shall be able to elect to defer all or a portion of the receipt of the elected lump sum (in increments of such percentage or such amount as may be prescribed by increments of such percentage or such amount as may be prescribed by Ashland or its delegatee, from time to time), [as amended by Amendment No. 1 adopted 9/18/97] by having the obligation to distribute such amount transferred to the Ashland Inc. Deferred Compensation Plan to be held thereunder in a notional account and paid pursuant to the applicable provisions of such Plan, as they may be amended from time to time; provided, however, that the election to defer such distribution shall be made at the time and in the manner prescribed in paragraph (i) of this Section 4. [The prior last sentence was deleted by Amendment No. 1 adopted 9/18/97]

(C) Single Life Annuity. A retiree eligible under Section 2 for the benefit under Section 3 may elect to have such benefit paid in the form of equal monthly payments for and during such retiree's life, with such payments ending at such retiree's death. Before such election becomes irrevocable as provided under paragraph (i) of Section 4, the retiree may change the option elected, subject to the applicable limitations and conditions applied to elections for the options described under sub-paragraphs (A) and (B) of this paragraph (ii) of Section 4. Payments under this option shall be actuarially equivalent to the benefit provided under Section 3, determined on the basis of the applicable actuarial assumptions and other relevant provisions used for the same in the Ashland Pension Plan.

(D) Joint and Survivor Income Option. A retiree eligible under Section 2 for the benefit under Section 3 may elect to receive an actuarially reduced benefit payable monthly during the retiree's lifetime with payments to continue after his death to the person he designates (hereinafter called "contingent annuitant"), in an amount equal to (1) 100% of such actuarially reduced benefit, (2) 66 2/3% of such actuarially reduced benefit, or (3) 50% of such actuarially reduced benefit. Benefit payments under this option shall terminate with the monthly payment for the month in which occurred the date of death of the later to die of the retiree and his contingent annuitant. The following additional limitations

and conditions apply to this option:

(a) The contingent annuitant shall be designated by the retiree in writing in such form and at such time as Ashland may from time to time prescribe.

(b) In the event the contingent annuitant dies prior to the date the election of this optional form of benefit becomes irrevocable as provided under paragraph (i) of Section 4, the retiree's selection of this option shall be void. Before the date the election of this optional form of benefit becomes irrevocable as provided under paragraph (i) of Section 4, the retiree may change the contingent annuitant or change the option elected, subject to the applicable limitations and conditions applied to elections for the options described under sub-paragraphs (A) and (B) of this paragraph (ii) of Section 4.

(c) In the event of the death of the retiree prior to the date the election is irrevocable as provided under paragraph (i) of Section 4, such retiree shall be deemed to have terminated employment on the day before his death (for reasons other than death) and survived until the day after the date as of which the benefit he elected under this sub-paragraph (D) would have commenced.

(d) Actuarial equivalence under this sub-paragraph (D) shall be determined on the basis of the applicable actuarial assumptions and other relevant provisions used for the same in the Ashland Pension Plan.

(E) Period Certain Income Option. A retiree eligible under Section 2 for the benefit under Section 3 may elect to receive an actuarially reduced benefit payable monthly during his lifetime and terminating with the monthly payment for the month in which his death occurs, with the provision that not less than a total of 120 monthly payments shall be made in any event to him and/or the person designated by him to receive payments under this sub-paragraph (E) in the event of his death (hereinafter called "alternate recipient"). Such alternate recipient shall be designated in writing by the retiree in such form and at such time as Ashland may from time to time prescribe. If a retiree and his alternate recipient die after the date as of which payments have commenced but before the total specified monthly payments have been made to such retiree and/or his alternate recipient, the commuted value of the remaining unpaid payments shall be paid in a lump sum to the estate of the later to die of the retiree or his alternate recipient. The following additional limitations and conditions shall apply to this option:

(a) A retiree may designate a new alternate recipient if the one first designated dies before the retiree and after the date the election of this optional form of benefit became irrevocable under paragraph (i) of Section 4. In the event the alternate recipient dies prior to the date the election becomes irrevocable as provided under paragraph (i) of Section 4, the retiree's selection of this option shall be void. Before the date the election of this optional form of benefit becomes irrevocable as provided under paragraph (i) of Section 4, the retiree may change the alternate recipient or change the option elected, subject to the applicable limitations and conditions applied to elections for the options described under sub-paragraphs (A) and (B) of this paragraph (ii) of Section 4.

(b) In the event of the death of the retiree prior to the date the election is irrevocable as provided under paragraph (i) of Section 4, such retiree shall be deemed to have terminated employment on the day before his death (for reasons other than death) and survived until the day after the date as of which the benefit he elected under this sub-paragraph (E) would have commenced.

(c) Actuarial equivalence under this sub-paragraph (E) shall be determined on the basis of the applicable actuarial assumptions and other relevant provisions used for the same in the Ashland Pension Plan.

(F) Death Before Payment. Subject to Section 6, in the event a retiree eligible under Section 2 for the benefit under Section 3 dies after having made an election of an optional form of payment under this paragraph (ii) of Section 4 before the date such election became irrevocable as provided under paragraph (i) of Section 4, such retiree shall be deemed to have terminated employment on the day before his death (for reasons other than death) and survived until the day after the date as of which the optional form of payment he elected would have commenced and payment shall then be made under the Plan in accordance with such retiree's election.

5. Payment of Small Amounts. Unless such retiree elects to receive his or her benefit in a lump sum as provided in Section 4, in the event a monthly benefit under this Plan, payable to either a retiree or to his contingent annuitant, alternate recipient or surviving spouse, is too small (in the sole judgment of Ashland) to be paid monthly, such benefit may be paid quarterly, semi-annually, or annually, as determined by Ashland to be administratively convenient.

6. Surviving Spouse Benefit. In the event a retiree who was eligible under Section 2 for the benefit under Section 3 dies, leaving a surviving spouse, before electing an optional form of payment under paragraph (ii) of Section 4 and before the date such an election would have become irrevocable under paragraph (i) of Section 4, then such retiree shall be deemed to have - (i) elected the joint and 100% survivor income option under sub-paragraph (D) of paragraph (ii) of Section 4; (ii) named his spouse as the 100% contingent annuitant; (iii) terminated employment on the day before his death (for reasons other than death); and (iv) survived until the day after the date as of which such benefit would have commenced.

7. Costs. In appropriate cases, Ashland may cause an affiliate to make the payment (or an allocable portion thereof) called for by the Plan directly to the person eligible to receive such payments.

8. Confidentiality and No Competition All benefits under the Plan shall be forfeited by anyone who discloses confidential information to others outside of Ashland's organization without the prior written consent of Ashland or who accepts, during a period of five (5) years following his or her retirement, any employment or consulting activity which is in direct conflict with the business of Ashland at such time. Such determination shall be made in the sole discretion of Ashland. A breach of this Section 8 shall result in an immediate forfeiture of benefits payable to any retiree under the Plan.

9. Lost Participant/Beneficiary. In the event Ashland, after reasonable effort, is unable to locate a person to whom a benefit is payable under the Plan, such benefit shall be forfeited; provided, however, that such benefit shall be reinstated (in the same amount and form as that of the benefit forfeited without any obligation to pay amounts which would otherwise have previously come due) upon proper claim made by such person prior to termination of the Plan. (i) The obligations of Ashland and any

may be, to make the payments provided for in this Plan. No Ashland or any affiliate is or shall, by reason of the Plan, be held in trust or be deemed to be held in trust for any person and any participant or beneficiary under the Plan, the estate of either of them and any person claiming under or through them shall not have, by reason of the Plan, any title or interest of any kind in or to any property of Ashland and its affiliates. To the extent any person has a right to receive payments under the Plan, such right shall be no greater than the right of any unsecured general creditor of Ashland/ or its affiliates. (ii) Ashland shall administer the Plan. Ashland shall have full power and authority to amend, modify, or terminate the Plan and shall have all powers and the discretion necessary and convenient to administer the Plan in accordance with its terms, including, but not limited to, all necessary, appropriate, discretionary and convenient power and authority to interpret, administer and apply the provisions of the Plan with respect to all persons having or claiming to have any rights, benefits, entitlements or obligations under the Plan. This includes, without limitation, the ability to construe and interpret provisions of the Plan, make determinations regarding law and fact, reconcile any inconsistencies between provisions in the Plan or between provisions of the Plan and any other statement concerning the Plan, whether oral or written, supply any omissions to the Plan or any document associated with the Plan, and to correct any defect in the Plan or in any document associated with the Plan. All such interpretations of the Plan and documents associated with the Plan and questions concerning its documents associated with the Plan and questions concerning its administration and application, as determined by Ashland, shall be binding on all persons having an interest under the Plan. Ashland may delegate (and may give to its delegatee the power and authority to redelegate) to any person or persons any responsibility, power or duty under the Plan. Decisions of Ashland or its delegatee shall be final, conclusive, and binding on all parties. (iii) Except as expressly allowed pursuant to Sections 3 and 4 of this Plan in regard to the form of benefit option, no right or interest of any person entitled to a benefit under the Plan shall be subject to voluntary or involuntary alienation, assignment, transfer, hypothecation, pledge, or encumbrance of any kind; provided, however, Ashland or any affiliate may offset or cause an offset to be made against any payment to be made under the Plan in regard to amounts due and owing from such person to Ashland or any affiliate. Notwithstanding anything to the contrary in this paragraph (iii), legally required tax withholding on benefit payments, the recovery, by any means, of previously made overpayments of Plan benefits, or the direct deposit of Plan benefit payments in a bank or similar account, provided that such direct deposits are allowed by Ashland in the administration of the Plan and provided that such direct deposit is not part of an arrangement constituting an assignment or alienation, shall not be considered to be prohibited under this paragraph (iii). (iv) No amount paid or payable under the Plan shall be deemed salary or other compensation to any employee for the purpose of computing benefits to which such employee or any other person may be entitled under any employee benefit plan of Ashland or any affiliate. (v) To the extent that state law shall not have been preempted by ERISA or any other law of the United States, the Plan shall be governed by the laws of the Commonwealth of Kentucky. (vi) The Plan described herein shall amend and supersede, as of September 19, 1996, all provisions in the Ashland Oil, Inc. Nonqualified Pension Plan as Amended, dated as of November 3, 1988, except as otherwise provided herein and further excepting that the rights of former employees who terminated employment, retired, or became disabled prior to the day before the effective date hereof shall be governed by the terms of the Plan as in effect at the time of such termination of employment, retirement, or disability, unless otherwise provided herein.

11. Change in Control. Notwithstanding any provision of this Plan to the contrary, in the event of a Change in Control (as defined hereinafter in this Section 11), any employee who would or will meet the

affiliate thereof with respect to benefits under this Plan constitute

merely the unsecured promise of Ashland and/or its affiliates,

requirements of Section 2, except that such employee has not been approved to participate as provided under paragraph (ii) of Section 2, shall be deemed to be approved for participation hereunder, regardless of when such employee actually retires and commences benefits under an Affected Plan and such entitlement shall be vested from and after the time of such Change in Ashland shall reimburse an employee for legal fees and expenses incurred if he or she is required to, and is successful in, seeking to obtain or enforce any right to payment pursuant to the Plan after a Change in Control. In the event that it shall be determined that such employee is properly entitled to the payment of benefits hereunder, such employee shall also be entitled to interest thereon payable in an amount equivalent to the prime rate of interest (quoted by Citibank, N.A. as its prime commercial lending rate on the latest date practicable prior to the date of the actual commencement of payments) from the date such payment(s) should have been made to and including the date it is made. Notwithstanding any provision of this Plan to the contrary, the Plan may not be amended after a Change in Control without the written consent of a majority of the Board of Directors of Ashland (hereinafter "Board") who were directors prior to the Change in Control. For purposes of this Section 11, a Change of Control shall be deemed to occur (1) upon the approval of the shareholders of Ashland (or if such approval is not required, upon approval of the Board) of (A) any consolidation or merger of Ashland in which Ashland is not the continuing or surviving corporation or pursuant to which shares of Ashland common stock would be converted into cash, securities or other property other than a merger in which the holders of Ashland common stock immediately prior to the merger will have the same proportionate ownership of common stock of the surviving corporation immediately after the merger, (B) any sale, lease, exchange, or other transfer (in one transaction or a series of related transactions) of all or substantially all the assets of Ashland, or (C) adoption of any plan or proposal for the liquidation or dissolution of Ashland, (2) when any "person" (as defined in Section 3(a)(9) or Section 13(d) of the Securities Exchange Act of 1934), other than Ashland or any subsidiary or employee benefit plan or trust maintained by Ashland or any of its subsidiaries, shall become the "beneficial owner" (as defined in Rule 13d-3 under the Securities Exchange Act of 1934), directly or indirectly, of more than 15% of the Ashland common stock outstanding at the time, without the approval of the Board, or (3) if at any time during a period of two consecutive years, individuals who at the beginning of such period constituted the Board shall cease for any reason to constitute at least a majority thereof, unless the election or nomination for election by Ashland's shareholders of each new director during such two-year period was approved by a vote of at least two-thirds of the directors then still in office who were directors at the beginning of such two-year period.

ASHLAND INC. 1997 STOCK INCENTIVE PLAN (As amended January 1, 1998)

Section 1. Purpose

The purpose of the Ashland Inc. 1997 Stock Incentive Plan is to promote the interests of Ashland Inc. and its shareholders by providing incentives to its directors, officers and employees. Accordingly, the Company may grant to selected officers and employees Options, Stock Appreciation Rights, Restricted Stock, Merit Awards and Performance Share Awards in an effort to attract and retain in its employ qualified individuals and to provide such individuals with incentives to continue service with Ashland, devote their best efforts to the Company and improve Ashland's economic performance, thus enhancing the value of the Company for the benefit of shareholders. The Plan also provides an incentive for qualified persons, who are not officers or employees of the Company, to serve on the Board of Directors of the Company and to continue to work for the best interests of the Company by rewarding such persons with an automatic grant of Restricted Stock of the Company upon being appointed or elected to the Company's Board of Directors. Options, Stock Appreciation Rights, Merit Awards and Performance Shares may not be granted to such Outside Directors under the Plan.

Section 2. Definitions

- (A) "Agreement" shall mean a written agreement setting forth the terms of an Award, to be entered into at the Company's discretion.
- (B) "Ashland" shall mean, collectively, Ashland Inc. and its Subsidiaries.
- (C) "Award" shall mean an Option, a Stock Appreciation Right, a Restricted Stock Award, a Merit Award, or a Performance Share Award, in each case granted under this Plan.
- (D) "Beneficiary" shall mean the person, persons, trust or trusts designated by an Employee or Outside Director or if no designation has been made, the person, persons, trust, or trusts entitled by will or the laws of descent and distribution to receive the benefits specified under this Plan in the event of an Employee's or Outside Director's death.
 - (E) "Board" shall mean the Board of Directors of the Company.
- (F) "Change in Control" shall be deemed to occur (1) upon approval of the shareholders of Ashland (or if such approval is not required, upon the approval of the Board) of (A) any consolidation or merger of Ashland in which Ashland is not the continuing or surviving corporation or pursuant to which shares of Common Stock would be converted into cash, securities or other property other than a merger in which the holders of Common Stock immediately prior to the merger will have the same proportionate ownership of Common Stock of the surviving corporation immediately after the merger, (B) any sale, lease, exchange, or other transfer (in one transaction or a series of related transactions) of all or substantially all the assets of Ashland, or (C) adoption of any plan or proposal for the liquidation or dissolution of Ashland, (2) when any "person" (as defined in Section 3(a)(9) or 13(d) of the Exchange Act), other than Ashland or any Subsidiary or employee benefit plan or trust maintained by Ashland, shall become the "beneficial owner" (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of more than 15% of Ashland's Common Stock outstanding at the time, without the approval of the Board, or (3) at any time during a period of two consecutive years, individuals who at the beginning of such period constituted the Board shall cease for any reason to constitute at least a majority thereof, unless the election or the nomination for election by Ashland's shareholders of each new director during such two-year period was approved by a vote of at least two-thirds of the directors then still in office who were directors at the beginning of such two-year period.
- (G) "Code" shall mean the Internal $\,$ Revenue Code of 1986, $\,$ as amended from time to time.
 - (H) "Committee" shall mean the Personnel and Compensation Committee of the Board, as from time to time constituted, or any successor committee of the Board with similar functions, which shall consist of three or more members, each of whom shall be a Non-Employee Director and an "outside director" as defined in the regulations issued under Section 162(m) of the Code.
 - (I) "Committee on Directors" shall mean the Committee on Directors of the Board, as from time to time constituted, or any successor committee of the Board with similar functions.
 - (J) "Common Stock" shall mean the Common Stock of the Company (\$1.00 par value), subject to adjustment pursuant to Section 13.
- (K) "Company" shall mean, collectively, Ashland Inc. and its Subsidiaries.
 - (L) "Employee" shall mean a regular, full-time or part-time employee of Ashland as selected by the Committee to receive an Award under the Plan.

- (M) "Exchange Act" shall mean the Securities Exchange Act of 1934, as amended.
 - (N) "Exercise Price" shall mean, with respect to each share of Common Stock subject to an Option, the price fixed by the Committee at which such share may be purchased from the Company pursuant to the exercise of such Option, which price at no time may be less than 100% of the Fair Market Value of the Common Stock on the date the Option is granted.
 - (0) "Fair Market Value" shall mean the price of the Common Stock as reported on the Composite Tape of the New York Stock Exchange on the date and at the time selected by the Company or as otherwise provided in the Plan.
 - (P) "Incentive Stock Option" or "ISO" shall mean an Option that is intended by the Committee to meet the requirements of Section 422 of the Code or any successor provision.
- (Q) "Merit Award" shall mean an award of Common Stock issued pursuant to Section 9 of the Plan.
 - (R) "Non-Employee Director" shall mean a non-employee director within the meaning of applicable regulatory requirements, including those promulgated under Section 16 of the Exchange Act.
 - (S) "Nonqualified Stock Option" or "NQSO" shall mean an Option granted pursuant to this Plan which does not qualify as an Incentive Stock Option.
 - (T) "Option" shall mean the right to purchase Common Stock at a price to be specified and upon terms to be designated by the Committee or otherwise determined pursuant to this Plan. An Option shall be designated by the Committee as a Nonqualified Stock Option or an Incentive Stock Option.
- (U) "Outside Director" shall mean a director of the Company who is not also an Employee of the Company.
 - (V) "Performance Goals" means performance goals as may be established in writing by the Committee which may be based on earnings, stock price, return on equity, return on investment, total return to shareholders, economic value added, debt rating or achievement of business or operational goals, such as drilling or exploration targets or profit per barrel. Such goals may be absolute in their terms or measured against or in relation to other companies comparably or otherwise situated. Such performance goals may be particular to an Employee or the division, department, branch, line of business, subsidiary or other unit in which the Employee works and/or may be based on the performance of Ashland generally.
 - (W) "Performance Period" shall mean the period designated by the Committee during which the performance objectives shall be measured.
- (X) "Performance Share Award" shall mean an award of shares of Common Stock, the issuance of which is contingent upon attainment of performance objectives specified by the Committee.
- (Y) "Performance Shares" shall mean those shares of Common Stock issuable pursuant to a Performance Share Award.
 - (Z) "Personal Representative" shall mean the person or persons who, upon the disability or incompetence of an Employee or Outside Director, shall have acquired on behalf of the Employee or Outside Director by legal proceeding or otherwise the right to receive the benefits specified in this Plan.
 - (AA) "Plan" shall mean this Ashland Inc. 1997 Stock Incentive Plan.
 - (BB) "Restricted Period" shall mean the period designated by the Committee during which Restricted Stock may not be sold, assigned, transferred, pledged, or otherwise encumbered, which period in the case of Employees shall not be less than one year from the date of grant (unless otherwise directed by the Committee), and in the case of Outside Directors is the period set forth in subsection (B) of Section 8.
 - (CC) "Restricted Stock" shall mean those shares of Common Stock issued pursuant to a Restricted Stock Award which are subject to the restrictions, terms, and conditions set forth in the related Agreement, if any.
- (DD) "Restricted Stock Award" shall mean an award of Restricted Stock.
 - (EE) "Retained Distributions" shall mean any securities or other property (other than regular cash dividends) distributed by the Company in respect of Restricted Stock during any Restricted Period.
 - (FF) "Retirement" shall mean retirement of an Employee from the employ of the Company at any time as described in the Ashland Inc. and Affiliates Pension Plan or in any successor pension plan, as from time to time in effect.
 - (GG) "Section 16(b) Optionee" shall mean an Employee or former Employee who is subject to Section 16(b) of the Exchange Act.
 - (HH) "Stock Appreciation Right" or "SAR" shall mean the right of the holder to elect to surrender an Option or any portion thereof which is then exercisable and receive in exchange therefor shares of Common Stock, cash, or a combination thereof, as the case may be, with an aggregate

value equal to the excess of the Fair Market Value of one share of Common Stock over the Exercise Price specified in such Option multiplied by the number of shares of Common Stock covered by such Option or portion thereof which is so surrendered. An SAR may only be granted concurrently with the grant of the related Option. An SAR shall be exercisable upon any additional terms and conditions (including, without limitation, the issuance of Restricted Stock and the imposition of restrictions upon the timing of exercise) which may be determined as provided in the Plan.

- (II) "Subsidiary" shall mean any present or future subsidiary corporations, as defined in Section 424 of the Code, of Ashland.
- (JJ) "Tax Date" shall mean the date the withholding tax obligation arises with respect to the exercise of an Award.

Section 3. Stock Subject To The Plan

There will be reserved for issuance under the Plan (upon the exercise of Options and Stock Appreciation Rights, upon awards of Restricted Stock, Performance Shares and Merit Awards and for stock bonuses on deferred awards of Restricted Stock and Performance Shares), an aggregate of 3,212,000 shares of Ashland Common Stock, par value \$1.00 per share; provided, however, that of such shares, only 500,000 shares in the aggregate shall be available for issuance for Restricted Stock Awards and Merit Awards. Such shares shall be authorized but unissued shares of Common Stock. Except as provided in Sections 7 and 8, if any Award under the Plan shall expire or terminate for any reason without having been exercised in full, or if any Award shall be forfeited, the shares subject to the unexercised or forfeited portion of such Award shall again be available for the purposes of the Plan. During the term of the Plan (as provided in Section 14 hereof), no Employee shall be granted more than a total of 500,000 in Options or Stock Appreciation Rights.

Section 4. Administration

Except as provided in subsection (B) of Section 8 herein, the Plan shall be administered by the Committee.

In addition to any implied powers and duties that may be needed to carry out the provisions of the Plan, the Committee shall have all the powers vested in it by the terms of the Plan, including exclusive authority (except as to Awards of Restricted Stock granted to Outside Directors) to select the Employees to be granted Awards under the Plan, to determine the type, size and terms of the Awards under the Plan, to determine the form of the Agreements embodying Awards made under the Plan. Subject to the provisions of the Plan specifically governing Awards of Restricted Stock granted or to be granted to Outside Directors pursuant to subsection (B) of Section 8 herein, the Committee shall be authorized to interpret the Plan and the Awards granted under the Plan, to establish, amend and rescind any rules and regulations relating to the Plan, to make any other determinations which it believes necessary or advisable for the administration of the Plan, and to correct any defect or supply any omission or reconcile any inconsistency in the Plan or in any Award in the manner and to the extent the Committee deems desirable to carry it into effect. Any decision of the Committee in the administration of the Plan, shall be final and conclusive.

The Committee (or, in the case of subsection (B) of Section 8 herein, the Committee on Directors) may act only by a majority of its members. Any determination of the Committee or the Committee on Directors may be made, without notice, by the written consent of the majority of the members of the Committee or the Committee on Directors. In addition, the Committee or the Committee on Directors may authorize any one or more of their number or any officer of the Company to execute and deliver documents on behalf of the Committee or the Committee on Directors. No member of the Committee or the Committee on Directors shall be liable for any action taken or omitted to be taken by him or her or by any other member of the Committee or the Committee on Directors in connection with the Plan, except for his or her own willful misconduct or as expressly provided by statute.

Section 5. Eligibility

Awards may only be granted (i) to individuals who are Employees of Ashland, and (ii) as expressly provided in subsection (B) of Section 8 of the Plan, to individuals who are duly elected Outside Directors of Ashland.

Section 6. Options

A. Designation and Price.

(a) Any Option granted under the Plan may be granted as an Incentive Stock Option or as a Nonqualified Stock Option as shall be designated by

the Committee at the time of the grant of such Option. Each Option shall, at the discretion of the Company and as directed by the Committee, be evidenced by an Agreement between the recipient and the Company, which Agreement shall specify the designation of the Option as an ISO or a NQSO, as the case may be, and shall contain such terms and conditions as the Committee, in its sole discretion, may determine in accordance with the Plan.

- (b) Every Incentive Stock Option shall provide for a fixed expiration date of not later than ten years from the date such Incentive Stock Option is granted. Every Nonqualified Stock Option shall provide for a fixed expiration date of not later than ten years and one month from the date such Nonqualified Stock Option is granted.
- (c) The Exercise Price of Common Stock issued pursuant to each Option shall be fixed by the Committee at the time of the granting of the Option; provided, however, that such Exercise Price shall in no event be less than 100% of the Fair Market Value of the Common Stock on the date such Option is granted.

B. Exercise.

The Committee may, in its discretion, provide for Options granted under the Plan to be exercisable in whole or in part; provided, however, that no Option shall be exercisable prior to the first anniversary of the date of its grant, except as provided in Section 11 or as the Committee otherwise determines in accordance with the Plan, and in no case may an Option be exercised at any time for fewer than 50 shares (or the total remaining shares covered by the Option if fewer than 50 shares) during the term of the Option. The specified number of shares will be issued upon receipt by Ashland of (i) notice from the holder thereof of the exercise of an Option, and (ii) payment to Ashland (as provided in this Section 6, subsection (C) below), of the Exercise Price for the number of shares with respect to which the Option is exercised. Each such notice and payment shall be delivered or mailed by postpaid mail, addressed to the Treasurer of Ashland at Ashland Inc., 1000 Ashland Drive, Russell, Kentucky 41169, or such other place or person as Ashland may designate from time to time.

C. Payment for Shares.

Except as otherwise provided in this Section 6, the Exercise Price for the Common Stock shall be paid in full when the Option is exercised. Subject to such rules as the Committee may impose, the Exercise Price may be paid in whole or in part (i) in cash, (ii) in whole shares of Common Stock owned by the Employee and evidenced by negotiable certificates, valued at their Fair Market Value (which shares of Common Stock must have been owned by the Employee six months or longer, and not used to effect an Option exercise within the preceding six months, unless the Committee an option exercise within the preceding six months, unless the committee specifically provides otherwise), (iii) by Attestation, (iv) by a combination of such methods of payment, or (v) by such other consideration as shall constitute lawful consideration for the issuance of Common Stock and be approved by the Committee (including, without limitation, effecting a "cashless exercise," with a broker, of the Option). "Attestation" means the delivery to Ashland of a completed Attestation Form prescribed by Ashland setting forth the whole shares of Common Stock owned by the Employee which the Employee wishes to utilize to pay the Exercise Price. The Common Stock listed on the Attestation Form must have been owned by the Employee six months or longer, and not have been used to effect an Option exercise within the preceding six months, unless the Committee specifically provides otherwise. A "cashless exercise" of an option is a procedure by which a broker provides the funds to an Employee to effect an option exercise. At the direction of the Employee, the broker will either (i) sell all of the shares received when the option is exercised and pay the Employee the proceeds of the sale (minus the option exercise price, withholding taxes and any fees due to the broker) or (ii) sell enough of the shares received upon exercise of the option to cover the exercise price, withholding taxes and any fees due the broker and deliver to the Employee (either directly or through the Company) a stock certificate for the remaining shares. Dispositions to a broker effecting a cashless exercise are not exempt under Section 16 of the Exchange Act.

Section 7. Stock Appreciation Rights

The Committee may grant Stock Appreciation Rights pursuant to the provisions of this Section 7 to any holder of any Option granted under the Plan with respect to all or a portion of the shares subject to the related Option. An SAR may only be granted concurrently with the grant of the related Option. Subject to the terms and provisions of this Section 7, each SAR shall be exercisable only at the same time and to the same extent the related Option is exercisable and in no event after the termination of the related Option. An SAR shall be exercisable only when the Fair Market Value (determined as of the date of exercise of the SAR) of each share of Common Stock with respect to which the SAR is to be exercised shall exceed the Exercise Price per share of Common Stock subject to the related Option. An SAR granted under the Plan shall be exercisable in whole or in part by notice to Ashland. Such notice shall state that the holder of the SAR elects to exercise the SAR and the number of shares in respect of which the SAR is being exercised.

Subject to the terms and provisions of this Section 7, upon the exercise of an SAR, the holder thereof shall be entitled to receive from Ashland consideration (in the form hereinafter provided) equal in value to the excess of the Fair Market Value (determined as of the date of

exercise of the SAR) of each share of Common Stock with respect to which such SAR has been exercised over the Exercise Price per share of Common Stock subject to the related Option. The Committee may stipulate in the Agreement the form of consideration which shall be received upon the exercise of an SAR. If no consideration is specified therein, upon the exercise of an SAR, the holder may specify the form of consideration to be received by such holder, which shall be in shares of Common Stock, or in cash, or partly in cash and partly in shares of Common Stock (valued at Fair Market Value on the date of exercise of the SAR), as the holder shall request; provided, however, that the Committee, in its sole discretion, may disapprove the form of consideration requested and instead authorize the payment of such consideration in shares of Common Stock (valued as aforesaid), or in cash, or partly in cash and partly in shares of Common Stock.

Upon the exercise of an SAR, the related Option shall be deemed exercised to the extent of the number of shares of Common Stock with respect to which such SAR is exercised and to that extent a corresponding number of shares of Common Stock shall not again be available for the grant of Awards under the Plan. Upon the exercise or termination of the related Option, the SAR with respect thereto shall be considered to have been exercised or terminated to the extent of the number of shares of Common Stock with respect to which the related Option was so exercised or terminated.

Section 8. Restricted Stock Awards

A. Awards to Employees

The Committee may make an award of Restricted Stock to selected Employees, which may, at the Company's discretion and as directed by the Committee, be evidenced by an Agreement which shall contain such terms and conditions as the Committee, in its sole discretion, may determine. The amount of each Restricted Stock Award and the respective terms and conditions of each Award (which terms and conditions need not be the same in each case) shall be determined by the Committee in its sole discretion. As a condition to any Award hereunder, the Committee may require an Employee to pay to the Company a non-refundable amount equal to, or in excess of, the par value of the shares of Restricted Stock awarded to him or her. Subject to the terms and conditions of each Restricted Stock Award, the Employee, as the owner of the Common Stock issued as Restricted Stock, shall have all rights of a shareholder including, but not limited to, voting rights as to such Common Stock and the right to receive dividends thereon when, as and if paid.

In the event that a Restricted Stock Award has been made to an Employee whose employment or service is subsequently terminated for any reason prior to the lapse of all restrictions thereon, such Restricted Stock will be forfeited in its entirety by such Employee; provided, however, that the Committee may, in its sole discretion, limit such forfeiture.

Employees may be offered the opportunity to defer the receipt of payment of vested shares of Restricted Stock, and Common Stock may be granted as a bonus for deferral, under terms as may be established by the Committee from time to time; however, in no event shall the Common Stock granted as a bonus for deferral exceed 20% of the Restricted Stock so deferred.

B. Awards to Outside Directors

During the term of the Plan, each person who is duly appointed or elected as an Outside Director shall be granted, effective on the date of his or her appointment or election to the Board, an Award of 1,000 shares of Restricted Stock. All Awards under this subsection (B) are subject to the limitation on the number of shares of Common Stock available pursuant to Section 3 and to the terms and conditions set forth in this subsection (B) and subsection (C) below.

As a condition to any Award hereunder, the Outside Director may be required to pay to the Company a non-refundable amount equal to the par value of the shares of Restricted Stock awarded to him or her. Upon the granting of the Restricted Stock Award, such Outside Director shall be entitled to all rights incident to ownership of Common Stock of the Company with respect to his or her Restricted Stock, including, but not limited to, the right to vote such shares of Restricted Stock and to receive dividends thereon when, as and if paid; provided, however, that, subject to subsection (C) hereof, in no case may any shares of Restricted Stock granted to an Outside Director be sold, assigned, transferred, pledged, or otherwise encumbered during the Restricted Period which shall not lapse until the earlier to occur of the following: (i) retirement from the Board at age 70, (ii) the death or disability of such Outside Director, (iii) a 50% change in the beneficial ownership of the Company as defined in Rule 13d-3 under the Exchange Act, or (iv) voluntary early retirement to take a position in governmental service. Unless otherwise determined and directed by the Committee on Directors, in the case of voluntary resignation or other termination of service of an Outside Director prior to the occurrence of any of the events described in the preceding sentence, any grant of Restricted Stock made to him or her pursuant to this subsection (B) will be forfeited by such Outside Director. As used herein, a director shall be deemed "disabled" when he or she is unable to attend to his or her duties and responsibilities as a member of the Board because of incapacity due to physical or mental illness.

C. Transferability

Subject to subsection (B) of Section 15 hereof, Restricted Stock may not be sold, assigned, transferred, pledged, or otherwise encumbered during a Restricted Period, which, in the case of Employees, shall be determined by the Committee and, unless otherwise determined by the Committee, shall not be less than one year from the date such Restricted Stock was awarded, and, in the case of Outside Directors, shall be determined in accordance with subsection (B) of this Section 8. The Committee may, at any time, reduce the Restricted Period with respect to any outstanding shares of Restricted Stock awarded under the Plan to Employees, but, unless otherwise determined by the Committee, such Restricted Period shall not be less than one year.

During the Restricted Period, certificates representing the Restricted Stock and any Retained Distributions shall be registered in the recipient's name and bear a restrictive legend to the effect that ownership of such Restricted Stock (and any such Retained Distributions), and the enjoyment of all rights appurtenant thereto are subject to the restrictions, terms, and conditions provided in the Plan and the applicable Agreement, if any. Such certificates shall be deposited by the recipient with the Company, together with stock powers or other instruments of assignment, each endorsed in blank, which will permit transfer to the Company of all or any portion of the Restricted Stock and any securities constituting Retained Distributions which shall be forfeited in accordance with the Plan and the applicable Agreement, any. Restricted Stock shall constitute issued and outstanding shares of Common Stock for all corporate purposes. The recipient will have the right to vote such Restricted Stock, to receive and retain all regular cash dividends, and to exercise all other rights, powers, and privileges of a holder of Common Stock with respect to such Restricted Stock, with the exception that (i) the recipient will not be entitled to delivery of the stock certificate or certificates representing such Restricted Stock until the restrictions applicable thereto shall have expired; (ii) the Company will retain custody of all Retained Distributions made or declared with respect to the Restricted Stock (and such Retained Distributions will be subject to the same restrictions, terms and conditions as are applicable to the Restricted Stock) until such time, if ever, as the Restricted Stock with respect to which such Retained Distributions shall have been made, paid, or declared shall have become vested, and such Retained Distributions shall not bear interest or be segregated in separate accounts; (iii) subject to subsection (B) of Section 15 hereof, the recipient may not sell, assign, transfer, pledge, exchange, encumber, or dispose of the Restricted Stock or any Retained Distributions during the Restricted Period; and (iv) a breach of any restrictions, terms, or conditions provided in the Plan or established by the Committee with respect to any Restricted Stock or Retained Distributions will cause a forfeiture of such Restricted Stock and any Retained Distributions with respect thereto.

Section 9. Merit Awards

The Committee may from time to time make an award of Common Stock under the Plan to selected Employees for such reasons and in such amounts as the Committee, in its sole discretion, may determine. As a condition to any such Merit Award, the Committee may require an Employee to pay to the Company an amount equal to, or in excess of, the par value of the shares of Common Stock awarded to him or her.

Section 10. Performance Shares

The Committee may make awards of Common Stock which may, in the Company's discretion and as directed by the Committee, be evidenced by an Agreement, to selected Employees on the basis of the Company's financial performance in any given period. Subject to the provisions of the Plan, the Committee shall have sole and complete authority to determine the Employees who shall receive such Performance Shares, to determine the number of such shares to be granted for each Performance Period, and to determine the duration of each such Performance Period. There may be more than one Performance Period in existence at any one time, and the duration of Performance Periods may differ from each other.

The Performance Goals and Performance Period applicable to an award of Performance Shares shall be set forth in writing by the Committee no later than 90 days after the commencement of the Performance Period and shall be communicated to the Employee. The Committee shall have the discretion to later revise the Performance Goals solely for the purpose of reducing or eliminating the amount of compensation otherwise payable upon attainment of the Performance Goals; provided that the Performance Goals and the amounts payable upon attainment of the Performance Goals may be adjusted during any Performance Period to reflect promotions, transfers or other changes in an Employee's employment so long as such changes are consistent with the Performance Goals established for other Employees in the same or similar positions.

In making a Performance Share award, the Committee may take into account an Employee's responsibility level, performance, cash compensation level, incentive compensation awards and such other considerations as it deems appropriate. Each Performance Share award shall be established in shares of Common Stock and/or shares of Restricted Stock in such proportions as the Committee shall determine. The original amount of any Performance Share award shall not exceed 250,000 shares of Common Stock or Restricted Stock.

The Committee shall determine, in its sole discretion, the manner of payment, which may include (i) cash, (ii) shares of Common Stock, or (iii) shares of Restricted Stock in such proportions as the Committee shall determine. Employees may be offered the opportunity to defer the receipt of payment of earned Performance Shares, and Common Stock may be granted as a bonus for deferral under terms as may be established by the Committee from time to time; however, in no event shall the Common Stock granted as a bonus for deferral exceed 20% of the Performance Shares so deferred.

An Employee must be employed by the Company at the end of a Performance Period in order to be entitled to payment of Performance Shares in respect of such period; provided, however, that in the event of an Employee's cessation of employment before the end of such period, or upon the occurrence of his or her death, retirement, or disability, or other reason approved by the Committee, the Committee may, in its sole discretion, limit such forfeiture.

Section 11. Continued Employment, Agreement To Serve And Exercise Periods

- (A) Subject to the provisions of subsection (F) of this Section 11, every Option and SAR shall provide that it may not be exercised in whole or in part for a period of one year after the date of granting such Option (unless otherwise determined by the Committee) and if the employment of the Employee shall terminate prior to the end of such one year period (or such other period determined by the Committee), the Option granted to such Employee shall immediately terminate.
- (B) Every Option shall provide that in the event the Employee dies (i) while employed by Ashland, (ii) during the periods in which Options may be exercised by an Employee determined to be disabled as provided in subsection (C) of this Section 11 or (iii) after Retirement, such Option shall be exercisable, at any time or from time to time, prior to the fixed termination date set forth in the Option, by the Beneficiaries of the decedent for the number of shares which the Employee could have acquired under the Option immediately prior to the Employee's death.
- (C) Every Option shall provide that in the event the employment of any Employee shall cease by reason of disability, as determined by the Committee at any time during the term of the Option, such Option shall be exercisable, at any time or from time to time prior to the fixed termination date set forth in the Option by such Employee for the number of shares which the Employee could have acquired under the Option immediately prior to the Employee's disability. As used herein, an Employee will be deemed "disabled" when he or she becomes unable to perform the functions required by his or her regular job due to physical or mental illness and, in connection with the grant of an Incentive Stock Option shall be disabled if he or she falls within the meaning of that term as provided in Section 22(e)(3) of the Code. The determination by the Committee of any question involving disability shall be conclusive and binding.
- (D) Every Option shall provide that in the event the employment of any Employee shall cease by reason of Retirement, such Option may be exercised at any time or from time to time, prior to the fixed termination date set forth in the Option for the number of shares which the Employee could have acquired under the Option immediately prior to such Retirement.
- (E) Except as provided in subsections (A), (B), (C), (D), (F) and (G) of this Section 11, every Option shall provide that it shall terminate on the earlier to occur of the fixed termination date set forth in the Option or thirty (30) days after cessation of the Employee's employment for any cause only in respect of the number of shares which the Employee could have acquired under the Option immediately prior to such cessation of employment; provided, however, that no Option may be exercised after the fixed termination date set forth in the Option.
- (F) Notwithstanding any provision of this Section 11 to the contrary, any Award granted pursuant to the Plan, except a Restricted Stock Award to Outside Directors, which is governed by Section 8, subsection (B), may, in the discretion of the Committee or as provided in the relevant Agreement (if any), become exercisable, at any time or from time to time, prior to the fixed termination date set forth in the Award for the full number of awarded shares or any part thereof, less such numbers as may have been theretofore acquired under the Award (i) from and after the time the Employee ceases to be an Employee of Ashland as a result of the sale or other disposition by Ashland of assets or property (including shares of any Subsidiary) in respect of which such Employee had theretofore been employed or as a result of which such Employee's continued employment with Ashland is no longer required, and (ii) in the case of a Change in Control of Ashland, from and after the date of such Change in Control.
- (G) Notwithstanding any provision of this Section 11 to the contrary, in the event the Committee determines, in its sole and absolute discretion, that the employment of any Employee has terminated for a reason or in a manner adversely affecting the Company (which may include, without limitation, taking other employment or rendering service to others without the consent of the Company), then the Committee may direct that such Employee forfeit any and all Options that he or she could otherwise have exercised pursuant to the terms of this Plan.
 - (H) Each Employee granted an Award under this Plan shall agree by his

or her acceptance of such Award to remain in the service of Ashland for a period of at least one year from the date of the Agreement respecting the Award between Ashland and the Employee (or, if no Agreement is entered into, at least one year from the date of the Award). Such service shall, subject to the terms of any contract between Ashland and such Employee, be at the pleasure of Ashland and at such compensation as Ashland shall reasonably determine from time to time. Nothing in the Plan, or in any Award granted pursuant to the Plan, shall confer on any individual any right to continue in the employment of or service to Ashland or interfere in any way with the right of Ashland to terminate the Employee's employment at any time.

(I) Subject to the limitations set forth in Section 422 of the Code, the Committee may adopt, amend, or rescind from time to time such provisions as it deems appropriate with respect to the effect of leaves of absence approved by any duly authorized officer of Ashland with respect to any Employee.

Section 12. Withholding Taxes

Federal, state or local law may require the withholding of taxes applicable to gains resulting from the exercise of an Award. Unless otherwise prohibited by the Committee, each Employee may satisfy any such tax withholding obligation by any of the following means, or by a combination of such means: (i) a cash payment, (ii) authorizing Ashland to withhold from the shares of Common Stock otherwise issuable to the Employee pursuant to the exercise or vesting of an Award a number of shares having a Fair Market Value, as of the Tax Date, which will satisfy the amount of the withholding tax obligation, or (iii) by delivery to Ashland of a number of shares of Common Stock having a Fair Market Value as of the Tax Date which will satisfy the amount of the withholding tax obligation arising from an exercise or vesting of an Award. An Employee's election to pay the withholding tax obligation by (ii) or (iii) above must be made on or before the Tax Date, is irrevocable, is subject to such rules as the Committee may adopt, and may be disapproved by the Committee. If the amount requested is not paid, the Committee may refuse to issue Common Stock under the Plan.

Section 13. Adjustments Upon Changes In Capitalization

In the event of any change in the outstanding Common Stock of the Company by reason of any stock split, stock dividend, recapitalization, merger, consolidation, reorganization, combination, or exchange of shares, split-up, split-off, spin-off, liquidation or other similar change in capitalization, or any distribution to common stockholders other than cash dividends, the number or kind of shares that may be issued under the Plan pursuant to Section 3 and the number or kind of shares subject to, or the price per share under any outstanding Award shall be automatically adjusted so that the proportionate interest of the Employee or Outside Director shall be maintained as before the occurrence of such event. Such adjustment shall be conclusive and binding for all purposes of the Plan.

Section 14. Amendments And Terminations

Unless the Plan shall have been earlier terminated as hereinafter provided, no Awards shall be granted hereunder after January 30, 2002. The Board, the Committee, or the Committee on Directors may at any time terminate, modify or amend the Plan in such respects as it shall deem advisable; provided, however, that the Board or the Committee may not, without approval by the holders of a majority of the outstanding shares of stock present and voting at any annual or special meeting of shareholders of Ashland change the manner of determining the minimum Exercise Price of Options, other than to change the manner of determining the Fair Market Value of the Common Stock as set forth in Section 2.

Section 15. Miscellaneous Provisions

- (A) Except as to an Award of 1,000 Restricted Shares to an Outside Director upon being appointed or elected to the Company's Board of Directors, no Employee or other person shall have any claim or right to be granted an Award under the Plan.
- (B) An Employee's or Outside Director's rights and interest under the Plan may not be assigned or transferred in whole or in part, either directly or by operation of law or otherwise (except in the event of an Employee's or Outside Director's death, by will or the laws of descent and distribution), including, but not by way of limitation, execution, levy, garnishment, attachment, pledge, bankruptcy or in any other manner, and no such right or interest of any Employee or Outside Director in the Plan shall be subject to any obligation or liability of such individual; provided, however, that an Employee's or Outside Director's rights and interest under the Plan may, subject to the discretion and direction of

the Committee or, in the case of an Outside Director, the Committee on Directors, be made transferable by such Employee or Outside Director during his or her lifetime. Except as specified in Section 8, the holder of an Award shall have none of the rights of a shareholder until the shares subject thereto shall have been registered in the name of the person receiving or person or persons exercising the Award on the transfer books of the Company.

- (C) No Common Stock shall be issued hereunder unless counsel for the Company shall be satisfied that such issuance will be in compliance with applicable Federal, state, and other securities laws.
 - (D) The expenses of the Plan shall be borne by the Company.
- (E) By accepting any Award under the Plan, each Employee and Outside Director and each Personal Representative or Beneficiary claiming under or through him or her shall be conclusively deemed to have indicated his or her acceptance and ratification of, and consent to, any action taken under the Plan by the Company, the Board, the Committee or the Committee on Directors.
- (F) Awards granted under the Plan shall be binding upon Ashland, its successors, and assigns.
 - (G) The appropriate officers of the Company shall cause to be filed any reports, returns, or other information regarding Awards hereunder or any Common Stock issued pursuant hereto as may be required by Sections 13, 15(d) or 16(a) of the Exchange Act, or any other applicable statute, rule, or regulation.
 - (H) Nothing contained in this Plan shall prevent the Board of Directors from adopting other or additional compensation arrangements, subject to shareholder approval if such approval is required.
 - (I) Each Employee shall be deemed to have been granted any Award on the date the Committee took action to grant such Award under the Plan or such later date as the Committee in its sole discretion shall determine at the time such grant is authorized.

Section 16. Effectiveness Of The Plan

The Plan was submitted to the shareholders of the Company for their approval and adoption on January 30, 1997 and was approved by the shareholders on that date.

Section 17. Governing Law

The provisions of this Plan shall be interpreted and construed in accordance with the laws of the Commonwealth of Kentucky.

| (In millions) | 1998 | 1997 | 1996 |
|--|---|---|-----------|
| SALES AND OPERATING REVENUES | | | |
| Ashland Chemical | \$4,087 | \$ 3,929 | \$ 3,602 |
| APAC | 1,444 | 1,257 | 1,235 |
| Valvoline | 1,023 | 1,053 | 1,133 |
| Refining and Marketing | - | 6,828 | 6,570 |
| Intersegment sales | (20) | (234) | (227) |
| | \$6,534 | \$ 12,833 | \$ 12,313 |
| OPERATING INCOME | | | |
| Ashland Chemical | \$ 158 | \$ 140 | \$ 170 |
| APAC | 90 | 82 | 83 |
| Valvoline | 53 | 65 | 79 |
| Refining and Marketing(F1) | 254 | 209 | 101 |
| Inventory valuation adjustments(F2) | (15) | - | - |
| Arch Coal | 25 | 25 | 22 |
| Corporate | (118) | (60) | (96) |
| | \$ 447 | \$ 461 | \$ 359 |
| OPERATING INFORMATION | ======================================= | ======================================= | ======== |
| APAC | | | |
| Construction backlog at September 30 (millions) | \$ 838 | \$ 693 | \$ 647 |
| Hot mix asphalt production (million tons) | 23.1 | 20.3 | 19.3 |
| Aggregate production (million tons) | 20.3 | 17.0 | 15.8 |
| Valvoline lubricant sales (thousand barrels per day) | 16.7 | 15.8 | 15.1 |
| Refining and Marketing(F3) | | | |
| Refined product sold (thousand barrels per day) | 1,183.7 | | |
| Crude oil refined (thousand barrels per day) | 904.6 | | |
| Arch Coal(F3) | | | |
| Tons sold (millions) | 67.3 | 53.7 | 50.6 |
| Tons produced (millions) | 61.8 | 50.0 | 46.6 |

[FN] (F1)

- Effective January 1, 1998, includes Ashland's equity income from Marathon Ashland Petroleum LLC (MAP), amortization of Ashland's excess investment in MAP, and certain retained refining and marketing activities.
- Represents Ashland's share of inventory adjustments associated with the formation of MAP and changes in MAP's inventory market valuation reserve. The reserve reflects the excess of the LIFO cost of MAP's crude oil and refined product inventories over their (F2) net realizable values.
- (F3) Amounts represent 100 percent of the volumes of MAP or Arch Coal. MAP commenced operations January 1, 1998.

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BASIS OF PRESENTATION

During 1998, Ashland and Marathon Oil Company formed Marathon Ashland Petroleum LLC (MAP), combining the major elements of the refining, marketing and transportation operations of the two companies. Marathon has a 62% interest in MAP and Ashland holds a 38% interest, which is accounted for using the equity method of accounting. For comparison purposes, Ashland changed its method of accounting for the businesses conveyed to MAP to the enangeu its method or accounting for the businesses conveyed to MAP to the equity method as of the beginning of fiscal 1998. Since restatement of financial statements for years prior to 1998 is not permitted under generally accepted accounting principles, Ashland's financial statements for 1998 are not comparable to 1997 and 1996. The change had no effect on Ashland's net income or common stockholders' equity, but reduced its revenues, costs, assets and liabilities, and changed certain components of its cash flow.

RESULTS OF OPERATIONS

Ashland's net income amounted to \$203 million in 1998, \$279 million in 1997 and \$211 million in 1996. However, such earnings include various unusual items which significantly affected the comparisons. The following table shows the effects of unusual items on Ashland's operating and net income for the three years ended September 30, 1998.

| | | Operating | g income | | Ne | t income |
|--|------------------|------------------|------------------|-------|------------------|----------|
| (In millions) | 1998 ======== | 1997 ======== | 1996 ======== | 1998 | 1997 ======== | 1996 |
| Income before unusual items G&A restructuring and headquarters move | \$541 | \$489 | \$359 | \$263 | \$245 | \$163 |
| | (50) | - | - | (31) | - | - |
| Environmental and severance reserves | (43) | - | - | (26) | - | |
| LIFO inventory adjustments | (15) | - | - | (9) | - | |

| Gain on sale of Blazer Energy Asset impairment write-downs | - | (26) | - | - | (22) | - |
|---|-------|-------|-------|-------|-------|-------|
| Costs related to coal merger | - | (13) | - | - | (13) | - |
| Inventory liquidation gains | - | 11 | - | - | (0) | - |
| Extraordinary loss on debt prepayment Columbia Gas bankruptcy settlement | - | - | - | - | (9) | 48 |
| | - | | - | - | - | 40 |
| Income as reported | \$447 | \$461 | \$359 | \$203 | \$279 | \$211 |

During 1998, Ashland restructured its corporate general and administrative functions and decided to move its headquarters. Costs associated with these actions are estimated at \$57 million, of which \$50 million was recognized in 1998. The remainder will be recognized as relocations occur in 1999. In addition, when MAP was formed, Ashland contractually agreed to complete certain voluntary efforts in progress at various operating locations conveyed to MAP, as well as retain the costs associated with issues addressed in a multi-media inspection of former Ashland refineries by the Environmental Protection Agency. Ashland also decided to close a landfill near its former refinery at Catlettsburg, Kentucky. Charges associated with these issues amounted to \$38 million. An additional \$5 million was provided for severance costs associated with the consolidation of MAP's retail marketing headquarters. Other unusual items included a gain of \$14 million from the sale of Ashland's stock in Melamine Chemicals, and a charge of \$15 million for Ashland's share of inventory adjustments associated with the formation of MAP and changes in MAP's inventory market valuation reserve. That reserve reflects the excess of the LIFO costs of MAP's crude oil and refined product inventories over their net realizable values.

During 1997, Ashland decided to sell Blazer Energy, its exploration and production subsidiary. Ashland sold Blazer's domestic operations for \$566 million during July 1997, resulting in an after tax gain of \$71 million. In 1998, Ashland completed its withdrawal from the business through the sale of its Nigerian operations with no significant gain or loss.

Ashland Coal and Arch Mineral merged in July 1997 to form Arch Coal, Inc. Many synergistic opportunities were pursued, some of which led to the charge of \$13 million to write-off duplicate facilities previously owned by Arch Mineral and provide for severance and other costs related to the merger. Other unusual items in 1997 included goodwill write-downs of \$26 million by Valvoline and Ashland Chemical, a gain of \$11 million from the liquidation of certain inventories of Refining and Marketing and an extraordinary loss of \$9 million related to the prepayment of certain long-term debt. While Ashland remains committed to expanding Ashland Chemical and Valvoline on a global basis, results from certain of their European operations were well below the levels which were expected when they were acquired, necessitating write-downs of the related goodwill. The inventory gain resulted from reductions in the crude oil and petroleum product inventories of Refining and Marketing that were accounted for on the last-in, first-out (LIFO) method. LIFO inventories are valued at their costs in the years acquired, and such costs were below the current replacement costs of the inventories.

Ashland entered into a settlement agreement during 1995 with Columbia Gas Transmission to resolve claims involving natural gas sales contracts that were abrogated by Columbia in 1991. The agreement provided for a \$78 million payment to Ashland, of which 5% would be withheld by Columbia to be used to potentially satisfy the claims of non-settling producers. The net proceeds were received under this agreement in 1996, resulting in net income of \$48 million.

Ashland Inc. and Consolidated Subsidiaries MANAGEMENT'S DISCUSSION AND ANALYSIS

RESULTS OF OPERATIONS (CONTINUED)

Excluding unusual items, net income amounted to \$263 million in 1998, compared to \$245 million in 1997. While the majority of the improvement came from Refining and Marketing, APAC also achieved record results in 1998. Ashland Chemical, Valvoline and Arch Coal reported reduced earnings. Net income of \$245 million for 1997 was up from \$163 million in 1996. Refining and Marketing results were up considerably, as were earnings from Ashland's coal investments. Although results from Ashland Chemical, APAC and Valvoline were down from their 1996 levels, the declines resulted from higher allocations of Corporate expenses in most cases. Ashland began allocating more of these expenses in 1997 to the segments to better reflect their costs of doing business.

The following table compares operating income before unusual items by segment for the three years ended September 30, 1998. The increased allocations of Corporate expenses reduced the operating results of the segments on a comparative basis by \$39 million beginning in 1997, but did not have a significant impact on overall income.

| | \$541 | \$489 | \$359 |
|------------------------|-------|----------|-------|
| Corporate | (68) | (60) | (96) |
| Arch Coal | 25 | 38 | 22 |
| Refining and Marketing | 297 | 198 | 101 |
| Valvoline | 53 | 75 | 79 |
| APAC | 90 | 82 | 83 |
| Ashland Chemical | \$144 | \$156 | \$170 |
| Operating income | | | |
| (In millions) | 1998 | 1997 | 1996 |
| | | | |

(Bar graph appears in the left margin comparing operating income from Ashland Inc. for fiscal 1996, 1997 and 1998.)

ASHLAND CHEMICAL

Excluding unusual items, operating income of Ashland Chemical decreased from \$156 million in 1997 to \$144 million in 1998, reflecting lower results from all business groups. Operating income from the distribution businesses was down slightly, due to reduced sales volumes of industrial chemicals and solvents. Results from specialty chemicals declined \$9 million, as reduced earnings from electronic chemicals and foundry products more than offset the favorable effects of costs reductions by marine chemicals. Electronic chemicals felt the adverse effects of the Asian crisis on the domestic semiconductor industry, as well as start-up costs associated with its new manufacturing plant in Pueblo, Colorado. Foundry products were also affected by the Asian crisis, as well as the strike at General Motors and unfavorable translation effects from the strong U. S. Dollar on the earnings from its foreign operations. Results from petrochemicals were down \$3 million, reflecting very weak methanol markets.

Ashland Chemical's operating income before unusual items amounted to \$156 million in 1997, compared to \$170 million in 1996. Results from the distribution businesses were down slightly due to margin declines for industrial chemicals and solvents. Operating income from specialty chemicals improved \$5 million on the strength of higher electronic chemical sales volumes and margins, but the effect was partially offset by lower marine chemical sales volumes. Earnings from petrochemicals were up \$3 million, reflecting increased methanol sales volumes and margins. Ashland Chemical also incurred an additional \$11 million allocation of Corporate expenses, as well as charges of \$8 million for environmental remediation and plant shutdown costs.

(Bar graph appears in the left margin comparing operating income from Ashland Chemical for fiscal 1996, 1997 and 1998.)

APAC

The APAC construction companies achieved record results in 1998 with operating income of \$90 million, compared to \$82 million in 1997. Reflecting newly acquired operations, including the Masters-Jackson group, net revenue (total revenue less subcontract work) was up 17%, while production of asphalt and crushed aggregate increased 13% and 19%. In addition, liquid asphalt costs per ton were down about 7%, enhancing margins.

Operating income from APAC amounted to \$82 million in 1997, compared to \$83 million in 1996. Net revenue was up 4%, while production of hot mix asphalt increased 5% and crushed aggregate was up 8%. The favorable effects, however, were more than offset by an additional \$4 million in Corporate expense allocations.

(Bar graph appears in the left margin comparing operating income from APAC for fiscal 1996, 1997 and 1998.)

VALVOLINE

Operating income from Valvoline was \$53 million in 1998, compared to \$75 million in 1997 before unusual items. The decline reflects a \$24 million

reduction in gross profit from R-12, an automotive refrigerant. Ample inventory of R-12 at the distributor and retail levels reduced the demand during 1998. Valvoline's earnings decline also reflects lower antifreeze margins, as well as increased advertising and promotional expenses related to the introduction of Valvoline's Synpower premium automotive chemicals line and Eagle One appearance products. In addition, the used oil collection business felt the adverse effects of soft used oil fuel prices and costs associated with new collection programs. On the positive side, earnings from Valvoline's core lubricant and international operations improved significantly, reflecting higher sales volumes and better domestic product mix. Earnings from Valvoline Instant Oil Change (VIOC) were also up slightly, reflecting higher revenues per car serviced. At September 30, 1998, VIOC operated 391 company-owned

outlets, compared to 382 outlets in 1997 and 374 outlets in 1996. In addition, the VIOC franchising program was expanded significantly, with 183 outlets open in 1998, compared to 137 outlets in 1997 and 100 outlets in 1996.

Excluding unusual items, Valvoline's operating income amounted to \$75 million in 1997, compared to \$79 million in 1996. Gross profits from Valvoline's core lubricant business were up 13%, reflecting improved margins, while gross profits from antifreeze increased \$8 million as margins recovered from extremely depressed levels in 1996. However, these improvements were more than offset by an increase of \$5 million in Corporate expense allocations and by a reduction in gross profits from R-12. Due to cool summer weather which shortened the peak season, sales volumes of R-12 were down significantly in 1997. The used oil collection business operated profitably, while earnings from VIOC declined slightly due to higher operating expenses.

(Bar graph appears in the right margin comparing operating income from Valvoline for fiscal 1996, 1997 and 1998.)

REFINING AND MARKETING

Excluding unusual items, operating income from Refining and Marketing was \$297 million in 1998, up \$99 million from last year. Results for 1998 include the operating income of Ashland Petroleum and SuperAmerica for the December 1997 quarter prior to the formation of MAP, Ashland's 38% share of MAP's earnings for the nine months ended September 30, 1998, amortization of Ashland's excess investment in MAP, and results of certain retained refining and marketing activities. Earnings from Ashland's former refining and marketing businesses in the December 1997 quarter were up \$20 million from last year's quarter, reflecting higher refining margins, combined with a 3.2 cent a gallon improvement in retail margins. In addition, results from MAP for the nine months ended September 30, 1998, reflect a \$79 million improvement from the results achieved by Ashland Petroleum and SuperAmerica for that period last year. While this improvement resulted principally from more favorable industry conditions in 1998, a different mix of operations and captured synergies were also factors in the year to year improvement. In addition, results during the March 1997 quarter were adversely affected by heavy flooding in the Ohio Valley which limited Ashland Petroleum's ability to ship products on the river systems.

Operating income from Refining and Marketing before unusual items nearly doubled from \$101 million in 1996 to \$198 million in 1997. Principal factors leading to the improved results included better refining margins, reduced refining expenses and increased retail margins for both gasoline and merchandise. However, these improvements were partially offset by lower earnings from Scurlock Permian and an additional \$19 million allocation of Corporate expenses.

During the first half of fiscal 1997, Refining operated at near break-even levels reflecting margins which averaged \$3.89 a barrel. Crude oil costs increased rapidly in the December quarter and wholesale product prices were slow to respond. Although margins improved during the March quarter as crude oil costs softened, heavy flooding in the Ohio Valley limited Ashland's ability to ship products on the river systems. Refining margins increased dramatically in the last half of the year, averaging \$6.01 a barrel excluding LIFO inventory gains, reflecting strong gasoline and asphalt demand. In addition, refining expenses for 1997 were reduced by 25 cents a barrel, despite lower throughputs, reflecting continued efforts by Ashland Petroleum to improve its competitive position.

In other areas, results from Scurlock Permian were down \$12 million due to lower margins on crude oil sales, reflecting increased competition for the declining production in many of its gathering areas. Earnings from SuperAmerica increased \$10 million due to increased gasoline and merchandise margins. Sales volumes were also higher, reflecting an increased number of locations, but the effect was largely offset by increased operating and occupancy costs.

(Bar graph appears in the right margin comparing operating income from Refining and Marketing for fiscal 1996, 1997 and 1998.)

ARCH COAL

Ashland's equity income from Arch Coal amounted to \$25 million in 1998, compared to combined equity income of \$38 million from Arch Mineral and Ashland Coal before unusual items in 1997. Eastern coal sales declined 14% in 1998, and margins were down reflecting costs associated with the closing of certain mines, the scheduled expiration of a favorable long-term supply contract with Georgia Power, and costs related to extensive maintenance projects undertaken during this summer's shutdown for miners' vacations. In addition, the newly acquired western operations have not yet reached the level of earnings necessary to offset the incremental interest costs on the debt incurred to acquire those operations. The effects of these shortfalls, however, were partially offset by a gain on the sale of certain inactive mining assets in eastern Kentucky, which increased Ashland's equity income by \$6 million.

Combined equity income from Ashland's coal investments amounted to \$38 million in 1997 before unusual items, compared to \$22 million in 1996. Arch Mineral's contributions to such earnings were up strongly from 1996, reflecting increased production and reduced administrative and interest costs. Ashland Coal's contributions to 1997 results were also up from 1996

despite the expiration of certain higher priced sales contracts at the end of December 1995. Ashland Coal subsequently reduced its average costs per ton to record levels, enabling it to more than offset the effects of the reduced sales prices.

(Bar graph appears in the right margin comparing equity income from Arch Coal for fiscal 1996, 1997 and 1998.)

CORPORATE

Excluding unusual items, Corporate expenses were \$68 million in 1998, \$60 million in 1997 and \$96 million in 1996. Although administrative costs were down slightly in 1998, amounts allocated to divisions declined \$11 million principally due to the formation of MAP. The reduction in 1997 reflects the allocation of an additional \$41 million in costs to the segments, including \$2 million to the discontinued operations of Blazer Energy. The remaining changes over the three-year period result principally from fluctuations in incentive and deferred compensation costs.

Ashland Inc. and Consolidated Subsidiaries MANAGEMENT'S DISCUSSION AND ANALYSIS

INTEREST EXPENSE

Interest expense (net of interest income) amounted to \$130 million in 1998, \$142 million in 1997 and \$151 million in 1996. The reductions since 1996 resulted principally from the redemption of certain high interest rate debt using the proceeds from the sale of Blazer Energy during 1997.

DISCONTINUED OPERATIONS

Net income from discontinued operations (excluding the after tax gain of \$71 million on the sale of Blazer Energy's domestic operations in 1997) amounted to \$25 million in 1997 and \$75 million in 1996. Results for 1996 included an after tax gain of \$48 million from the settlement of claims against Columbia Gas Transmission involving natural gas contracts that were abrogated by Columbia in 1991.

(Bar graph appears in the left margin comparing cash flows from continuing operations for fiscal 1996, 1997 and 1998.)

FINANCIAL POSITION

LIOUIDITY

Ashland's financial position has enabled it to obtain capital for its financing needs and to maintain investment grade ratings on its senior debt of Baa2 from Moody's and BBB from Standard & Poor's. Ashland has a revolving credit agreement which expires on February 9, 2000, providing for up to \$320 million in borrowings, none of which was in use at September 30, 1998. Under a shelf registration, Ashland can also issue an additional \$220 million in medium-term notes should future opportunities or needs arise. Furthermore, Ashland has access to various uncommitted lines of credit and commercial paper markets, under which short-term notes of \$84 million were outstanding at September 30, 1998. While the revolving credit agreement contains covenants limiting new borrowings, Ashland could have increased its indebtedness (including any borrowings under that agreement) by up to \$2 billion at September 30, 1998.

Cash flows from continuing operations, a major source of Ashland's liquidity, amounted to \$366 million in 1998, \$565 million in 1997 and \$544 million in 1996. The reduction in cash flows from operations in 1998 reflects increased working capital requirements across Ashland's operating divisions and changes resulting from the formation of MAP. Since MAP is accounted for on the equity method, Ashland's share of MAP's capital expenditures are now reported as a reduction of cash flows from operations (i.e., such expenditures reduce distributions from equity affiliates). Cash flows from operations exceeded Ashland's capital requirements for net property additions and dividends since 1995 by nearly \$275 million, providing additional funds for debt repayment and acquisitions.

Property additions amounted to just over \$1 billion during the last three years and are summarized in the Information by Industry Segment on Page 61. Although the overall trend is down for that period, the reductions were within Refining and Marketing. Capital expenditures by Ashland's wholly-owned operations increased from \$161 million in 1996 to \$254 million in 1998, with growth in each of those operations. Ashland Chemical accounted for 53% of the capital expenditures (excluding Refining and Marketing and Corporate) over that three-year period, with APAC accounting for 34% and Valvoline accounting for 13%. Capital used for acquisitions (including companies acquired through the issuance of common stock) amounted to \$417 million during the last three years, of which \$199 million was invested in Ashland Chemical, \$172 million in APAC and \$28 million in Valvoline. A summary of the capital employed in Ashland's continuing operations at the end of the last three fiscal years follows.

| (In millions) | 1998 | 1997 | 1996 |
|--|---------------------------------------|--------------------------------------|--------------------------------------|
| Ashland Chemical APAC Valvoline Refining and Marketing Arch Coal | \$1,034 452 357 1,729 373 | \$ 904 273 339 1,515 353 | \$ 871 234 363 1,522 332 |
| | \$3,945 | \$3,384 | \$3,322 |

(Bar graph appears in the left margin comparing property additions for fiscal 1996, 1997 and 1998.)

Capital employed in Ashland Chemical and APAC increased during the period, as the majority of Ashland's capital budget and acquisitions were focused in these areas. Although Valvoline's capital expenditures have increased over this period, the effects were largely offset by reductions in its working capital requirements. Capital employed in Refining and Marketing increased in 1998, reflecting the purchase of leased assets associated with the formation of MAP. Despite that one-time capital infusion, however,

capital employed in Ashland's wholly-owned operations still increased from 44% of total capital employed at the end of fiscal 1996 to 47% at September 30, 1998.

(Bar graph appears in the left margin comparing capital employed for fiscal 1996, 1997 and 1998.)

Long-term borrowings provided cash flows of \$304 million during the last three years, including the issuance of \$150 million in senior notes, \$134 million of medium-term notes and \$20 million of pollution-control bonds. The proceeds from these long-term borrowings were used in part to retire \$522 million of long-term debt (scheduled maturities as well as refundings to reduce interest costs). Cash flows were supplemented as necessary by the issuance of short-term notes and commercial paper.

At September 30, 1998, working capital (excluding debt due within one year) amounted to \$592 million, compared to \$741 million at the end of fiscal 1997. Liquid assets (cash, cash equivalents and accounts receivable) amounted to 84% of current liabilities at September 30, 1998, compared to 90% at the end of fiscal 1997. The reductions principally reflect the working capital conveyed to MAP. Ashland's working capital is affected by its use of the LIFO method of inventory valuation, which valued inventories \$57 million below their replacement costs at September 30, 1998.

(Bar graph appears in the right margin comparing debt as a percent of capital employed for fiscal 1996, 1997 and 1998.)

CAPITAL RESOURCES

During 1998, Ashland's Board of Directors authorized the purchase of up to four million shares of Ashland common stock. Under this authorization, one million shares were purchased in 1998 at a cost of \$46 million. The number of shares ultimately purchased and the prices Ashland will pay for its stock are subject to periodic review by management.

At September 30, 1998, Ashland's debt level amounted to \$1.6 billion, compared to \$1.4 billion at the end of fiscal 1997. The increase reflects an aggressive acquisition program during 1998, as well as the purchase of leased assets associated with the formation of MAP. Common stockholders' equity increased by \$113 million during 1998 to \$2.1 billion, principally due to earnings of \$119 million retained in the business. Although common stock was issued for acquisitions and employee stock incentive plans, a nearly equivalent amount was repurchased. Debt as a percent of capital employed amounted to 43% at September 30, 1998, compared to 41% at the end of fiscal 1997.

During fiscal 1999, Ashland anticipates capital expenditures of approximately \$200 million. Ashland anticipates meeting its 1999 capital requirements for property additions, dividends and scheduled debt repayments of \$41 million from internally generated funds. However, external financing may be necessary to provide funds for acquisitions or purchases of common stock.

ENVIRONMENTAL MATTERS

Federal, state and local laws and regulations relating to the protection of the environment have resulted in higher operating costs and capital investments by the industries in which Ashland operates. Because of the continuing trends toward greater environmental awareness and ever increasing regulations, Ashland believes that expenditures for environmental compliance will continue to have a significant effect on its businesses. Although it cannot accurately predict how such trends will affect future operations and earnings, Ashland believes the nature and significance of its ongoing compliance costs will be comparable to those of its competitors.

Environmental reserves are subject to considerable uncertainties that affect Ashland's ability to estimate its share of the ultimate costs of required remediation efforts. Such uncertainties involve the nature and extent of contamination at each site, the extent of required cleanup efforts under existing environmental regulations, widely varying costs of alternate cleanup methods, changes in environmental regulations, the potential effect of continuing improvements in remediation technology, and the number and financial strength of other potentially responsible parties at multiparty sites.

Ashland does not believe that any liability resulting from environmental matters, after taking into consideration its insurance coverage and amounts already provided for, will have a material adverse effect on its consolidated financial position, cash flows or liquidity. However, such matters could have a material effect on results of operations in a particular quarter or fiscal year as they develop or as new issues are identified.

DERIVATIVE INSTRUMENTS

Ashland is exposed to various market risks, including changes in certain commodity prices, foreign currency rates and interest rates. To manage these natural business exposures, Ashland enters into various derivative transactions in accordance with its established policies. Ashland does not hold or issue derivative instruments for trading purposes.

Ashland selectively uses commodity futures contracts or derivatives to manage its exposure to price fluctuations for natural gas used by Ashland's manufacturing facilities. In addition, these financial products are used to hedge fixed price natural gas purchase or sales contracts entered into under Ashland's energy management program for its suppliers and customers. Ashland also uses forward exchange contracts to hedge foreign currency transaction exposures of its operations. However, the potential loss from a hypothetical 10% adverse change in commodity prices or foreign currency rates on Ashland's open commodity futures and foreign exchange contracts at September 30, 1998, would not significantly affect Ashland's consolidated financial position, results of operations or cash flows.

Ashland uses interest rate swap agreements to obtain greater access to the lower borrowing costs normally available on floating-rate debt, while minimizing refunding risk through the issuance of long-term, fixed-rate debt. Long-term debt at September 30, 1998, included \$39 million of floating-rate debt, and the interest rates on an additional \$225 million of fixed-rate debt were converted to LIBOR floating rates through unleveraged

interest rate swap agreements. As a result, Ashland's annual interest costs in 1999 will fluctuate based on short-term interest rates on \$264 million of its long-term debt outstanding at September 30, 1998, as well as on any short-term notes and commercial paper.

Ashland Inc. and Consolidated Subsidiaries MANAGEMENT'S DISCUSSION AND ANALYSIS

OUTLOOK

Ashland Chemical will continue to pursue growth through internal efforts and selective acquisitions. The Company will emphasize integrated products and services, targeting its North American customers and a growing international sales base with existing offerings and extensions into untapped markets. With market globalization favoring producers that have a worldwide presence, investments in acquisitions will also continue as attractive opportunities to add volume, technologies or market coverage are identified.

APAC will pursue growth through geographic expansion, enhanced materials production capabilities and product line extensions, such as concrete paving and greater site development services. APAC's construction backlog amounted to a record year end level of \$838 million at September 30, 1998. Such backlog includes increases in both the public and private sectors, and is expected to contain margins comparable to those included in last year's backlog. The 1998 highway funding reauthorization package increased funding for highways by \$52 billion over a six-year period. More importantly, the states in which APAC operates should see an average increase in annual federal funding of 59% or \$3.3 billion, based on current estimates.

(Bar graph appears in the left margin comparing construction backlog for fiscal 1996, 1997 and 1998.)

Valvoline will leverage its Valvoline brand franchise to related premium "below-the-hood" products, while developing the Eagle One brand into a master brand for "above-the-hood" products. Domestic sales volumes of higher-margin packaged lubricants serving the "do-it-yourself" market are expected to continue to give ground to lower-margin bulk sales to the "do-it-for-me" market. However, sales of automotive chemicals and appearance products, as well as international sales of lubricants are expected to provide continued growth opportunities. VIOC's future growth will focus principally on expanding the number of franchised rather than company-operated outlets.

Although margins are expected to remain volatile, key external factors look promising for the refining and marketing industry. Demand for petroleum products is expected to grow modestly, due to a leveling of fuel efficiency in the passenger car fleet, increasing sales of light-truck and sport-utility vehicles which average fewer miles per gallon than passenger cars, and an increasing number of vehicle miles traveled. Refinery utilization rates are strong, reflecting the increased demand, which should be beneficial for MAP's refining margins. MAP is also the largest U. S. supplier of asphalt, so increased funding for highway construction also benefits MAP.

MAP's initial estimate of annual efficiency savings was \$200 million before taxes, which it expected to realize by its fourth year of operation. MAP now expects to realize more than \$130 million in annual, repeatable pretax savings in calendar 1998 and another \$100 million in calendar 1999. Efficiencies have been identified in personnel, procurement, crude oil purchases and other areas.

Stricter environmental regulations and increasing demand for electricity and the low-sulfur coal to generate it should benefit Arch Coal. Arch Coal's strong cash flow provides the financial strength to support continued debt reductions, operational improvements and acquisitions of attractive properties.

Permits required to conduct operations at certain of Arch Coal's mines in West Virginia are currently being challenged in third party suits against the agencies which issue those permits. Arch is vigorously opposing these claims and the affected subsidiaries have intervened in these lawsuits in support of the related agencies. The major focus of these actions relates to the approval of "valley fills," the large, engineered works into which excess earth and rock extracted during surface mining is placed. Modification of existing or pending permits to restrict or eliminate the use of valley fills would have an adverse effect on Arch.

YEAR 2000 READINESS

Ashland, like most other companies, is faced with the Year 2000 issue and began developing plans in 1994 to address the possible exposures. Project teams are responsible for coordinating the assessment, remediation and testing of the necessary modifications to Ashland's computer applications, including both its internal information systems and embedded systems, as well as assessing the Year 2000 readiness of its critical suppliers and developing contingency plans. The team's progress is regularly monitored by Ashland's senior management and periodically reported to the Audit Committee of Ashland's Board of Directors.

Ashland has completed the assessment phase related to its internal information systems, and is resolving identified issues through system modifications or replacement. Although testing will continue, Ashland believes that about 75% of its critical systems are currently Year 2000 compliant, and that the remaining critical systems will be compliant by April 1999.

Ashland is also $% \left(1\right) =\left(1\right) \left(1\right) +\left(1\right) \left(1\right) +\left(1\right) \left(1\right) +\left(1\right) \left(1\right) \left(1\right) +\left$

its manufacturing systems, laboratory processes, security systems and heating and air conditioning. Ashland expects to complete this assessment by March 1999, and remediate or replace non-compliant embedded systems as necessary by June 1999. The quality of the responses received from the manufacturers of such equipment, the estimated effect of the individual system on Ashland, and the ability of Ashland to perform meaningful tests will determine whether independent testing of embedded systems will be conducted.

Formal communications have been initiated with critical vendors to assess the potential exposure to Ashland from their failure to remediate their own Year 2000 issues. A failure by any of these vendors could become a significant challenge to Ashland's ability to operate its facilities at affected locations. Vendors contacted include Ashland's suppliers, financial institutions and companies providing utilities (electric, telephone and water), and alternate providers of products and services will be established, if deemed necessary. Although Ashland has no means of ensuring the Year 2000 readiness of such vendors, it will continue to gather information and

monitor their compliance. Based on the representations provided by these vendors to date, Ashland has no reason to believe that a failure of this nature might occur.

Ashland is also developing contingency plans related to the Year 2000 issue, addressing various scenarios and alternatives. Among other things, such plans will likely include replacing electronic applications with manual processes, identifying alternate vendors, adjusting staffing requirements, and increasing raw material inventory levels, as deemed necessary. Preliminary plans are expected to be completed by March 1999, and will be regularly updated as current issues develop or new issues are identified.

Although a full assessment has not yet been completed, Ashland estimates that its remaining costs related to Year 2000 issues will not exceed \$15 million. Such amount is based on various assumptions, including the expected availability and costs of internal and external resources and the complexity of the necessary changes. Such estimate does not include any costs of new systems for which the principal justification is improved business functionality, rather than Year 2000 compliance. Since Ashland's Year 2000 compliance program was initiated several years ago and has been integrated with other system enhancements, Ashland's total costs of remediating Year 2000 issues are not readily discernible.

Ashland believes it has an effective program to resolve significant Year 2000 issues in a timely manner. However, critical phases of that program have not yet been completed and certain exposures are outside Ashland's direct control. If Ashland is unsuccessful in identifying or remediating Year 2000 issues in its critical systems, is affected by critical vendors not being Year 2000 ready, or is affected by general economic disruptions resulting from Year 2000 issues, its consolidated financial position or results of operations could be materially adversely affected.

MAP and Arch Coal also have prepared their own programs to deal with Year 2000 issues. Arch Coal's program is outlined in the Management's Discussion and Analysis section of its Quarterly Report on Form 10-Q for the quarter ended September 30, 1998. MAP's program is covered in the Management's Discussion and Analysis section for the Marathon Group in USX Corporation's Quarterly Report on Form 10-Q for the quarter ended September 30, 1998. Both of these documents are on file with the Securities and Exchange Commission.

EFFECTS OF INFLATION AND CHANGING PRICES

Ashland's financial statements are prepared on the historical cost method of accounting and, as a result, do not reflect changes in the dollar's purchasing power. Although annual inflation rates have been low in recent years, Ashland's results are still affected by the cumulative inflationary trend from prior years.

In the capital-intensive industries in which Ashland operates, replacement costs for its properties would generally exceed their historical costs. Accordingly, depreciation, depletion and amortization expense would be greater if it were based on current replacement costs. However, since replacement facilities would reflect technological improvements and changes in business strategies, such facilities would be expected to be more productive than existing facilities, mitigating the increased expense.

Ashland uses the last-in, first-out (LIFO) method to value a substantial portion of its inventories to provide a better matching of revenues with current costs. However, LIFO values such inventories below their replacement costs.

Monetary assets (such as cash, cash equivalents and accounts receivable) lose purchasing power as a result of inflation, while monetary liabilities (such as accounts payable and indebtedness) result in a gain, because they can be settled with dollars of diminished purchasing power. Ashland's monetary liabilities exceed its monetary assets, which results in net purchasing power gains and provides a hedge against the effects of future inflation.

FORWARD-LOOKING STATEMENTS

Management's Discussion and Analysis contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, including various information within the Capital Resources, Derivative Instruments, Outlook and Year 2000 Readiness sections. Although Ashland believes that its expectations are based on reasonable assumptions, it cannot assure that the expectations contained in such statements will be achieved. Important factors which could cause actual results to differ materially from those contained in such statements are discussed under Risks and Uncertainties in Note A to the Consolidated Financial Statements. Other factors and risks affecting Ashland's revenues and operations are contained in Ashland's Form 10-K for the fiscal year ended September 30, 1998, which is on file with the Securities and Exchange Commission.

| Sales and operating revenues (including excise taxes) \$6,534 \$12,833 \$12,313 \$12,000 | (In millions except per share data) | 1998 | 1997 | 1996 |
|---|--|-----------|---|----------|
| Sales and operating revenues (including excise taxes) \$6,534 \$12,833 \$12,813 \$12,913 | REVENUES | | | |
| Other income 70 89 66 COSTS AND EXPENSES 6,933 12,961 12,412 COSTS of sales and operating expenses 5,299 9,810 9,512 Excise taxes on products and merchandise - 992 985 Selling, general and administrative expenses 1,066 1,359 1,257 Depreciation, depletion and amortization 181 348 299 OPERATING INCOME 447 461 359 Interest expense (net of interest income) (136) (142) (151) INCOME FROM CONTINUING OPERATIONS BEFORE INCOME TAXES 317 319 208 Income taxes - Note E (130) (142) (151) INCOME FROM CONTINUING OPERATIONS 203 192 136 Income from discontinued operations (net of income taxes) - Note B - 25 75 Gain on sale of discontinued operations (net of income taxes) - Note B - 25 75 Gain on sale of discontinued operations 203 279 211 Dividends on convertible preferred stock - < | 11=1=11=== | \$6,534 | \$12,833 | \$12,313 |
| COSTS AND EXPENSES | | | | |
| COSTS AND EXPENSES | Other income | 70 | 89 | 66 |
| Cost of sales and operating expenses 5, 299 9,810 9,512 Excise taxes on products and merchandise - 902 985 Selling, general and administrative expenses 1,006 1,350 1,257 Depreciation, depletion and amortization 6,466 12,500 12,653 OPERATING INCOME 447 461 359 Interest expense (net of interest income) (130) (142) (151) INCOME FROM CONTINUING OPERATIONS BEFORE INCOME TAXES 317 319 208 Income taxes - Note E (114) (127) (72) INCOME FROM CONTINUING OPERATIONS 203 192 136 Income from discontinued operations (net of income taxes) - Note B 25 75 Gain on sale of discontinued operations (net of income taxes) - Note B 203 288 211 Extraordinary loss on early retirement of debt (net of income taxes) - Note F 203 279 211 Income from continuing operations 2263 279 192 EANINGS PER SHARE - Note A 25 (9) 192 EANINGS PER SHARE - | | 6,933 | 12,961 | 12,412 |
| Excise taxes on products and merchandise 985 985 985 986 1,856 1,3550 1,257 985 981 986 1,856 1,3550 1,257 985 9 | | F 200 | 0.010 | 0 512 |
| Selling, general and administrative expenses 1,006 1,350 1,257 Depreciation, depletion and amortization 181 348 299 Depreciation, depletion and amortization 6,486 12,500 12,603 OPERATING INCOME 447 461 359 Interest expense (net of interest income) 317 319 208 Income FROM CONTINUING OPERATIONS BEFORE INCOME TAXES 317 319 208 Income from discontinued operations (net of income taxes) - Note B 203 192 136 Income from discontinued operations (net of income taxes) - Note B 2 25 75 Sating and administrative dependence of income taxes) - Note B 2 203 192 136 Income from discontinued operations (net of income taxes) - Note B 2 203 288 211 Extraordinary loss on early retirement of debt (net of income taxes) - Note F 2 (9) -1 NET INCOME 203 279 211 Dividends on convertible preferred stock 2 203 279 121 Income from continuing operations | | 5, 299 | , | , |
| Depreciation, depletion and amortization 181 348 299 295 | | 1 006 | | |
| Perating Income 12,500 12,053 | | | | |
| NET INCOME BEFORE EXTRAORDINARY LOSS 203 288 211 | | | | |
| Interest expense (net of interest income) | | 6,486 | 12,500 | 12,053 |
| INCOME FROM CONTINUING OPERATIONS BEFORE INCOME TAXES 317 319 208 1000 (114) (127) (72) (| OPERATING INCOME | 447 | 461 | 359 |
| INCOME FROM CONTINUING OPERATIONS BEFORE INCOME TAXES 317 319 208 Income taxes - Note E | | (130) | (142) | (151) |
| INCOME FROM CONTINUING OPERATIONS 203 192 136 136 | | 317 | 319 | 208 |
| Income from discontinued operations (net of income taxes) - Note B Gain on sale of discontinued operations (net of income taxes) - Note B Gain on sale of discontinued operations (net of income taxes) - Note B Gain on sale of discontinued operations (net of income taxes) - Note B Gain on sale of discontinued operations (net of income taxes) - Note B Gain on sale of discontinued operations (net of income taxes) - Note B Gain on sale of discontinued operations (net of income taxes) - Note B Gain on sale of discontinued operations (net of income taxes) - Note B Gain on sale of discontinued operations (net of income taxes) - Note B Gain on sale of discontinued operations (net of income taxes) - Note B Gain on sale of discontinued operations (net of income taxes) - Note B Gain on sale of discontinued operations (net of income taxes) - Note income (net of income taxes) - Note B Gain on sale of discontinued operations (net of income taxes) - Note income (net of income taxes) - Note B Gain on sale of discontinued operations (net of income taxes) - Note income (net of income taxes) - Note B Gain on sale of discontinued operations (net of income taxes) - Note B Gain on sale of discontinued operations (net of income taxes) - Note B Gain on sale of discontinued operations (net of income taxes) - Note B Gain on sale of discontinued operations (net of income taxes) - Note B Gain on sale of discontinued operations (net of income taxes) - Note B Gain on sale of discontinued operations (net of income taxes) - Note B Gain on sale of discontinued operations (net of income taxes) - Note B Gain on sale of discontinued operations (net of income taxes) - Note B Gain on sale of discontinued operations (net of income taxes) - Note B Gain on sale of discontinued operations (net of income taxes) - Note B Gain on sale of discontinued operations (net of income taxes) - Note B Gain on sale of discontinued operations (net of income taxes) - Note B Gain on sale of discontinued operations (net of income taxes) - Note B Gain on sale of discont | Income taxes - Note E | (114) | (127) | (72) |
| Income from discontinued operations (net of income taxes) - Note B | INCOME FROM CONTINUING OPERATIONS | 203 | 192 | 136 |
| Gain on sale of discontinued operations (net of income taxes) - Note B - 71 | | | | |
| INCOME BEFORE EXTRAORDINARY LOSS 203 288 211 Extraordinary loss on early retirement of debt (net of income taxes) - Note F | Gain on sale of discontinued operations (net of income taxes) - Note B | - | 71 | - |
| Extraordinary loss on early retirement of debt (net of income taxes) - Note F - (9) - NET INCOME Dividends on convertible preferred stock - (9) (19) INCOME AVAILABLE TO COMMON SHARES \$ 203 \$ 270 \$ 192 | | 203 | 288 | 211 |
| Dividends on convertible preferred stock | | - | (9) | - |
| Dividends on convertible preferred stock | NET INCOME | 203 | 279 | 211 |
| INCOME AVAILABLE TO COMMON SHARES \$ 203 \$ 270 \$ 192 | | - | (9) | (19) |
| EARNINGS PER SHARE - Note A Basic Income from continuing operations Income from discontinued operations Gain on sale of discontinued operations Extraordinary loss Net income Income from continuing operations Income from continuing operations \$ 2.68 \$ 2.61 \$ 1.82 \$ 1.88 \$ 1.18 \$ 1.80 \$ | INCOME AVAILABLE TO COMMON SHARES | \$ 203 | \$ 270 | \$ 192 |
| Income from continuing operations \$ 2.68 \$ 2.61 \$ 1.82 Income from discontinued operations - .36 1.18 Gain on sale of discontinued operations - 1.02 - Extraordinary loss - (.13) - Net income \$ 2.68 \$ 3.86 \$ 3.00 Diluted Income from continuing operations \$ 2.63 \$ 2.51 \$ 1.80 The state of the | | ========= | ======================================= | |
| Income from discontinued operations | Basic | | | |
| Gain on sale of discontinued operations - 1.02 - Extraordinary loss - (.13) - Net income \$ 2.68 \$ 3.86 \$ 3.00 Diluted Income from continuing operations \$ 2.63 \$ 2.51 \$ 1.80 | | \$ 2.68 | T | \$ 1.82 |
| Extraordinary loss - (.13) - Net income \$ 2.68 \$ 3.86 \$ 3.00 Diluted | | - | | 1.18 |
| Net income \$ 2.68 \$ 3.86 \$ 3.00 Diluted | | - | | - |
| Diluted Income from continuing operations \$ 2.63 \$ 2.51 \$ 1.80 | Extraordinary loss | - | (.13) | - |
| Income from continuing operations \$ 2.63 \$ 2.51 \$ 1.80 | Net income | \$ 2.68 | \$ 3.86 | \$ 3.00 |
| | | | A 0.54 | |
| | | \$ 2.63 | 4 | 4 |
| Income from discontinued operations33 1.16 Gain on sale of discontinued operations92 - | | - | | 1.10 |
| Extraordinary loss - (.12) - | | - | | - |
| - (.12) - | Exercises definitly 1000 | | (.44) | - |
| Net income \$ 2.63 \$ 3.64 \$ 2.96 | Net income | \$ 2.63 | \$ 3.64 | \$ 2.96 |

| (In millions) | 1998 | 1997 |
|--|--------------|----------|
| | | ======== |
| SSETS | | |
| CURRENT ASSETS | | |
| Cash and cash equivalents | \$ 34 | \$ 250 |
| Accounts receivable (less allowances for doubtful accounts of | | |
| \$19 million in 1998 and \$25 million in 1997) | 1,110 | 1,585 |
| nventories - Note A | 440 | 660 |
| eferred income taxes | 104 | 103 |
| ther current assets | 140 | 122 |
| | 1,828 | 2,720 |
| NVESTMENTS AND OTHER ASSETS | | |
| investment in MAP - Note D | 2,102 | - |
| nvestment in Arch Coal - Note D | 422 | 403 |
| Cost in excess of net assets of companies acquired (less accumulated | | |
| amortization of \$65 million in 1998 and \$70 million in 1997) | 207 | 120 |
| Other noncurrent assets | 362 | 541 |
| | 3,093 | 1,064 |
| PROPERTY, PLANT AND EQUIPMENT | | |
| Cost | | |
| Ashland Chemical | 1,049 | 904 |
| APAC | 809 | 671 |
| Valvoline | 354 | 328 |
| Refining and Marketing | - | 3,497 |
| Corporate | 201 | 167 |
| | 2,413 | 5,567 |
| accumulated depreciation, depletion and amortization | (1,252) | (2,889 |
| | 1,161 | 2,678 |
| | \$6,082 | \$6,462 |

| (In millions) | 1998 | 1997 |
|---|---------|---------|
| IABILITIES AND STOCKHOLDERS' EQUITY | | |
| CURRENT LIABILITIES | | |
| Debt due within one year | | |
| Notes payable to financial institutions | \$ 84 | \$ - |
| Current portion of long-term debt | 41 | 49 |
| Trade and other payables | 1,199 | 1,867 |
| Income taxes | 37 | 112 |
| | 1,361 | 2,028 |
| NONCURRENT LIABILITIES | | |
| Long-term debt (less current portion) - Notes F and G | 1,507 | 1,356 |
| Employee benefit obligations - Note N | 458 | 539 |
| Reserves of captive insurance companies | 165 | 161 |
| Other long-term liabilities and deferred credits Commitments and contingencies - Notes G, H and K | 454 | 354 |
| | 2,584 | 2,410 |
| STOCKHOLDERS' EQUITY - Notes F, I and J | | |
| Preferred stock, no par value, 30 million shares authorized | | |
| Common stockholders' equity | | |
| Common stock, par value \$1.00 per share | | |
| Authorized - 300 million shares | | |
| Issued - 76 million shares in 1998 and 75 million | | |
| shares in 1997 | 76 | 75 |
| Paid-in capital | 602 | 605 |
| Retained earnings | 1,501 | 1,379 |
| Accumulated other comprehensive income | (42) | (35) |
| | 2,137 | 2,024 |
| | \$6,082 | \$6,462 |

| (In millions) | Preferred stock | Common stock | Paid-in capital | Retained earnings | Loan to LESOP | Accumulated other comprehensive income | Total |
|---|--------------------|-----------------|-------------------------|--------------------------------|------------------|---|--------------------------------|
| BALANCE AT OCTOBER 1, 1995 Total comprehensive income(F1) Preferred stock cash dividends Common stock cash dividends, \$1.10 a share Issued common stock under | \$293 | \$64 | \$255 | \$1,064 211 (19) (70) | \$(11) | \$(10) 1 | \$1,655 212 (19) (70) |
| Stock incentive plans Employee savings plan LESOP loan repayment | | | 19 6 | | 11 | | 19 6 11 |
| BALANCE AT SEPTEMBER 30, 1996 Total comprehensive income(F1) Preferred stock cash dividends Common stock cash dividends, \$1.10 a share Issued common stock under | 293 | 64 | 280 | 1,186 279 (9) (77) | - | (9) (26) | 1,814 253 (9) (77) |
| Preferred stock conversion Stock incentive plans Employee savings plan Preferred stock redemption Other changes | (290) | 9 2 | 281 44 1 (1) | | | | 46 1 (3) (1) |
| BALANCE AT SEPTEMBER 30, 1997 Total comprehensive income(F1) Common stock cash dividends, \$1.10 a share Issued common stock under | - | 75 | 605 | 1,379 203 (84) | - | (35) (7) | 2,024 196 (84) |
| Stock incentive plans Acquisitions of other companies Repurchase of common stock Other changes | | 1 1 (1) | 15 29 (45) (2) | 3 | | | 16 33 (46) (2) |
| BALANCE AT SEPTEMBER 30, 1998 | \$ - ======= | \$76 | \$602 | \$1,501 ======= | \$ - ======== | \$(42) | \$2,137 ====== |

 $\ensuremath{[FN]}$ (F1) Reconciliations of net income to total comprehensive income follow.

| (In millions) | 1998 | 1997 | 1996 |
|---|-------|-------|-------|
| | | | |
| Net income | \$203 | \$279 | \$211 |
| Minimum pension liability adjustment | (6) | (4) | 5 |
| Related tax benefit (expense) | 2 | 2 | (2) |
| Unrealized translation adjustments | (7) | (27) | (1) |
| Related tax benefit | 1 | - | - |
| Unrealized gains (losses) on securities | 8 | 5 | (3) |
| Related tax benefit (expense) | (3) | (2) | 1 |
| Losses (gains) on securities included in net income | (3) | · - · | 1 |
| Related tax expense | 1 | - | - |
| Total comprehensive income | \$196 | \$253 | \$212 |

At September 30, 1998, accumulated other comprehensive income was a loss of \$42 million comprised of net unrealized translation losses of \$28 million, a minimum pension liability of \$18 million and unrealized gains on securities of \$4 million.

| (In millions) | 1998 | 1997 | 1996 |
|---|---|---|--------------|
| CASH FLOWS FROM CONTINUING OPERATIONS | | | |
| Income from continuing operations | \$203 | \$192 | \$136 |
| Expense (income) not affecting cash | Ψ203 | Ψ192 | Ψ130 |
| Depreciation, depletion and amortization | 181 | 348 | 299 |
| Deferred income taxes | 60 | 33 | (9) |
| Equity income from affiliates | (329) | (39) | (33) |
| Distributions from equity affiliates | 252 | 20 | 12 |
| Other items | (6) | - | - |
| Change in operating assets and liabilities(F1) | 5 | 11 | 139 |
| | 366 | 565 | 544 |
| CASH FLOWS FROM FINANCING | | | |
| Proceeds from issuance of long-term debt | 150 | 87 | 67 |
| Proceeds from issuance of capital stock | 10 | 35 | 15 |
| Repayment of long-term debt | (53) | (395) | (74) |
| Repurchase of capital stock | (46) | (3) | (04) |
| Increase (decrease) in short-term debt | 81 | (68) | (84) (89) |
| Dividends paid | (84) | (86) | (89) |
| CACH FLORIC FROM TANGETMENT | 58 | (430) | (165) |
| CASH FLOWS FROM INVESTMENT Additions to property, plant and equipment | (274) | (356) | (372) |
| Purchase of leased assets associated with the formation of MAP | (254) | (330) | (372) |
| Purchase of operations - net of cash acquired | (194) | (79) | (83) |
| Investment purchases(F2) | (215) | (248) | (455) |
| Investment sales and maturities(F2) | 308 | 216 | 490 |
| Other - net | 44 | 27 | 25 |
| | (585) | (440) | (395) |
| CASH USED BY CONTINUING OPERATIONS | (161) | (305) | (16) |
| Cash provided (used) by discontinued operations - Note B | `(55) | `485´ | `35´ |
| INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS | (216) | 180 | 19 |
| Cash and cash equivalents - beginning of year | 250 | 70 | 51 |
| CASH AND CASH EQUIVALENTS - END OF YEAR | \$ 34 | \$250 | \$ 70 |
| DECREASE (INCREASE) IN OPERATING ASSETS(F1) | ======================================= | ======================================= | ========== |
| Accounts receivable | \$ (54) | \$(16) | \$(60) |
| Inventories | (21) | 30 | (4) |
| Deferred income taxes | (16) | - | ` 5´ |
| Other current assets | (36) | 6 | (12) |
| Investments and other assets | (19) | (5) | 3 |
| INCREASE (DECREASE) IN OPERATING LIABILITIES(F1) | | | |
| Trade and other payables | 33 | (117) | 228 |
| Income taxes | (2) | 31 | 5 |
| Noncurrent liabilities | 120 | 82 | (26) |
| CHANGE IN OPERATING ASSETS AND LIABILITIES | \$ 5 | \$ 11 | \$139 |
| | | · | |

[[]FN]
(F1) Excludes changes resulting from operations acquired or sold.
(F2) Represents primarily investment transactions of captive insurance companies.

NOTE A - SIGNIFICANT ACCOUNTING POLICIES

BASIS OF PRESENTATION

The consolidated financial statements include the accounts of Ashland and its majority-owned subsidiaries, except Arch Coal, Inc. Investments in joint ventures, 20% to 50% owned affiliates and Arch Coal are accounted for on the equity method. Ashland Coal, Inc. and Arch Mineral Corporation merged on July 1, 1997, to form Arch Coal, Inc., in which Ashland has a 55% ownership interest. In 1998, Ashland adopted Emerging Issues Task Force Issue No. 96-16 (EITF 96-16), "Investor's Accounting for an Investee When the Investor Has a Majority of the Voting Interest but the Minority Shareholder or Shareholders Have Certain Approval or Veto Rights." The adoption of EITF 96-16 resulted in a change in the method of accounting for Ashland's investment in Arch Coal from consolidation to the equity method. As a result of the accounting change and the restatement of prior periods for comparison purposes, all of Ashland's coal investments are now accounted for on the equity method for all periods presented. The change had no effect on Ashland's net income or common stockholders' equity, but reduced its revenues, costs, assets and liabilities, and changed certain components of its cash flow.

Effective January 1, 1998, Ashland and Marathon Oil Company formed Marathon Ashland Petroleum LLC (MAP), combining the major elements of the refining, marketing and transportation operations of the two companies. Marathon has a 62% interest in MAP and Ashland holds a 38% interest, which is accounted for using the equity method of accounting. For comparison purposes, Ashland changed its method of accounting for the businesses conveyed to MAP to the equity method effective October 1, 1997, the beginning of Ashland's 1998 fiscal year. Restatement of financial statements for years prior to 1998 is not permitted under generally accepted accounting principles. As a result, 1998 is not comparable to 1997 and 1996. The change had no effect on Ashland's net income or common stockholders' equity, but reduced its revenues, costs, assets and liabilities, and changed certain components of its cash flow.

RISKS AND UNCERTAINTIES

The preparation of Ashland's consolidated financial statements in conformity with generally accepted accounting principles requires Ashland's management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, and the disclosures of contingent assets and liabilities. Significant items subject to such estimates and assumptions include the carrying value of long-lived assets, inventory and receivable valuation allowances, environmental reserves, employee benefit obligations, income recognized under construction contracts, and the ultimate realization of deferred tax assets. Actual results could differ from the estimates and assumptions used.

Ashland's results, including those of MAP and Arch Coal, are affected by domestic and international economic, political, legislative, regulatory and legal actions, as well as weather conditions. Economic conditions, such as recessionary trends, inflation, interest and monetary exchange rates, and changes in the prices of crude oil, petroleum products and petrochemicals, can have a significant effect on operations. Political actions may include changes in the policies of the Organization of Petroleum Exporting Countries or other developments involving or affecting oil-producing countries, including military conflict, embargoes, internal instability or actions or reactions of the United States government in anticipation of, or in response to, such actions. While Ashland maintains reserves for anticipated liabilities and carries various levels of insurance, Ashland could be affected by civil, criminal, regulatory or administrative actions, claims or proceedings relating to the environment or other matters. In addition, climate and weather can significantly affect Ashland's results from several of its operations, such as its construction activities, MAP's heating oil business and coal sales and production of Arch Coal.

INVENTORIES

| | \$440 | \$660 |
|---|---|---|
| Excess of replacement costs over LIFO carrying values | (57) | (416) |
| Materials and supplies | 9 | 38 |
| Other products | 88 | 131 |
| Crude oil | - | 277 |
| Petroleum products | 48 | 289 |
| Chemicals | \$352 | \$341 |
| ======================================= | ======================================= | ======================================= |
| (In millions) | 1998 | 1997 |

Chemicals, petroleum products, crude oil and other products with a replacement cost of \$285 million at September 30, 1998, and \$751 million at September 30, 1997, are valued using the last-in, first-out (LIFO) method. The remaining inventories are stated generally at the lower of cost (using the first-in, first-out [FIFO] or average cost method) or market.

Ashland decreased certain LIFO inventories in 1997 for operating reasons. Cost of sales and operating expenses include costs for these inventories based on prior years' LIFO carrying values which were less than current replacement costs. As a result of LIFO inventory

liquidations, net income was increased by \$7 million (\$.09 per share) in 1997. The effects of LIFO inventory liquidations during 1998 and 1996 were not significant.

LONG-LIVED ASSETS

The cost of plant and equipment is principally depreciated by the straight-line method over the estimated useful lives of the assets. Costs in excess of net assets of companies acquired are amortized by the straight-line method over periods generally ranging from 10 to 40 years, with an average remaining life of 12 years. Long-lived assets with recorded values that are not expected to be recovered through future cash flows are written down to current fair value, which is generally determined from estimated discounted future net cash flows (assets held for use) or net realizable value (assets held for sale).

ENVIRONMENTAL COSTS

Accruals for environmental costs are recognized when it is probable that a liability has been incurred and the amount of that liability can be reasonably estimated. Such costs are charged to expense if they relate to the remediation of conditions caused by past operations or are not expected to mitigate or prevent contamination from future operations. Accruals are recorded at undiscounted amounts based on experience, assessments and current technology without regard to any third-party recoveries and are regularly adjusted as environmental assessments and remediation efforts proceed.

FARNINGS PER SHARE

During 1998, Ashland adopted Financial Accounting Standards Board Statement No. 128 (FAS 128), "Earnings per Share." FAS 128 replaced the previously reported primary and fully diluted earnings per share (EPS) with basic and diluted EPS. Unlike primary EPS, basic EPS excludes any dilutive effects of options and convertible securities. Diluted EPS is very similar to the previously reported fully diluted EPS. EPS amounts for all periods have been presented, and where necessary, restated to conform to the FAS 128 requirements. The following table sets forth the computation of basic and diluted EPS from continuing operations.

| (In millions except per share data) | 1998 | 1997 ========== | 1996 |
|--|---|--------------------|-------------------|
| NUMERATOR | | | |
| Income from continuing operations Preferred stock dividends | \$ 203 - | \$ 192 (9) | \$ 136 (19) |
| Numerator for basic EPS - Income available to common shares Effect of dilutive securities | 203 | 183 | 117 |
| Dividends on convertible preferred stock Interest on convertible debentures (net of income taxes) | - - | 9 4 | - - |
| Numerator for diluted EPS - Income available to common shares after assumed conversions | \$ 203 | \$ 196 | \$ 117 |
| DENOMINATOR | ======================================= | =========== | ========= |
| Denominator for basic EPS - Weighted average common shares outstanding Common shares issuable upon | 76 | 70 | 64 |
| Exercise of stock options Conversion of debentures | 1 - | 2 2 | 1 - |
| Conversion of preferred stock | - | 4 | - |
| Denominator for diluted EPS - Adjusted weighted average shares and assumed conversions | 77 | 78 | 65 |
| BASIC EPS FROM CONTINUING OPERATIONS DILUTED EPS FROM CONTINUING OPERATIONS | \$2.68 \$2.63 | \$2.61 \$2.51 | \$1.82 \$1.80 |

DERIVATIVE INSTRUMENTS

Ashland selectively uses commodity futures contracts or derivatives to manage its exposure to price fluctuations for natural gas used by Ashland's manufacturing facilities. In addition, these financial products are used to hedge fixed price natural gas purchase or sales contracts entered into under Ashland's energy management program for its suppliers and customers. Realized gains and losses on these contracts are included in cost of sales in the original contract month, with amounts paid or received on early terminations deferred on the balance sheet in other current assets or trade and other payables (the deferral method).

Ashland uses forward exchange contracts to hedge foreign currency transaction exposures of its operations. These contracts are marked-to-market each month and included in trade and other payables, with the offsetting gain or loss included in other income (the fair value method).

Ashland uses interest rate swap agreements to obtain greater access to the lower borrowing costs normally available on floating-rate debt, while minimizing refunding risk through the issuance of long-term, fixed-rate debt. Each interest rate swap agreement is designated

NOTE A - SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

DERIVATIVE INSTRUMENTS (CONTINUED)

with all or a portion of the principal balance and term of a specific debt obligation. These agreements involve the exchange of amounts based on a fixed interest rate for amounts based on variable interest rates over the life of the agreement, without an exchange of the notional amount upon which the payments are based. The differential to be paid or received as interest rates change is accrued and recognized as an adjustment of interest expense (the accrual method). The related amount payable to or receivable from counterparties is included in trade and other payables. The fair values of the swap agreements are not recognized in the financial statements. Gains and losses on terminations of interest rate swap agreements are deferred on the balance sheet (in other long-term liabilities) and amortized as an adjustment to interest expense over the remaining term of the original contract life of the terminated swap agreement.

STOCK INCENTIVE PLANS

These financial statements include the disclosure requirements of Financial Accounting Standards Board Statement No. 123 (FAS 123), "Accounting for Stock-Based Compensation." With respect to accounting for its stock options, as permitted under FAS 123, Ashland has retained the intrinsic value method prescribed by Accounting Principles Board Opinion No. 25 (APB 25), "Accounting for Stock Issued to Employees," and related Interpretations (see Note J).

OTHER

Cash equivalents include highly liquid investments maturing within three months after purchase. Investments of captive insurance companies (primarily foreign corporate and government debt obligations) are carried at market value plus accrued interest.

Income related to construction contracts is generally recognized by the units-of-production method, which is a variation of the percentage-of-completion method. Any anticipated losses on such contracts are charged against operations as soon as such losses are estimable.

Research and development costs are expensed as incurred (\$28 million in 1998, \$29 million in 1997 and \$28 million in 1996).

Certain prior year amounts have been reclassified in the consolidated financial statements and accompanying notes to conform with 1998 classifications.

NOTE B - DISCONTINUED OPERATIONS

On July 1, 1997, Ashland sold the domestic exploration and production operations of Blazer Energy Corporation, realizing cash proceeds of \$566 million. The sale resulted in a pretax gain of \$138 million which, net of \$67 million of income taxes, produced a gain on sale of discontinued operations of \$71 million. On May 6, 1998, Ashland completed its withdrawal from the exploration business through the sale of its exploration and production operations in Nigeria with no significant gain or loss. Components of amounts reflected in the income statements, balance sheets and cash flow statements related to these discontinued operations are presented in the following table.

| (In millions) | 1998 | 1997 | 1996 |
|---|--------------------------|----------------------------------|--------------------|
| INCOME STATEMENT DATA Revenues Costs and expenses | \$ - - | \$240 (215) | \$320(F1) (226) |
| Operating income Income tax expense | - - - | 25 - | 94 (19) |
| Income from discontinued operations | \$ - | \$ 25 | \$ 75(F1) |
| BALANCE SHEET DATA Current assets Investments and other assets Property, plant and equipment - net Current liabilities Noncurrent liabilities | \$ - - - - - | \$ 59 1 57 (41) (58) | |
| Net assets of discontinued operations held for sale (other noncurrent assets) | \$ - | \$ 18 | |
| CASH FLOW DATA Cash flows from operations Cash flows from investment (including sales proceeds) | \$ (81) 26 | \$(41) 526 | \$115 (80) |
| Cash provided (used) by discontinued operations | \$ (55) | \$485 | \$ 35 |

NOTE C - INFORMATION BY INDUSTRY SEGMENT

Ashland's operations are conducted primarily in the United States and are managed along industry segments, which include Ashland Chemical, APAC, Valvoline, Refining and Marketing, and Arch Coal. Information by industry segment is shown on Pages 60 and 61.

Ashland Chemical distributes industrial chemicals, solvents, thermoplastics and resins, fiberglass materials and fine ingredients. Ashland Chemical also manufactures a wide variety of specialty chemicals and certain petrochemicals. Major specialty chemicals include foundry products, water treatment and marine service chemicals, specialty polymers and adhesives, unsaturated polyester resins, and high-purity electronic and laboratory chemicals. Ashland Chemical's petrochemicals division manufactures and markets maleic anhydride and methanol. Marketing of the petrochemicals manufactured by Ashland Petroleum (now MAP) was transferred to Refining and Marketing in fiscal 1998. Prior year industry segment information has been restated to reflect this change.

The APAC group of companies performs contract construction work such as paving, repairing and resurfacing highways, streets, airports, residential and commercial developments, sidewalks, and driveways; grading and base work; and excavation and related activities in the construction of bridges and structures, drainage facilities and underground utilities in 14 southern and midwestern states. APAC also produces and sells construction materials, such as hot-mix asphalt and ready-mix concrete, crushed stone and other aggregate and, in certain markets, concrete block and specialized construction materials, such as architectural block.

Valvoline is a marketer of automotive and industrial oils, chemicals, appearance products and automotive and environmental services, with sales in more than 140 countries. Valvoline is engaged in the "fast oil change" business through outlets operating under the Valvoline Instant Oil Change name.

The Refining and Marketing segment includes Ashland's 38% ownership interest in Marathon Ashland Petroleum LLC (MAP) and certain retained refining and marketing activities. MAP was formed January 1, 1998, combining the major elements of the refining, marketing and transportation operations of Ashland and Marathon Oil Company, which holds a 62% interest in MAP. MAP has seven refineries with a combined crude oil refining capacity of 935,000 barrels per day, 88 light products and asphalt terminals in the Midwest and Southeast United States, more than 5,600 retail marketing outlets in 20 states and significant pipeline holdings. Ashland accounts for its interest in MAP using the equity method of accounting. As a result, 1998 is not comparable to prior years in which Ashland's 100% ownership interest in the former Ashland Petroleum and SuperAmerica was consolidated.

The following table sets forth certain unaudited pro forma financial information for Ashland assuming MAP was formed as of the beginning of both fiscal 1998 and 1997. This pro forma financial information may not be indicative of the results of operations for Ashland that would have resulted if the transaction had occurred as of the dates assumed or which will be obtained in the future.

| (In millions except per share data) | 1998 | 1997 |
|---------------------------------------|---------|----------|
| | | ======== |
| Revenues | \$6,864 | \$6,507 |
| Income from continuing operations(F1) | 155 | 196 |
| Net income | 155 | 283 |
| Diluted earnings per share | | |
| Income from continuing operations(F1) | 2.01 | 2.57 |
| Net income | 2.01 | 3.69 |

[FN]

(F1)Includes inventory adjustments associated with the formation of MAP and changes in MAP's inventory market valuation reserves. Pro forma income from continuing operations excluding these items would have been \$215 million (\$2.78 per share) in 1998 and \$221 million (\$2.89 per share) in 1997. Reported income from continuing operations, excluding these inventory adjustments, was \$212 million (\$2.75 per share) in 1998 and \$192 million (\$2.51 per share) in 1997.

Arch Coal, Inc. is a publicly traded company which was created July 1, 1997, as a result of the merger of Ashland Coal, Inc. and Arch Mineral Corporation. Ashland holds a 55% ownership interest in Arch Coal, which it accounts for under the equity method of accounting as described in Note A. Ashland's former ownership interests in Ashland Coal and Arch Mineral are also presented using the equity method. Arch Coal is the nation's second largest coal producer with subsidiary operations in West Virginia, Kentucky, Virginia, Illinois, Wyoming, Colorado and Utah. Through these operations, Arch Coal provides nearly 10% of the nation's coal supply.

Information about Ashland's domestic and foreign operations follows. Ashland has no material operations in any individual foreign country.

| (In millions) | 1998 | 1997 | 1996 =================================== | 1998 | 1997 |
|--------------------------|------------------|-------------------|---|----------------|----------------|
| United States Foreign | \$5,868 1,065 | \$11,821 1,140 | \$11,490 922 | \$1,300 163 | \$2,821 118 |
| | \$6,933 | \$12,961 | \$12,412 | \$1,463 | \$2,939 |

^{*} Sales of gasoline accounted for 0% in 1998, 19% in 1997 and 18% in 1996 of Ashland's consolidated revenues from external customers, excluding excise taxes.

NOTE D - UNCONSOLIDATED AFFILIATES

Affiliated companies accounted for on the equity method include Marathon Ashland Petroleum LLC (MAP), Arch Coal, Inc. and various other companies. See Notes A and C for a description of MAP and Arch Coal, as well as a discussion of the adoption of the equity method for these two investees. Summarized financial information reported by these affiliates and a summary of the amounts recorded in Ashland's consolidated financial statements follow. MAP is organized as a limited liability corporation (LLC) that has elected to be taxed as a partnership. Therefore, the parents are responsible for income taxes applicable to their share of MAP's taxable income. The net income reflected below for MAP does not include any provision for income taxes which will be incurred by MAP's parents. At September 30, 1998, Ashland's retained earnings include \$356 million of undistributed earnings from unconsolidated affiliates accounted for on the equity method.

| (In millions) | MAP | Arch Coal | Other | Total |
|---|-----------------------|---------------------|-------------------|----------------|
| SEPTEMBER 30, 1998 | | | | |
| Financial position | | | | |
| Current assets | \$ 3,190 | \$ 362 | \$ 74 | |
| Current liabilities | (1,915) | (384) | (34) | |
| Working capital | 1,275 | (22) | 40 | |
| Noncurrent assets | 3,588 | 2,470 | 63 | |
| Noncurrent liabilities | (320) | (1,826) | (15) | |
| Stockholders' equity | \$ 4,543 | \$ 622 ========= | \$ 88 | |
| Results of operations | | | | |
| Sales and operating revenues | \$ 14,588 (F1) | \$ 1,363 | \$ 165 | |
| Income from operations | 729 (F1) | 103 | 45 | |
| Net income Amounts recorded by Ashland | 742 (F1) | 51 | 13 | |
| Investments and advances | 2,102 (F2) | 422 (F2)(| F3) 45 | \$2,569 |
| Equity income | 298 (F4) | 25 | 6 | 329 |
| Distributions received | 233 (F4) ========= | 10 | 9 | 252 |
| SEPTEMBER 30, 1997 | | | | |
| Financial position | | | | |
| Current assets | | \$ 275 | \$ 341 | |
| Current liabilities | | (233) | (242) | |
| Working capital | | 42 | 99 | |
| Noncurrent assets | | 1,362 | 735 | |
| Noncurrent liabilities | | (809) | (542) | |
| Stockholders' equity | | \$ 595 | \$ 292 ======= | |
| Results of operations | | | | |
| Sales and operating revenues | | \$ 1,367 | \$ 1,117 | |
| Income from operations | | 71 | 278 | |
| Net income | | 50 | 65 | |
| Amounts recorded by Ashland | | | | |
| Investments and advances | | 403 | 86 | \$ 489 |
| Equity income | | 25 | 14 | 39 |
| Distributions received | | 12 ======== | 8 ========== | 20 |
| SEPTEMBER 30, 1996 | | | | |
| Results of operations | | A 4 007 | | |
| Sales and operating revenues | | \$ 1,307 | \$ 963 | |
| Income from operations | | 137 | 252 | |
| Net income | | 46 | 36 | |
| Amounts recorded by Ashland Equity income | | 22 | 11 | \$ 33 |
| Distributions received | | 5 | 7 | φ 33 12 |
| ======================================= | =========== | ============ | · ============ | :========= |

- (F1)Amounts represent results of operations for MAP for the nine months ended September 30, 1998 (since inception).
- (F2)At September 30, 1998, Ashland's investment exceeded its underlying equity in net assets by \$376 million for MAP and \$80 million for Arch Coal. Such excess was being amortized against equity income on a straight-line basis for MAP (\$28 million annually) and on the basis of tons of coal produced for Arch Coal (\$3 million in 1998).
- (F3)The market value of Ashland's investment at September 30, 1998, was \$323 million based on the market price of Arch Coal's common stock.
- (F4)Includes \$36 million of equity income and \$61 million in cash flow from Ashland's former Refining and Marketing operations for the quarter ended December 31, 1997, which were restated to the equity method.

NOTE E - INCOME TAXES

A summary of the provision for income taxes related to continuing operations follows.

| (In millions) | 1998 | 1997 | 1996 |
|-----------------------------------|--------|--------|-------|
| Current(F1) Federal State Foreign | \$ 42 | \$ 72 | \$ 57 |
| | (1) | 5 | 7 |
| | 13 | 17 | 17 |
| Deferred | 54 | 94 | 81 |
| | 60 | 33 | (9) |
| | \$ 114 | \$ 127 | \$ 72 |

[FN]

(F1)Income tax payments amounted to \$109 million in 1998, \$51 million in 1997 and \$105 million in 1996.

Deferred income taxes are provided for income and expense items recognized in different years for tax and financial reporting purposes. Temporary differences which give rise to significant deferred tax assets and liabilities follow. These amounts are recorded in various asset and liability accounts on Ashland's consolidated balance sheets.

| (In millions) | 1998 | 1997 |
|--|---|-----------|
| | :====================================== | ========= |
| Employee benefit obligations | \$182 | \$224 |
| Environmental, insurance and litigation reserves | 119 | 103 |
| Compensation accruals | 49 | 48 |
| Uncollectible accounts receivable | 16 | 19 |
| Other items | 63 | 48 |
| Total deferred tax assets | 429 | 442 |
| Property, plant and equipment | 83 | 339 |
| Investment in unconsolidated affiliates | 362 | 51 |
| | | |
| Total deferred tax liabilities | 445 | 390 |
| Net deferred tax asset (liability) | \$(16) | \$ 52 |

The U.S. and foreign components of income from continuing operations before income taxes and a reconciliation of the statutory federal income tax with the provision for income taxes follow.

| 74 \$298 13 21 | \$160 48 |
|-------------------|---|
| | |
| | 48 |
| | |
| .7 \$319 | \$208 |
| .1 \$112 | \$ 73 |
| .0) (10) |) (8) |
| 5 6 | 4 |
| 5 10 | - |
| 3 9 | 3 |
| .4 \$127 | \$ 72 |
| 1 | 11 \$112 10) (10 5 6 5 10 3 9 |

| (In millions) | 1998 | | 1997 | |
|---|------|---------------|-------------------|--|
| Medium-term notes, due 1999-2025, interest at a weighted average rate of 8.2% at September 30, 1998 (5.8% to 10.4%) 8.80% debentures, due 2012 Pollution control and industrial revenue bonds, due 2003-2022, interest at a weighted average rate of 6.5% | \$ | 888 250 | \$ 936 250 | |
| at September 30, 1998 (3.8% to 7.4%) | | 217 | 217 | |
| 6.625% senior notes, due 2008 Other | | 150 43 | 2 | |
| Current portion of long-term debt | 1 | L,548 (41) | 1,405 (49) | |
| | \$ 1 | L,507 | \$ 1,356 | |

Aggregate maturities of long-term debt are \$41 million in 1999, \$36 million in 2000, \$74 million in 2001, \$82 million in 2002 and \$88 million in 2003. Excluded from such maturities are \$38 million of floating-rate pollution control and industrial revenue bonds, due between 2003 and 2009. These bonds are subject to early redemptions at the holders' option, but not before October 1, 1999.

Ashland has a revolving credit agreement which expires on February 9, 2000, providing for up to \$320 million in borrowings, none of which was in use at September 30, 1998. The agreement contains covenants limiting new borrowings, as well as requiring the maintenance of a minimum equity level. Based on Ashland's financial position at September 30, 1998, borrowings (including any borrowings under this agreement) could be increased by up to \$2 billion, or stockholders' equity could be reduced by up to \$1.1 billion. Additional permissible borrowings are reduced by 150% of any reductions in stockholders' equity.

Interest payments on all indebtedness amounted to \$132 million in 1998, \$161 million in 1997 and \$155 million in 1996. The weighted average interest rate on short-term borrowings outstanding was 6.0% at September 30, 1998.

EXTRAORDINARY LOSS

On June 3, 1997, Ashland called its outstanding 6.75% Convertible Subordinated Debentures. On July 3, 1997, \$123 million of the Debentures were redeemed for 101.35% of the principal amount, plus accrued interest, thereby eliminating an associated 2.4 million shares of Ashland Common Stock that had been reserved for conversion. On September 3, 1997, Ashland announced its intention to redeem its 11.125% Sinking Fund Debentures on October 15, 1997. The principal amount outstanding of \$200 million had a redemption price of 105.562%, plus accrued interest to the redemption date. On September 23, 1997, Ashland delivered to the trustee U.S. Treasury securities maturing on October 15, 1997, sufficient to cover the redemption price and accrued interest in accordance with the indenture agreement, thereby relieving Ashland of any further obligations under the Debentures. The redemption premium and writeoff of unamortized deferred debt issuance expenses related to these two transactions resulted in pretax charges totaling \$15 million which, net of income tax benefits of \$6 million, resulted in an extraordinary loss of \$9 million on the early retirement of debt.

NOTE G - FINANCIAL INSTRUMENTS

COMMODITY AND FOREIGN CURRENCY HEDGES

Ashland uses commodity futures contracts and forward exchange contracts to reduce its exposure to certain risks inherent within its businesses as described in Note A. The fair value of open commodity and foreign exchange contracts was not significant at September 30, 1998, and 1997.

INTEREST RATE SWAPS

Ashland uses interest rate swap agreements to obtain greater access to the lower borrowing costs normally available on floating-rate debt, while minimizing refunding risk through the issuance of long-term, fixed-rate debt. At September 30, 1998, Ashland had unleveraged swap agreements with a notional principal amount of \$225 million. These agreements were used to convert fixed rates on certain debt, including \$140 million of the medium-term notes and \$85 million of the 8.80% debentures, to variable rates. The variable rates are generally adjusted quarterly or semiannually based on London Interbank Offered Rates (LIBOR), but may be fixed for longer terms using forward rate agreements. Notional amounts do not quantify risk or represent assets or liabilities of Ashland, but are used in the determination of cash settlements under the agreements. Ashland is exposed to credit losses from counterparty nonperformance, but does not anticipate any losses from its agreements, all of which are with major financial institutions.

At September 30, 1998, Ashland was receiving a weighted-average fixed interest rate of 6.4% and paying a weighted-average variable interest rate of 5.7%, calculated on the notional amount. Interest expense was reduced by \$1 million in 1998 and \$2 million in both 1997 and 1996 resulting from settlements under these agreements. Under its current swap agreements, Ashland's annual interest expense in 1999 will change by about \$2 million for each 1% change in LIBOR. The terms remaining on Ashland's swaps range from 15 to 68 months, with a weighted-average remaining life of 27 months.

FAIR VALUES

The carrying amounts and fair values of Ashland's significant financial instruments, including interest rate swaps, at September 30, 1998, and 1997, are shown below. The fair values of cash and cash equivalents and notes payable to financial institutions approximate their carrying amounts. The fair values of investments of captive insurance companies are based on quoted market prices plus accrued interest. The fair values of long-term debt are based on quoted market prices or, if market prices are not available, the present values of the underlying cash flows discounted at Ashland's incremental borrowing rates. The fair values of interest rate swaps are based on quoted market prices, which reflect the present values of the differences between estimated future variable-rate payments and future fixed-rate receipts.

| | | | 1998 | | 1997 |
|--|--------------------|--------------|---------------|--------------------|---------------|
| (In millions) | Carryinç amount | | Fair value | Carrying amount | Fair value |
| Assets | | | | | |
| Cash and cash equivalents | \$ 34 | ļ : | \$ 34 | \$ 250 | \$ 250 |
| Investments of captive insurance companies(F1) | 98 | } | 98 | 189 | 189 |
| Interest rate swaps | - | | 8 | - | 1 |
| Liabilities | | | | | |
| Notes payable to financial institutions | 84 | ļ | 84 | - | - |
| Long-term debt (including current portion) | 1,548 | ! | 1,775 | 1,405 | 1,570 |

[FN]

(F1)Included in other noncurrent assets in the Consolidated Balance Sheets.

NOTE H - LEASES AND OTHER COMMITMENTS

LEASES

Ashland and its subsidiaries are lessees in noncancelable leasing agreements for office buildings, warehouses, transportation equipment, storage facilities, retail outlets, manufacturing facilities and other equipment and properties which expire at various dates. Capitalized lease obligations are not significant and are included in long-term debt. Future minimum rental payments at September 30, 1998, and rental expense under operating leases follow. In December 1997 and January 1998, Ashland purchased \$254 million in formerly leased assets in connection with the formation of Marathon Ashland Petroleum LLC (MAP), resulting in reduced rental expense and future minimum rental payments.

(In millions)

| Future minimum rent | al payments | Rental expense | 1998 ======== | 1997 | 1996 |
|------------------------------|-------------------------|---|------------------|----------|-------|
| 1999 2000 2001 2002 | \$ 37 32 27 23 | Minimum rentals (including rentals under short-term leases) | \$119 | \$144 | \$134 |
| 2003 | 20 | Contingent rentals | 8 | 13 | 13 |
| Later years | 135 | Sublease rental income | (6) | (13) | (16) |
| | \$ 274 | | \$121 | \$144 | \$131 |

OTHER COMMITMENTS

To obtain mining permits, Arch Coal must post surety bonds guaranteeing that it will perform any required reclamation upon closure of a mine. Such bonds are currently included in Ashland's corporate surety bond program which includes its wholly-owned subsidiaries, primarily the APAC group of construction companies. Since Ashland has indemnity agreements with its surety companies, Ashland was guarantor for reclamation and various other bonds posted by Arch Coal totaling \$442 million at September 30, 1998.

Ashland and Marathon (collectively the Lenders) have entered into a revolving credit agreement providing for loans up to \$500 million to MAP. Loans will be funded by the Lenders based on their respective ownership interests. No loans have been made under this agreement.

NOTE I - CAPITAL STOCK

On August 7, 1998, Ashland's Board of Directors authorized the purchase of up to 4 million shares of Ashland common stock in the open market, of which 1 million shares had been purchased through September 30, 1998, at a cost of \$46 million.

In March 1997, Ashland called the 6 million outstanding shares of its \$3.125 Cumulative Convertible Preferred Stock. Each preferred share was convertible into 1.546 shares of Ashland common stock, plus cash for fractional shares. Almost 99% of the series was submitted for conversion to common stock by the March 31 deadline. The remaining preferred shares were redeemed at a price of \$51.88 per share plus 19.1 cents per share of accrued and unpaid dividends.

Under Ashland's Shareholder Rights Plan, each common share is accompanied by one right to purchase one-thousandth share of preferred stock for \$140. Each one-thousandth share of preferred stock will be entitled to dividends and to vote on an equivalent basis with one common share. The rights are neither exercisable nor separately transferable from the common shares unless a party acquires or tenders for more than 15% of Ashland's common stock. If any party acquires more than 15% of Ashland's common stock. If any party acquires more than 15% of Ashland's common stock or acquires Ashland in a business combination, each right (other than those held by the acquiring party) will entitle the holder to purchase preferred stock of Ashland or the acquiring company at a substantial discount. The rights expire on May 16, 2006, and Ashland's Board of Directors can amend certain provisions of the Plan or redeem the rights at any time prior to their becoming exercisable.

At September 30, 1998, 500,000 shares of cumulative preferred stock are reserved for potential issuance under the Shareholder Rights Plan and 5 million common shares are reserved for issuance under outstanding stock options.

NOTE J - STOCK INCENTIVE PLANS

Ashland has stock incentive plans under which key employees or directors can purchase shares of common stock under stock options or restricted stock awards. Stock options are granted to employees at a price equal to the fair market value of the stock on the date of grant and become exercisable over periods of one to three years. Unexercised options lapse 10 years after the date of grant. Restricted stock awards entitle employees or directors to purchase shares at a nominal cost, to vote such shares and to receive any dividends thereon. However, such shares are subject to forfeiture upon termination of service before the restriction period ends.

As discussed in Note A, Ashland accounts for its stock incentive plans in accordance with APB 25. Ashland has not recognized compensation expense for stock options because the exercise price of the options equals the market price of the underlying stock on the date of grant, which is the measurement date. If the alternative method of accounting for stock incentive plans prescribed by FAS 123 had been followed, Ashland's net income and earnings per share would have been reduced to the pro forma amounts in the table below. The weighted average fair value of options granted was determined using the Black-Scholes option pricing model with the indicated assumptions.

| | 1998 | 1997 | 1996 ====== |
|--|---------|----------|----------------|
| Pro forma | | | |
| Net income (in millions) | \$ 199 | \$ 277 | \$ 211 |
| Basic earnings per share | 2.63 | 3.83 | 3.00 |
| Diluted earnings per share | 2.58 | 3.61 | 2.96 |
| Weighted average fair value per share of options granted | \$11.45 | \$11.28 | \$9.63 |
| Assumptions (weighted average) | | | |
| Risk-free interest rate | 4.7% | 4.6% | 6.6% |
| Expected dividend yield | 2.0% | 2.5% | 2.5% |
| Expected volatility | 23.8% | 22.5% | 22.3% |
| Expected life (in years) | 5.0 | 5.0 | 5.0 |

A progression of activity and various other $\,$ information $\,$ relative to stock options is presented in the table below.

| | | 1998 | | 1997 | | 1996 |
|---|-------------------------------|--|---------------------------------|--|-------------------------------|---|
| (In thousands except per share data) | We Common shares | eighted average option price per share | W Common shares | eighted average option price per share | Common shares | Weighted average option price per share |
| Outstanding - beginning of year(F1) Granted Exercised Canceled | 4,718 580 (282) (51) | \$37.52 48.07 34.85 45.78 | 5,247 814 (1,271) (72) | \$33.97 53.22 32.94 37.29 | 5,222 823 (747) (51) | \$32.72 38.92 30.45 37.35 |
| Outstanding - end of year(F1) | 4,965 | \$38.82 | 4,718 | \$37.52 | 5,247 | \$33.97 |

Exercisable - end of year 3,836 \$35.93 3,373 \$33.78 3,820 \$32.81

[FN] (F1)

Shares of common stock available for future grants of options or awards amounted to 5,134,000 at September 30, 1998, and 5,778,000 at September 30, 1997. Exercise prices per share for options outstanding at September 30, 1998, ranged from \$23.88 to \$33.88 for 2,023,000 shares, from \$35.63 to \$43.13 for 1,587,000 shares, and from \$48.00 to \$53.38 for 1,355,000 shares. The weighted average remaining contractual life of the options was 6.5 years.

NOTE K - LITIGATION, CLAIMS AND CONTINGENCIES

Ashland is subject to various federal, state and local environmental laws and regulations that require remediation efforts at multiple locations, including current operating facilities, operating facilities conveyed to Marathon Ashland Petroleum LLC (MAP), previously owned or operated facilities, and Superfund or other waste sites. During 1998, Ashland provided additional environmental reserves of \$38 million associated principally with the completion of certain voluntary efforts in progress at various operating facilities conveyed to MAP and the closing of a landfill near its former Catlettsburg, Kentucky refinery. Consistent with its accounting policy for environmental costs, Ashland's reserves for environmental assessments and remediation efforts amounted to \$172 million at September 30, 1998, and \$150 million at September 30, 1997. Such amounts reflect Ashland's estimates of the most likely costs which will be incurred over an extended period to remediate identified environmental conditions for which the costs are reasonably estimable, without regard to any third-party recoveries.

Environmental reserves are subject to considerable uncertainties that affect Ashland's ability to estimate its share of the ultimate costs of required remediation efforts. Such uncertainties involve the nature and extent of contamination at each site, the extent of required cleanup efforts under existing environmental regulations, widely varying costs of alternate cleanup methods, changes in environmental regulations, the potential effect of continuing improvements in remediation technology, and the number and financial strength of other potentially responsible parties at multiparty sites.

Ashland is a defendant in a series of cases involving more than 600 former workers at the Lockheed aircraft manufacturing facility in Burbank, California. The plaintiffs allege personal injury resulting from exposure to chemicals sold to Lockheed by Ashland, and inadequate labeling of such chemicals. The cases are being tried in the Superior Court of the State of California for the County of Los Angeles. To date, five trials involving approximately 130 plaintiffs have resulted in total verdicts adverse to Ashland of \$152 million, including \$147 million of punitive damages. Nearly all of these amounts were awarded in the most recently conducted trial. The damage awards have been, or will be, appealed. Ashland believes, upon advice of counsel, that there is a substantial likelihood that the punitive damage awards will be reversed or substantially reduced.

In addition to these matters, Ashland and its subsidiaries are parties to numerous other claims and lawsuits, some of which are also for substantial amounts. While these actions are being contested, the outcome of individual matters is not predictable with assurance.

Ashland does not believe that any liability resulting from any of the above matters, after taking into consideration its insurance coverages and amounts already provided for, will have a material adverse effect on its consolidated financial position, cash flows or liquidity. However, such matters could have a material effect on results of operations in a particular quarter or fiscal year as they develop or as new issues are identified.

NOTE L - ACQUISITIONS AND DIVESTITURES

${\tt ACQUISITIONS}$

During 1998, APAC acquired 10 Missouri-based companies known as the Masters-Jackson group, strengthening APAC's capabilities in asphalt production and paving, concrete paving, aggregate production and bridge-building, and also acquired several smaller construction businesses. Also in 1998, Ashland Chemical acquired Gwil Industries' Plastics Division and made several smaller acquisitions to expand its distribution and specialty chemical businesses. In addition, Valvoline acquired the Eagle One brand of premium automotive appearance products. Eagle One and four of the smaller APAC acquisitions were acquired by the issuance of a total of \$61 million in Ashland common stock, certain of which were accounted for as poolings of interests. Prior periods were not restated since the effects would have been insignificant. The other acquisitions, as well as several smaller acquisitions completed in 1997 and 1996, were accounted for as purchases and did not have a significant effect on Ashland's consolidated financial statements.

DIVESTITURES

During 1998, Ashland sold its 23% interest in Melamine Chemicals for \$26 million, resulting in a pretax gain of \$14 million (\$6 million after tax). In 1997, Ashland sold the domestic exploration and production operations of Blazer Energy Corporation. In 1998, Ashland completed its withdrawal from the business through the sale of its exploration and production operations in Nigeria. See Note B for a description of these transactions and their impact on Ashland's consolidated financial statements.

NOTE M - RELATED PARTY TRANSACTIONS

Ashland sells chemicals and lubricants to Marathon Ashland Petroleum LLC (MAP) and purchases petroleum products from MAP. Such transactions are in the ordinary course of business at negotiated prices comparable to those of transactions with other customers and suppliers. In addition, Ashland leases certain facilities to MAP, and provides certain computer, treasury, accounting, internal auditing and legal services to MAP. For the nine months ended September 30, 1998, Ashland's sales to MAP amounted to \$14 million, its purchases from MAP amounted to \$147 million, and its costs

NOTE N - EMPLOYEE BENEFIT PLANS

PENSION AND OTHER POSTRETIREMENT PLANS

Ashland and its subsidiaries sponsor defined benefit pension plans that cover substantially all employees. Benefits under these plans are generally based on employees' years of service and compensation during the years immediately preceding their retirement. For certain plans, 50% of employees' leveraged employee stock ownership plan (LESOP) accounts are coordinated with and used to fund their pension benefits. Ashland determines the level of contributions to its pension plans annually and contributes amounts within the limitations imposed by Internal Revenue Service regulations.

Ashland and its subsidiaries also sponsor unfunded postretirement benefit plans, which provide health care and life insurance benefits for eligible employees who retire or are disabled. Retiree contributions to Ashland's health care plans are adjusted periodically, and the plans contain other cost-sharing features such as deductibles and coinsurance. Life insurance plans are generally noncontributory. Ashland funds the costs of benefits as they are paid.

Summaries of the changes in the benefit obligations and plan assets (primarily listed stocks and debt securities) and of the funded status of the plans follow.

| | Pension b | enefits | Other postretirement benefits | | |
|--|--------------|---|---|------------------|--|
| (In millions) | 1998 | 1997 | 1998 | 1997 | |
| CHANGE IN BENEFIT OBLIGATIONS | \$635 | | | \$273 | |
| Benefit obligations at October 1 Service cost | ъоз5 28 | \$533 36 | \$308 8 | \$273 11 | |
| Interest cost | 34 | 42 | 16 4 | 21 5 | |
| Retiree contributions Benefits paid | (27) | (24) | (21) | (23) | |
| Obligations assumed by MAP | (153) | · - ′ | (66) | ` | |
| Other-primarily actuarial loss | 86 | 48 | 13 | 21 | |
| Benefit obligations at September 30 | \$603 | \$635 | \$262 | \$308 | |
| CHANGE IN PLAN ASSETS | \$435 | \$348 | \$ - | \$ - | |
| Value of plan assets at October 1 Actual return on plan assets | \$435 19 | ъз48 74 | Ф - | D - | |
| Employer contributions | 4 | 31 | 17 | 18 | |
| Retiree contributions Benefits paid | - (17) | - (18) | 4 (21) | 5 (23) | |
| Assets transferred to MAP | (72) | - | - | - | |
| Value of plan assets at September 30 | \$369 | \$435 | \$ - | \$ - | |
| FUNDED STATUS OF THE PLANS | ============ | ======================================= | ======================================= | ========= | |
| Accumulated obligations less plan assets(F1) | \$103 | \$ 6 | \$262 | \$308 | |
| Provision for future salary increases | 131 | 194 | - | - | |
| Excess of obligations over plan assets(F1) | 234 | 200 | 262 | 308 | |
| Unrecognized actuarial loss Unrecognized transition gain | (106) | (42) 3 | (12) | (25) | |
| Unrecognized prior service credit (cost) | (6) | (11) | 48 | 101 | |
| Net liability recognized | \$122 | \$150 | \$298 | \$384 ======= | |
| BALANCE SHEET LIABILITIES (ASSETS) | | | | | |
| Prepaid benefit costs | \$ (2) | \$ (2) | \$ - | \$ - | |
| Accrued benefit liabilities Intangible assets | 156 (3) | 179 (3) | 298 - | 384 | |
| Accumulated other comprehensive income | (29) | (24) | - | - | |
| Net liability recognized | \$122 | \$150 | \$298 | \$384 | |
| ASSUMPTIONS AS OF SEPTEMBER 30 | ========== | ======================================= | ======================================= | ======== | |
| Discount rate | 7.00% | 7.25% | 7.00% | 7.25% | |
| Rate of compensation increase Expected return on plan assets | 5.00 9.00 | 5.00 9.00 | - | - | |
| ======================================= | =========== | ======================================= | | ========= | |

⁽F1) The projected benefit obligations, accumulated benefit obligations and plan assets for pension plans with accumulated benefit obligations in excess of plan assets were \$603 million, \$472 million and \$369 million as of September 30, 1998, and \$109 million, \$88 million and \$11 million as of September 30, 1997. Unfunded accumulated benefit obligations include \$84 million in 1998 and \$77 million in 1997 associated with nonqualified defined benefit plans.

The following table details the components of pension and other postretirement benefit costs.

| | | Pension benefits | | Other postretirement benefits | | |
|--|-------------------------|-------------------------|-------------------------|-------------------------------|-------------------------|-------------------------|
| (In millions) | 1998 | 1997 ========= | 1996 ========== | 1998 ========= | 1997 ========== | 1996 |
| Service cost Interest cost Expected return on plan assets Other amortization and deferral | \$28 34 (30) 8 | \$36 42 (31) 1 | \$31 39 (27) 2 | \$ 8 16 - (10) | \$11 21 - (16) | \$11 19 - (16) |
| | \$40 | \$48 | \$45 | \$ 14 | \$16 | \$14 |

Ashland amended nearly all of its retiree health care plans in 1992 to place a cap on its contributions and to adopt a cost-sharing method based upon years of service. The cap limits Ashland's contributions to base year per capita costs, plus annual increases of up to 4.5% per year. These amendments reduced Ashland's obligations under its retiree health care plans at that time by \$197 million, which was being amortized to income over approximately 12 years. During 1998, Marathon Ashland Petroleum LLC (MAP) assumed certain of Ashland's postretirement benefit obligations, and \$38 million of the unrecognized credit from this plan amendment was applied against the carrying value of Ashland's investment in MAP. The remaining credit at September 30, 1998, will be amortized over approximately 6 years.

OTHER PLANS

Ashland sponsors a savings plan to assist eligible employees in providing for retirement or other future needs. Under that plan, Ashland contributes up to 4.2% of a participating employee's earnings (1.2% for LESOP participants prior to March 31, 1996). Company contributions amounted to \$15 million in 1998, \$21 million in 1997 and \$12 million in 1996.

NOTE O - QUARTERLY FINANCIAL INFORMATION (UNAUDITED)

The following table presents quarterly financial information and per share data relative to Ashland's common stock. Since the businesses conveyed to MAP are accounted for on the equity method in 1998, sales and operating revenues are not comparable to 1997 when these businesses were consolidated (see Note A).

| Quarters ended | | D | ecembe | er 31 | | | March | 31 | | June 30 | Sep | tember 30 |
|---|----|----------------|--------|---------|------------|-------------------|--------------|----------|---------|--------------|---------------|----------------|
| (In millions except per share data) | | 1997 ====== | :===== | 1996 | - ===== | 1998 ======= | 19 ====== | 97 | 1998 | 1997 | 1998(F1) | 1997(F2 |
| Sales and operating revenues | \$ | 1,598 | \$3 | 3,200 | \$ | 1,473 80 | \$2,9 | 91 46 | \$1,705 | \$3,299 | \$1,757 26 | \$3,342 127 |
| Operating income | | 114 | | 77 | | 80 | | 46 | 226 | 211 | 20 | 127 |
| Income from continuing operations | \$ | 52 | \$ | 24 | \$ | 28 | \$ | 2 | \$ 123 | \$ 119 | \$ - | \$ 48 |
| Income from discontinued operations Extraordinary loss | | - | | 12 - | | - - | | 5 - | - | 9 (2) | - - | 71 (8) |
| Net income | \$ | 52 | \$ | 36 | \$ | 28 | \$ | 7 | \$ 123 | \$ 126 | \$ - | \$ 111 |
| Basic earnings per share Continuing operations | \$ | .69 | \$ | .30 | \$ | .37 | \$ (. | | \$ 1.61 | \$ 1.60 | \$ - | \$.63 |
| Discontinued operations Extraordinary loss | | - | | .18 | | - | • | 08 - | - | .11 (.02) | - | .95 (.10) |
| Net income Diluted earnings per share | \$ | .69 | \$ | . 48 | \$ | .37 | \$. | 03 | \$ 1.61 | \$ 1.69 | \$ - | \$ 1.48 |
| Continuing operations | \$ | .68 | \$ | .30 | \$ | .37 | \$ (. | 05) | \$ 1.59 | \$ 1.54 | \$ - | \$.62 |
| Discontinued operations Extraordinary loss | | - | | . 17 | | - | | 08 - | - | .11 (.02) | - | .93 (.10 |
| Net income | \$ | .68 | \$ | . 47 | \$ | .37 | | 03 | \$ 1.59 | \$ 1.63 | \$ - | \$ 1.45 |
| Common dividends per share Market price per common share | | . 275 | | .275 | | . 275 | . 2 | 275 | . 275 | .275 | . 275 | . 275 |
| High | | 55 | 48 | 3-7/8 | 57 | -15/16 | 45-1 | ./8 | 56-3/16 | 48-1/4 | 56-5/16 | 54-15/16 |
| Low | 4 | 4-1/8 | 39 | 9-3/8 | | 49-1/2 | 39-1 | ./4 | 48 | 40-1/8 | 45-5/16 | 46-1/2 |

- (F1) In the quarter ended September 30, 1998, unusual items reduced income from continuing operations by \$69 million, or \$.91 per diluted share. See Management's Discussion and Analysis and Information by Industry Segment for a discussion of these items.
- (F2) In the quarter ended September 30, 1997, unusual items reduced income from continuing operations by \$28 million, or \$.38 per diluted share. See Management's Discussion and Analysis and Information by Industry Segment for a discussion of these items. A gain on the sale of the domestic operations of Blazer Energy increased income from discontinued operations by \$71 million, or \$.93 per diluted share (see Note B).

| (In millions) | 1998 | 1997 ============ | 1996 |
|-------------------------------------|---|---|---|
| REVENUES | | | |
| Sales and operating revenues | | | |
| Ashland Chemical | \$4,087 | \$ 3,929 | \$ 3,602 |
| APAC | 1,444 | 1,257 | 1,235 |
| Valvoline | 1,023 | 1,053 | 1,133 |
| Refining and Marketing | - | 6,828 | 6,570 |
| Intersegment sales(F1) | (0) | (42) | (4.4) |
| Ashland Chemical Valvoline | (9) | (13) | (14) |
| Refining and Marketing | (11) | (12) (209) | (12) (201) |
| | - | (209) | (201) |
| | 6,534 | 12,833 | 12,313 |
| Equity income Ashland Chemical | • | 0 | |
| Refining and Marketing | 6 298 | 9 5 | 6 5 |
| Arch Coal | 25 | 25 | 22 |
| | | | |
| | 329 | 39 | 33 |
| Other income Ashland Chemical | 43 | 26 | 21 |
| APAC | 43 8 | 26 6 | 9 |
| Valvoline | 6 | 8 | 11 |
| Refining and Marketing | 4 | 31 | 20 |
| Corporate | 9 | 18 | 5 |
| | | | |
| | 70 | 89 | 66 |
| | \$6,933 | \$12,961 | \$ 12,412 |
| OPERATING INCOME | ======================================= | ======================================= | |
| Ashland Chemical | \$ 158(F2) | \$ 140(F3) | \$ 170 |
| APAC | 90 | 82 | 83 |
| Valvoline | 53 | 65(F3) | 79 |
| Refining and Marketing(F4) | 254(F5) | 209(F6) | 101 |
| Inventory valuation adjustments(F7) | (15) | - | = |
| Arch Coal | 25 | 25(F8) | 22 |
| Corporate | (118)(F9) | (60) | (96) |
| | \$ 447 | \$ 461 | \$ 359 |
| ASSETS | | ======================================= | ======================================= |
| Ashland Chemical | \$1,776 | \$ 1,583 | \$ 1,485 |
| APAC | 757 | 531 | 489 |
| Valvoline | 581 | 550 | 556 |
| Refining and Marketing | 2,189 | 2,726 | 2,831 |
| Arch Coal | 422 | 403 | 381 |
| Corporate(F10) | 357 | 669 | 754 |
| | \$6,082 | \$ 6,462 | \$ 6,496 |

| (In millions) | | 1998 | 1997 | 1996 |
|--|--------|--------------|---|-----------|
| | | | | |
| INVESTMENT IN EQUITY AFFILIATES | | | | |
| Ashland Chemical | \$ | 30 | \$ 40 | \$ 38 |
| APAC | | 10 | - | - |
| Valvoline | | 5 | 6 | 6 |
| Refining and Marketing Arch Coal | | 2,102 422 | 37 403 | 33 381 |
| Corporate | | 422 | 3 | 7 |
| | | | | |
| | | 2,569 | \$ 489 | \$ 465 |
| EXPENSE (INCOME) NOT AFFECTING CASH | ====== | ======= | ======================================= | ======= |
| Depreciation, depletion and amortization | | | | |
| Ashland Chemical | \$ | 79 | \$ 94(F3) | \$ 67 |
| APAC | | 64 | 49 | 44 |
| Valvoline | | 24 | 32(F3) | 23 |
| Refining and Marketing | | - 14 | 160 13 | 153 12 |
| Corporate | | | 13 | 12 |
| | | 181 | 348 | 299 |
| Other noncash items(F11) | | | | |
| Ashland Chemical | | (4) | 2 | (15) |
| APAC | | 3 | 9 | - |
| Valvoline | | (1) | (4) | (1) |
| Refining and Marketing | | 36 | 22 | 2 |
| Arch Coal Corporate | | (15) (42) | (11) (4) | (16) |
| | | (42) | (4) | - |
| | | (23) | 14 | (30) |
| | \$ | 158 | \$ 362 | \$ 269 |
| | ====== | ======= | | ======= |
| ADDITIONS TO PROPERTY, PLANT AND EQUIPMENT | | | | |
| Ashland Chemical | \$ | 141 | \$ 100 | \$ 80 |
| APAC | | 81 | 62 | 62 |
| Valvoline | | 32 | 29 | 19 |
| Refining and Marketing | | - | 150 | 187 |
| Corporate | | 20 | 15 | 24 |
| | \$ | 274 | \$ 356 | \$ 372 |
| | | | | |

- (F1)Intersegment sales are accounted for at prices which approximate market value.
- (F2)Includes a gain of \$14 million on the sale of Ashland's 23 percent interest in Melamine Chemicals, Inc.
- (F3)Includes charges of \$16 million for Ashland Chemical and \$10 million for Valvoline to write down goodwill related to certain European operations.
- (F4)Effective January 1, 1998, includes Ashland's equity income from MAP, amortization of Ashland's excess investment in MAP, and certain retained refining and marketing activities.
- (F5)Includes charges of \$43 million for reserves for retained environmental issues associated with properties contributed to MAP and for certain severance costs.
- (F6)Includes a gain of \$11 million resulting from LIFO inventory liquidations.
- (F7)Represents Ashland's share of inventory adjustments associated with the formation of MAP and changes in MAP's inventory market valuation reserve. The reserve reflects the excess of the LIFO cost of MAP's crude oil and refined product inventories over their net realizable values.
- (F8)Includes charges of \$13 million for duplicate facility write-offs, severance and other costs resulting from the merger of Ashland Coal and Arch Mineral into Arch Coal, Inc.
 (F9)Includes charges of \$50 million related to a restructuring of corporate G&A functions and the move of Ashland's headquarters.
- (F9)Includes charges of \$50 million related to a restructuring of corporate G&A functions and the move of Ashland's headquarters. The charge includes severance costs to be paid to terminated employees, reserves for excess leased real estate, and contributions of cash and other real estate committed to be conveyed to Ashland-area charitable and economic development organizations.
- (F10)Includes principally cash, cash equivalents, investments of captive insurance companies, and net assets of discontinued operations held for sale.
- (F11)Includes deferred taxes, equity income from affiliates net of distributions, and other items not affecting cash.

| (In millions except per share data) | 1998 | 1997 | 1996 | 1995 | 1994 |
|--|----------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|---|
| SUMMARY OF OPERATIONS Revenues | | | | | |
| Sales and operating revenues (including excise taxes) | \$6,534 329 | \$12,833 | \$12,313 | \$11,361 | \$10,140 |
| Equity income Other income | 70 | 39 89 | 33 66 | 25 54 | 22 70 |
| Costs and expenses Cost of sales and operating expenses Excise taxes on products and merchandise Selling, general and administrative expenses Depreciation, depletion and amortization | (5,299) - (1,006) (181) | (9,810) (992) (1,350) (348) | (9,512) (985) (1,257) (299) | (8,664) (988) (1,252) (374) | (7,613) (877) (1,105) (275) |
| Operating income Interest expense (net of interest income) | 447 (130) | 461 (142) | 359 (151) | 162 (149) | 362 (117) |
| Income from continuing operations before income taxes Income taxes | 317 (114) | 319 (127) | 208 (72) | 13 1 | 245 (82) |
| Income from continuing operations | 203 | 192 | 136 | 14 | 163 |
| Income from discontinued operations Gain on sale of discontinued operations | - - | 25 71 | 75 - | 10 - | 34 |
| | 203 | 288 | 211 | | 107 |
| Income before extraordinary loss Extraordinary loss on early retirement of debt | 203 - | (9) | - | 24 - | 197 - |
| Net income | \$ 203 | \$ 279 | \$ 211 | \$ 24 | \$ 197 |
| BALANCE SHEET INFORMATION | ========== | ========== | ======== | | ========= |
| Working capital Current assets Current liabilities | \$ 1,828 1,361 | \$ 2,720 2,028 | \$ 2,539 2,067 | \$ 2,405 1,908 | \$ 2,109 1,641 |
| | \$ 467 | \$ 692 | \$ 472 | \$ 497 | \$ 468 |
| Total acceta | | | | | |
| Total assets | \$ 6,082 | \$ 6,462 | \$ 6,496 | \$ 6,225 | \$ 5,662 |
| Capital employed Debt due within one year | \$ 125 | \$ 49 | \$ 127 | \$ 200 | \$ 133 |
| Long-term debt (less current portion) | 1,507 | 1,356 | 1,653 | 1,672 | 1,391 |
| Convertible preferred stock Common stockholders' equity | - 2,137 | - 2,024 | 293 1,521 | 293 1,362 | 293 1,302 |
| | \$ 3,769 | \$ 3,429 | \$ 3,594 | \$ 3,527 | \$ 3,119 |
| CASH FLOW INFORMATION | :====== <u>;</u> | | =========== | | ======================================= |
| Cash flows from continuing operations | \$ 366 | \$ 565 | \$ 544 | \$ 322 | \$ 345 |
| Additions to property, plant and equipment Dividends | 274 84 | 356 86 | 372 89 | 341 87 | 335 79 |
| COMMON STOCK INFORMATION | | | ======== | | ======== |
| Diluted earnings per share | 4 2 62 | ¢ 2.54 | ¢ 100 | ф (OO) | Ф 2.22 |
| Income (loss) from continuing operations Net income | \$ 2.63 2.63 | \$ 2.51 3.64 | \$ 1.80 2.96 | \$ (.08) .08 | \$ 2.32 2.79 |
| Dividends per share | 1.10 | 1.10 | 1.10 ====== | 1.10 | 1.00 ====== |

LIST OF SUBSIDIARIES

Subsidiaries of Ashland Inc. ("AI") at October 1, 1998, included the companies listed below. Ashland has numerous unconsolidated affiliates, which are primarily accounted for on the equity method, and majority-owned consolidated subsidiaries in addition to the companies listed below. Such affiliates and subsidiaries are not listed below since they would not constitute a significant subsidiary considered in the aggregate as a single entity.

^{*100%} of the voting securities are owned by the immediate parent except as otherwise indicated.

CONSENT OF INDEPENDENT AUDITORS

We consent to the incorporation by reference in the Registration Statement (Form S-8 No. 33-52125) pertaining to the Ashland Inc. Deferred Compensation and Stock Incentive Plan for Non-Employee Directors, in the Registration Statement (Form S-8 No. 2-95022) pertaining to the Ashland Inc. Amended Stock Incentive Plan for Key Employees, in the Registration Statement (Form S-8 No. 33-7501) pertaining to the Ashland Inc. Employee Savings Plan, in the Registration Statement (Form S-8 No. 33-26101) pertaining to the Ashland Inc. Long-Term Incentive Plan, in the Registration Statement (Form S-8 No. 33-5922) pertaining to the Ashland Inc. 1993 Stock Incentive Plan, in the Registration Statement (Form S-8 No. 33-49907) pertaining to the Ashland Inc. Leveraged Employee Stock Ownership Plan, in the Registration Statement (Form S-8 No. 33-62901) pertaining to the Ashland Inc. Deferred Compensation Plan, in the Registration Statement (Form S-8 No. 33-33617) pertaining to the Ashland Inc. 1997 Stock Incentive Plan, in the Registration Statement (Form S-3 No. 33-57011) as amended by Post-Effective Amendment No. 2, pertaining to the U.S. \$200,000,000 Ashland Inc. Medium-Term Notes, Series H, and the related Prospectus, of our report dated November 4, 1998, with respect to the consolidated financial statements and schedule of Ashland Inc. and consolidated subsidiaries included in this Annual Report (Form 10-K) for the year ended September 30, 1998.

Ernst & Young LLP

November 24, 1998

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each of the undersigned Directors and Officers of ASHLAND INC., a Kentucky corporation, which is about to file an Annual Report on Form 10-K with the Securities and Exchange Commission under the provisions of the Securities Exchange Act of 1934, as amended, hereby constitutes and appoints PAUL W. CHELLGREN, THOMAS L. FEAZELL and DAVID L. HAUSRATH, and each of them, his true and lawful attorneys-in-fact and agents, with full power to act without the others to sign and file such Annual Report and the exhibits thereto and any and all other documents in connection therewith with the Securities and Exchange Commission, and to do and perform any and all acts and things requisite and necessary to be done in connection with the foregoing as fully as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, may lawfully do or cause to be done by virtue hereof.

Dated: November 5, 1998

/s/ Paul W. Chellgren

| Paul W. Chellgren, Chairman of the Board and Chief Executive Officer | Ralph E. Gomory, Director |
|--|------------------------------|
| /s/ J. Marvin Quin | /s/ Bernadine P. Healy |
| J. Marvin Quin, Senior Vice President and Chief Financial Officer | Bernadine P. Healy, Director |

/s/ Ralph E. Gomory

| /s/ Kenneth L. Auler | 1 | /s/ | Mannie L. | Jackson |
|----------------------|---|-----|-----------|---------|
| | | | | |
| | | | | |

Kenneth L. Aulen, Administrative Vice President, Mannie L. Jackson, Director Controller and Principal Accounting Officer

| /s/ Samuel C. Butler | /s/ Patrick F. Noonan |
|----------------------------|-----------------------------|
| Samuel C. Butler, Director | Patrick F. Noonan, Director |

| /s/ Frank C. Carlucci | /s/ Jane C. Pfeiffer |
|-----------------------------|----------------------------|
| Frank C. Carlucci, Director | Jane C. Pfeiffer, Director |

| /s/ Ernest H. Drew | /s/ Michael D. Rose |
|--------------------------|---------------------------|
| | |
| Ernest H. Drew, Director | Michael D. Rose, Director |

| /s/ James B. Farley | /s/ William L. Rouse, Jr. |
|---------------------|---------------------------|

James B. Farley, Director

ASHLAND INC.

Certificate of Assistant Secretary

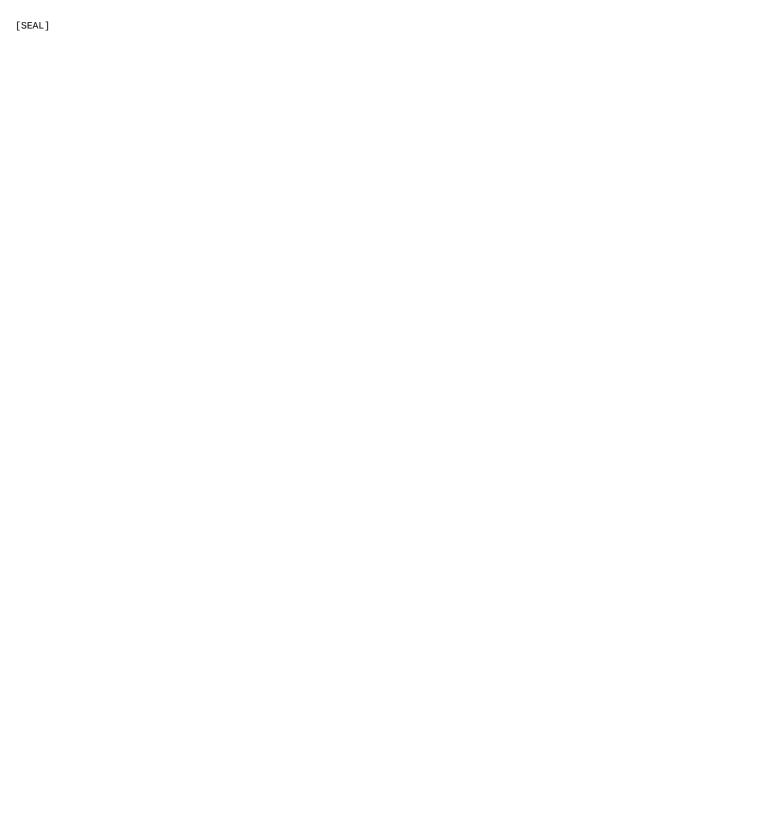
The undersigned hereby certifies that he is an Assistant Secretary of Ashland Inc., a Kentucky corporation (the "Corporation"), and that, as such, he is authorized to execute this Certificate on behalf of the Corporation and further certifies that:

(a) Attached hereto as Exhibit A is a true and correct copy of an excerpt from the minutes of the meeting of the Board of Directors of the Corporation held on November 5, 1998, setting forth certain actions taken at such meeting, and the powers and authorities granted pursuant to such actions have at all times been in effect without amendment, waiver, rescission or modification since November 5, 1998.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of the Corporation on this 18th day of November, 1998.

/s/ T. C. Wales
T. C. Wales
Assistant Secretary

William L. Rouse, Jr., Director



EXCERPT FROM

MINUTES OF DIRECTORS' MEETING

ASHLAND INC.

November 5, 1998

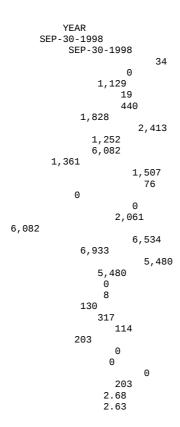
RESOLVED, that the Corporation's Annual Report to the Securities and Exchange Commission (the "SEC") on Form 10-K (the "Form 10-K") in the form previously circulated to the Board in preparation for the meeting be, and it hereby is, approved with such changes as the Chairman of the Board, the President, any Vice President, the Secretary or David L. Hausrath ("Authorized Persons") shall approve, the execution and filing of the Form 10-K with the SEC to be conclusive evidence of such approval; provided, however, that without derogating from the binding effect of the above, it is understood that an Authorized Person shall cause the distribution prior to the filing with the SEC, of a copy of such Form 10-K to the directors in substantially that form which is to be filed with the SEC and that each director's oral concurrence with respect to such form shall be obtained prior to the filing with the SEC;

FURTHER RESOLVED, that the Authorized Persons be, and each of them hereby is, authorized to file with the SEC the Form 10-K and any amendments thereto on Form 10-K/A and/or any other applicable form; and

FURTHER RESOLVED, that the Authorized Persons be, and each of them hereby is, authorized and directed to take such other action as may be necessary and proper to implement the foregoing resolutions.

THIS SCHEDULE CONTAINS SUMMARY FINANCIAL INFORMATION
EXTRACTED FROM ASHLAND INC.'S ANNUAL REPORT TO
SHAREHOLDERS FOR THE FISCAL YEAR ENDED SEPTEMBER 30,
1998 AND IS QUALIFIED IN ITS ENTIRETY BY REFERENCE TO
SUCH ANNUAL REPORT.

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THIS SCHEDULE CONTAINS SUMMARY FINANCIAL INFORMATION

EXTRACTED FROM ASHLAND INC.'S ANNUAL REPORT TO

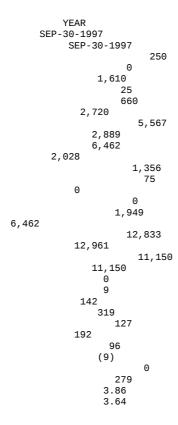
SHAREHOLDERS FOR THE FISCAL YEAR ENDED SEPTEMBER 30,

1998, WHICH RESTATED AND RECLASSIFIED CERTAIN PRIOR

YEAR AMOUNTS, AND IS QUALIFIED IN ITS ENTIRETY BY

REFERENCE TO SUCH ANNUAL REPORT.

1,000,000



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1998, WHICH RESTATED AND RECLASSIFIED CERTAIN PRIOR

YEAR AMOUNTS, AND IS QUALIFIED IN ITS ENTIRETY BY

REFERENCE TO SUCH ANNUAL REPORT.

1,000,000

