

ALBEMARLE CORP
Form 10-K
February 25, 2011
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UNITED STATES
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 December 31, 2010

or

Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934
For the transition period from _____ to _____

Commission file number 001-12658

ALBEMARLE CORPORATION

(Exact name of registrant as specified in its charter)

VIRGINIA
(State or other jurisdiction of
incorporation or organization)

54-1692118
(I.R.S. Employer
Identification No.)

451 Florida Street

Baton Rouge, Louisiana 70801

(Address of principal executive offices) (Zip Code)

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Registrant's telephone number, including area code: 225-388-8011

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

| Title of each class | Name of each exchange on which registered |
|-------------------------------|-------------------------------------------|
| COMMON STOCK, \$.01 Par Value | NEW YORK STOCK EXCHANGE |

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

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

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 at least the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its Corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of large accelerated filer, accelerated filer, and smaller reporting company in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

Number of shares of common stock outstanding as of February 15, 2011: 91,633,335

The aggregate market value of the voting and non-voting common equity stock held by non-affiliates of the registrant was approximately \$3.6 billion based on the reported last sale price of common stock on June 30, 2010, the last business day of the registrant's most recently completed second quarter.

Documents Incorporated by Reference

Portions of Albemarle Corporation's definitive Proxy Statement for its 2011 Annual Meeting of Shareholders to be filed with the Securities and Exchange Commission pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended, are incorporated by reference into Parts II and III of this Form 10-K.

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Albemarle Corporation and Subsidiaries

PART I

Item 1. Business.

Albemarle Corporation was incorporated in Virginia in 1993. Our principal executive offices are located at 451 Florida Street, Baton Rouge, Louisiana 70801. Unless the context otherwise indicates, the terms Albemarle, we, us, our or the Company mean Albemarle Corporation and its consolidated subsidiaries.

We are a leading global developer, manufacturer and marketer of highly-engineered specialty chemicals for consumer electronics, petroleum refining, utilities, packaging, construction, automotive/transportation, pharmaceuticals, crop protection, food-safety and custom chemistry services. We are committed to global sustainability and are advancing responsible eco-practices and solutions in our three business segments. We believe that our commercial and geographic diversity, technical expertise, flexible, low-cost global manufacturing base, and experienced management team enable us to maintain leading market positions in those areas of the specialty chemicals industry in which we operate.

We and our joint ventures currently operate 45 facilities, encompassing production, research and development facilities, and administrative and sales offices in North and South America, Europe, the Middle East and Asia. We serve approximately 3,000 customers in over 100 countries. For information regarding our unconsolidated joint ventures see Note 8, Investments to our consolidated financial statements included in Item 8 beginning on page 47.

Business Segments

Our operations are managed and reported as three operating segments: Polymer Solutions, Catalysts and Fine Chemistry.

For financial information regarding our operating segments, including revenues generated for each of the last three fiscal years from each of the product categories included in our operating segments, and geographic areas, see Note 23, Operating Segments and Geographic Area Information to our consolidated financial statements included in Item 8 beginning on page 47.

Polymer Solutions

Our Polymer Solutions segment consists of two product market categories: flame retardants and stabilizers and curatives.

Flame Retardants. Our fire safety technology enables the use of plastics in high performance, high heat applications by enhancing the flame resistant properties of these materials. Some of the end market products that benefit from our fire safety technology include plastic enclosures for consumer electronics, printed circuit boards, wire and cable, electrical connectors, textiles, foam insulation, and foam seating in furniture and automobiles. We compete in all of the markets for the major fire safety chemistries: brominated, mineral and phosphorus. Our brominated flame retardants include products such as Saytex[®]; our mineral-based flame retardants include products such as Martinal[®] and Magnifin[®]; and our phosphorus-based flame retardants include products such as Antiblaze[®] and Ncendx[®]. Our strategy is to have a broad range of chemistries applicable to each major flame retardant application.

Stabilizers and Curatives. We produce plastic and other additives, such as curatives, antioxidants and stabilizers, which are often specially developed and formulated for a customer's specific manufacturing requirements. Our additives products include curatives for polyurethane, polyurea, and epoxy system polymerization. This business also produces antioxidants and stabilizers to improve the performance integrity of thermoplastic resins. We are well-positioned for global growth, notably with our leading antioxidant supplier position in the rapidly growing Chinese market.

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Our Ethacure[®] curatives are used in cast elastomers, coatings, reaction injection molding (RIM) and specialty adhesives that are incorporated into products such as wheels, tires and rollers. Our line of Ethanox[®] antioxidants is used by manufacturers of polyolefins to maintain physical properties during the manufacturing process, including the color of the final product. These antioxidants are found in applications such as slit film, wire and cable, food packaging and pipes.

We also produce antioxidants used in fuels and lubricants. Our line of Ethanox[®] fuel and lubricant antioxidants is used by refiners and fuel marketers to extend fuel storage life and protect fuel systems, and by oil marketers and lubricant manufacturers to extend the useful life of lubricating oils, fluids and greases used in engines and various types of machinery.

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Albemarle Corporation and Subsidiaries

Customers

Our Polymer Solutions segment offers more than 70 products to a variety of end-markets. We sell our products mostly to chemical manufacturers and processors, such as polymer resin suppliers, lubricant manufacturers, refiners and other specialty chemical companies.

Sales of Polymer Solutions in Asia are expected to grow long-term due to the underlying growth in consumer demand and the shift of the production of consumer electronics from the United States, or U.S., and Europe to Asia. In response to this development, we have established a sales and marketing network in China, Japan, Korea and Singapore with products sourced from the U.S., Europe, China and the Middle East. We are now operating three production facilities in China to deliver polymer solutions products to this rapidly growing market.

A number of customers of our Polymer Solutions segment manufacture products for cyclical industries, including the consumer electronics, building and construction, and automotive industries. As a result, demand from our customers in such industries is also cyclical.

Competition

Our Polymer Solutions segment serves the following geographic markets: the U.S., Asia, Europe and the Middle East, each of which is highly competitive. Product performance and quality, price competition and contract terms are the primary factors in determining which qualified supplier is awarded a contract. Research and development, product and process improvements, specialized customer services, the ability to attract and retain skilled personnel, and maintenance of a good safety record have also been important factors to compete effectively in the Polymer Solutions marketplace.

Competition also arises from the substitution of different polymers and resin systems in end-products in an effort to reduce costs or change product qualities. For flame retardants, competition can be introduced from alternative chemistries, which is why our product portfolio includes bromine, mineral and phosphorus chemistries that are common in over 80% of end uses today. For other additives, competition is introduced by low-cost antioxidant suppliers. We offer our basic antioxidant products from lower cost manufacturing sites in China.

We are a market leader in the brominated flame retardants business and our most significant competitors are Chemtura Corporation and Israel Chemicals Ltd. Industrial Products division, or Israel Chemicals. We are also a market leader in the phosphorus-based flame retardants business and in the mineral-based flame retardants business. Our most significant competitors in the phosphorus-based flame retardants business are Israel Chemicals, Jiangsu Yoke Technology Co., Ltd. and Zhejiang Wansheng Chemical Co., Ltd. In our mineral-based flame retardants business, our most significant competitors include J.M. Huber Corporation, Kyowa Chemical Industry Co., Ltd. and Nabaltec GmbH. We are a market leader in the plastic additives business and our most significant competitors are BASF Corporation, Chemtura Corporation and Songwon Industrial Co., Ltd.

Raw Materials and Significant Supply Contracts

The major raw materials we use in our Polymer Solutions operations are bromine, bisphenol-A, phenol, benzene, caustic soda, phosphorus oxychloride, alumina trihydrate, polystyrene, isobutylene, and phosphorous derivatives, most of which are readily available from numerous independent suppliers and are purchased under contracts at prices we believe are competitive. The cost of raw materials is generally based on market prices although we may use contracts with price caps or other tools, as appropriate, to mitigate price volatility. Many of our customers operate under long-term supply contracts that provide for either the pass-through of raw material and energy cost changes, or pricing based on short-term tenders in which changing market conditions are quickly reflected in the pricing of the finished product.

The bromine we use in our Polymer Solutions segment comes from two locations: Arkansas and the Dead Sea. Our brine reserves in Arkansas are supported by an active brine rights leasing program. We believe that we have in excess of 50 years of proven bromine reserves in Arkansas. In addition, through our 50% interest in Jordan Bromine Company Limited, or JBC, a consolidated joint venture with operations in Safi, Jordan, we produce bromine from the Dead Sea, which has virtually inexhaustible reserves. In addition, we now have a joint venture with Weifang

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Sinobrom Import and Export Company, Ltd., or Sinobrom, in China that allows us the option to source bromine directly from China's Shandong Province brine fields.

We entered into a range of phosphorus derivative supply agreements with Rhodia S.A. as part of the acquisition of the Rhodia polyurethane flame retardants business in 2003.

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Catalysts

Our Catalysts segment includes our refinery catalysts and polyolefin catalysts businesses.

Refinery Catalysts. Our two main refinery catalysts product lines are hydroprocessing catalysts, or HPC, and fluidized catalytic cracking, or FCC, catalysts and additives. In renewable, non-crude based fuels, we have also launched new catalysts for customers, along with ongoing research and development initiatives with additional potential customers.

HPC catalysts are primarily used to reduce the quantity of sulfur and other impurities in petroleum products as well as to convert heavy feedstock into lighter, more valuable products. FCC catalysts assist in the cracking of petroleum streams into derivative, higher-value products such as fuels and petrochemical feedstock. Our FCC additives are used to remove sulfur in gasoline and to reduce emissions of sulfur dioxide and nitrogen oxide in FCC units, to increase liquefied petroleum gas olefins yield and to boost octane in gasoline. We offer more than 90 different HPC catalysts products and more than 70 different FCC catalysts and additives products to our customers.

Polyolefin Catalysts. We manufacture aluminum- and magnesium-alkyls, which are used as co-catalysts in the production of polyolefins, elastomers, alpha olefins (such as hexene, octene and decene) and organotin heat stabilizers which are used in the preparation of organic intermediates. We also produce metallocene/single-site catalysts, which aid in the development and production of new polymers that increase impact strength, clarity and melt characteristics of plastic films. We are continuing to build on our organometallics base and to expand the portfolio of products and capabilities we offer our customers.

Customers

Our Catalysts segment customers include multinational corporations such as ExxonMobil Corporation, Royal Dutch Shell plc and Chevron Corporation; independent petroleum refining companies such as Valero Energy Corporation and Tesoro Petroleum Corporation; and national petroleum refining companies such as Saudi Aramco Mobil Refinery Company Ltd., Petróleo Brasileiro S.A. and Petróleos Mexicanos.

We estimate that there are currently approximately 450 FCC units being operated globally, each of which requires a constant supply of FCC catalysts. In addition, we estimate that there are approximately 3,000 HPC units being operated globally, each of which typically requires replacement HPC catalysts once every one to three years.

Competition

Our Catalysts segment serves the following geographic markets: the Americas, Asia, Europe and the Middle East, each of which is highly competitive. Product performance and quality, price competition and contract terms are the primary factors in determining which qualified supplier is awarded a contract. Research and development, product and process improvements, specialized customer services, the ability to attract and retain skilled personnel and the maintenance of a good safety record have also been important factors to compete effectively in the Catalysts marketplace. Through our research and development programs, we strive to differentiate our business by developing value-added products and products based on proprietary technologies.

We are a market leader in the HPC and FCC catalysts markets and our major competitors in the HPC catalysts market include Criterion Catalysts and Technologies, W.R. Grace & Co./Advanced Refining Technologies and Haldor Topsoe. Our major competitors in the FCC catalysts market include W.R. Grace & Co. and BASF Corporation. Some of our major catalysts competitors have alliances with global major refiners to facilitate new product development and introduction. Our major competitors in the polyolefin market include Akzo Nobel N.V., Chemtura Corporation, Tosoh Corporation, and W.R. Grace & Co.

Raw Materials

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The major raw materials we use in our Catalysts operations include aluminum, ethylene, alpha olefins, sodium silicate, sodium aluminate, kaolin, rare earths, molybdenum, nickel and cobalt, most of which are readily available from numerous independent suppliers and are purchased or provided under contracts at prices we believe are competitive. The cost of raw materials is generally based on market prices, although we may use contracts with price caps or other tools, as appropriate, to mitigate price volatility. Certain critical raw materials may nevertheless be subject to significant volatility despite our mitigating efforts. For example, molybdenum prices averaged \$29.30/lb in 2008 but significantly declined in the fourth quarter of 2008 to end the year at \$9.85/lb. In 2009, prices averaged \$12.05/lb and finished the year at \$12.24/lb, while in 2010 prices averaged \$15.77/lb and finished the year at \$17.02/lb. Our profitability may be affected if we are unable to recover significant raw material costs from our customers.

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Fine Chemistry

Our Fine Chemistry (formerly Fine Chemicals) segment consists of two categories: performance chemicals and fine chemistry services and intermediates.

Performance Chemicals. Performance chemicals include products such as elemental bromine, alkyl bromides, inorganic bromides, brominated powdered activated carbon and a number of bromine fine chemicals. Our products are used in chemical synthesis, oil and gas well drilling and completion fluids, mercury control, paper manufacturing, water purification, beef and poultry processing and various other industrial applications. Other performance chemicals that we produce include tertiary amines for surfactants, biocides, disinfectants and sanitizers; potassium-based products used in industrial applications; alkenyl succinic anhydride used in paper-sizing formulations; and aluminum oxides used in a wide variety of refractory, ceramic and polishing applications. We sell these products to customers throughout the world for use in personal care products, automotive insulation, foundry bricks and other industrial products.

Fine Chemistry Services and Intermediates. In addition to supplying the specific fine chemistry products and performance chemicals for the pharmaceutical and agricultural uses described below, our fine chemistry services business offers custom manufacturing, research and chemical scale-up services for companies. We believe that these services position us to support customers in developing their new products, such as new drugs.

Our most significant pharmaceutical bulk active is ibuprofen. Ibuprofen is widely used to provide temporary pain relief and fever reduction. Bulk ibuprofen is formulated by pharmaceutical companies that sell in both the prescription and over-the-counter markets. This product competes against other painkillers, including aspirin and acetaminophen. We are one of the largest global producers of ibuprofen. We also produce a range of intermediates used in the manufacture of a variety of over-the-counter and prescription drugs.

Our agrichemicals are sold to agrichemical manufacturers and distributors that produce and distribute finished agricultural herbicides, insecticides, fungicides and soil fumigants. Our products include orthoalkylated anilines used in the acetanilide family of pre-emergent herbicides used with corn, soybeans and other crops and methyl bromide, which is used as a soil fumigant. We also manufacture and supply a variety of custom chemical intermediates for the agricultural industry.

In recent years, the market for methyl bromide has changed significantly, driven by the Montreal Protocol of 1990 and related regulation prompted by findings regarding the chemical's potential to deplete the ozone layer. Methyl bromide is injected into the soil by end users before planting to eliminate bacteria, nematodes, fungus and weeds. Methyl bromide is used on high-value crops, such as strawberries, tomatoes, melons and peppers.

We will continue to sell methyl bromide in our current markets throughout 2011, as current regulations allow, with similar critical-use allowances compared to 2010. In accordance with the Montreal Protocol and the U.S. Clean Air Act, completion of the phase-out of methyl bromide as a fumigant in the U.S., Western Europe and Japan took effect in 2005. Methyl bromide, however, can continue to be used for critical uses where there are no other alternatives. Growers submit applications on a yearly basis detailing the amount of methyl bromide they will need for critical uses. Once approved by the U.S. Environmental Protection Agency, or EPA, the U.S. submits the application for approval by the parties to the Montreal Protocol. The critical use process is done annually and will continue until feasible alternatives are available. Certain other markets for methyl bromide, including quarantine and pre-shipment and chemical intermediate uses, are not restricted by the Montreal Protocol.

Customers

Our Fine Chemistry segment manufactures more than 100 products, which are used in a variety of end-markets. Sales of products and services are mostly to chemical manufacturers and processors, including pharmaceutical, agricultural, drilling and oil services, water treatment and photographic companies, and to other specialty chemical companies.

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Pricing for many of our fine chemistry products and services is based upon negotiation with customers. The critical factors that affect prices are the level of technology differentiation we provide, the maturity of the product and the level of assistance required to bring a new product through a customer's developmental process.

Competition

Our Fine Chemistry segment serves the following geographic markets: the Americas, Asia, Europe and the Middle East, each of which is highly competitive. Product performance and quality, price competition and contract terms are the primary factors in determining which qualified supplier is awarded a contract. Research and development, product and process improvements, specialized customer services, the ability to attract and retain skilled personnel and the maintenance of a good safety record have also been important factors to compete effectively in the fine chemistry marketplace.

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We are a market leader in the bromine-based products groups and primarily compete with two other integrated global bromine producers, Chemtura Corporation and Israel Chemicals. We are a leading producer of pharmaceutical bulk actives (*i.e.* ibuprofen and propofol) and we primarily compete with a few major Western competitors, such as BASF Corporation, Lonza, Clariant Ltd. and Cilag AG; however, there is increasing competition from Asian sources. We are seeking to differentiate ourselves from our competitors by developing new, high quality innovative products, offering cost reductions and enhancing the services that we offer.

Raw Materials

The major raw materials we use in our Fine Chemistry operations include potassium chloride, chlorine, ammonia, aluminum chloride, alpha olefins, methyl amines and propylene, most of which are readily available from numerous independent suppliers.

The bromine that we use in our Fine Chemistry segment comes from two locations: Arkansas and the Dead Sea. Our brine reserves in Arkansas are supported by an active brine rights leasing program. We believe that we have in excess of 50 years of proven bromine reserves in Arkansas. In addition, through our 50% interest in JBC, a consolidated joint venture with operations in Safi, Jordan, we produce bromine from the Dead Sea, which has virtually inexhaustible reserves. In addition, we now have our Sinobrom joint venture in China that allows us the option to source bromine directly from China's Shandong Province brine fields.

Sales, Marketing and Distribution

We have an international strategic account program that uses cross-functional teams to serve large global customers. This program emphasizes creative strategies to improve and strengthen strategic customer relationships with emphasis on creating value for customers and promoting post-sale service. Complementing this program are regional Albemarle sales personnel around the world who serve numerous additional customers within North America, Europe, the Middle East, India, Asia Pacific, Russia, Africa and Latin America. We also use more than 60 selected distributors, commissioned sales representatives and specialists in specific market areas, some of which are subsidiaries of large chemical companies.

Research and Development

We believe that in order to generate revenue growth, maintain our margins, and remain competitive, we must continually invest in research and development, product and process improvements and specialized customer services. Through research and development, we continue to seek increased margins by introducing value-added products and proprietary processes and innovative green chemistry technologies. Our green chemistry efforts focus on the development of products that benefit society in a manner that minimizes waste and the use of raw materials and energy, avoids the use of toxic reagents and solvents and is produced in safe, environmentally friendly manufacturing processes. Green chemistry is encouraged with our researchers through periodic focus group discussions and special rewards and recognition for outstanding new green developments.

Our research and development efforts support each of our business segments. The focus of research in Polymer Solutions is divided among new and improved flame retardants, plastic and other additives and blends, and curing agents. Flame retardant research is focused primarily on developing new flame retardants which not only meet the higher performance requirements required by today's polymer producers, formulators and original equipment manufacturers but which also have superior toxicological and environmental profiles, such as our newly introduced Earthwise™ brand, which provides polymer solutions products that are greatly enhanced in both end product performance and environmental responsibility. Plastic and other additives research is focused primarily on developing improved capabilities to deliver commodity and value-added plastic and other additive blends to the polymer market. Curatives research is focused primarily on improving and extending our line of curing agents and formulations.

Catalysts research is focused on the needs of our refinery catalysts customers, our polyolefin catalysts customers, and the developing markets for advanced biofuels. Refinery catalysts research is focused primarily on the development of more effective catalysts and related additives to

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produce clean fuels and to maximize the production of the highest value refined products. In the polyolefin area, we are focused primarily on developing catalysts, co-catalysts and finished catalyst systems for polymer producers to meet the market's demand for improved polyolefin polymers and elastomers. For biofuel production, we work closely with customers to develop sustainable and efficient liquid fuels from renewable resources, including the supply of catalysts for the production of high-performance biodiesel.

The primary focus of our Fine Chemistry research program is the development of efficient processes for the manufacture of chemical intermediates and actives for the pharmaceutical and agrichemical industries. Another area of research is the development of bromine-based products for use as biocides in industrial water treatment and food safety applications, and as additives used to reduce mercury emissions from coal-fired power plants.

We have recognized research and development expenses of \$58.4 million, \$60.9 million, and \$67.3 million in 2010, 2009, and 2008, respectively.

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Intellectual Property

Our intellectual property, including our patents, licenses and trade names, is an important component of our business. As of December 31, 2010, we owned approximately 1,600 active U.S. and foreign patents and had approximately 1,500 pending U.S. and foreign patent applications. We also have acquired rights under the patents and inventions of others through licenses and license our patents and inventions to third parties.

Regulation

Our business is subject to a broad array of employee health and safety laws and regulations, including those under the Occupational Safety and Health Act. We also are subject to similar state laws and regulations as well as local laws and regulations for our non-U.S. operations. We devote significant resources and have developed and implemented comprehensive programs to promote the health and safety of our employees and we maintain an active health, safety and environmental program. We finished 2010 with an occupational injury and illness rate of 0.54 for Albemarle employees and nested contractors.

Our business and our customers also may be subject to significant new requirements under the European Commission's Proposal for the Registration, Evaluation and Authorization of Chemicals, or REACH. REACH imposes obligations on European Union manufacturers and importers of chemicals and other products into the European Union to compile and file comprehensive reports, including testing data, on each chemical substance, and perform chemical safety assessments. Additionally, substances of high concern - such as Carcinogenic, Mutagenic and Reprotoxic, or CMRs; Persistent, Bioaccumulative and Toxic, or PBTs; very Persistent, very Bioaccumulative, or vPvB; and endocrine disruptors will be subject to an authorization process. Authorization may result in restrictions in the use of products by application or even banning the product. In 2009, one of our products was designated by European regulators as a substance of very high concern under authorization, Hexabromocyclododecane, or HBCD. Our sales of HBCD approximate 1% of our total annual net sales.

The REACH regulations impose significant additional burdens on chemical producers, importers, downstream users of chemical substances and preparations, and the entire supply chain. Our significant manufacturing presence and sales activities in the European Union will require us to incur significant additional compliance costs and may result in increases in the costs of raw materials we purchase and the products we sell. Increases in the costs of our products could result in a decrease in their overall demand; additionally, customers may seek products that are not regulated by REACH, which could also result in a decrease in the demand of certain of our products subject to the REACH regulations.

Recently, there has been increased scrutiny by regulatory authorities, legislative bodies and environmental interest groups in various countries in the world of certain brominated flame retardants. We manufacture a broad range of brominated flame retardant products, which are used in a variety of applications. Concern about the impact of some of our products on human health or the environment may lead to regulation or reaction in our markets, independent of regulation. For example, in 2009 the state of Vermont passed a law that bans the use of decabromodiphenyl ether as a flame retardant in mattresses and upholstered furniture after July 1, 2010, and in televisions and computers after July 1, 2012. The state of Oregon also passed a ban on the use of decabromodiphenyl ether as a flame retardant after January 1, 2011. In 2010, the state of Maine broadened existing restrictions on the use of decabromodiphenyl ether to include its use in plastic pallets, effective January 1, 2012. Also, the European Union's existing restrictions on the use of decabromodiphenyl ether in electrical and electronic equipment have been copied by the Republic of India and are likely to be adopted in the People's Republic of China as well. In December 2009, we, along with other leading producers announced a voluntary withdrawal, in cooperation with the EPA, from the production and sale of decabromodiphenyl ether in the U.S. over a period of three to four years. A similar agreement was reached later with Canada. Bills to restrict or ban the use of decabromodiphenyl ether are still under consideration in several U.S. states.

Environmental Regulation

We are subject to numerous foreign, federal, state and local environmental laws and regulations, including those governing the discharge of pollutants into the air and water, the management and disposal of hazardous substances and wastes and the cleanup of contaminated properties. Ongoing compliance with such laws and regulations is an important consideration for us. Key aspects of our operations are subject to these laws and regulations. In addition, we incur substantial capital and operating costs in our efforts to comply with them.

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Liabilities associated with the investigation and cleanup of hazardous substances, as well as personal injury, property damages, or natural resource damages arising from the release of, or exposure to, such hazardous substances, may be imposed in many situations without regard to violations of laws or regulations or other fault, and may also be imposed jointly and severally (so that a responsible party may be held liable for more than its share of the losses involved, or even the entire loss). Such liabilities also may be imposed on many different entities with a relationship to the hazardous substances at issue, including, for example, entities that formerly owned or operated the property affected by the hazardous substances and entities that arranged for the disposal of the hazardous substances at

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the affected property, as well as entities that currently own or operate such property. We are subject to such laws, including the federal Comprehensive Environmental Response, Compensation and Liability Act, commonly known as CERCLA or Superfund, in the U.S., and similar foreign and state laws. We may have liability as a potentially responsible party, or PRP, with respect to active off-site locations under CERCLA or state equivalents. We have sought to resolve our liability as a PRP at these sites through indemnification by third parties and settlements, which would provide for payment of our allocable share of remediation costs. Because the clean-up costs are estimates and are subject to revision as more information becomes available about the extent of remediation required, and in some cases we have asserted a defense to any liability, our estimates could change. Moreover, liability under the CERCLA and equivalent state statutes may be joint and several, meaning that we could be required to pay in excess of our pro rata share of remediation costs. Our understanding of the financial strength of other PRPs has been considered, where appropriate, in estimating our liabilities. Accruals for these matters are included in the environmental reserve discussed above. Our management is actively involved in evaluating environmental matters and, based on information currently available to us, we have concluded that our outstanding environmental liabilities for unresolved waste sites currently known to us should not have a material effect on our operations.

We use and generate hazardous substances and wastes in our operations and may become subject to claims for personal injury and/or property damage relating to the release of such substances into the environment. In addition, some of our current properties are, or have been, used for industrial purposes, which could contain currently unknown contamination that could expose us to governmental requirements or claims relating to environmental remediation, personal injury, and/or property damage. While we conduct our operations so as to minimize the risk of incurring such losses, the nature of our business and the types of operations in which we engage create a potential for such losses to occur. These risks could expose us to substantial liability for personal injury, wrongful death, property damage, loss of production, pollution and other environmental damages. Depending on the frequency and severity of such incidents, it is possible that the Company's operating costs, insurability and relationships with customers, employees and regulators could be impaired. In particular, our customers may elect not to purchase our product if they view our safety record as unacceptable. This could also cause us to lose customers and substantial revenues. However, we believe that the likelihood of an environmental-related catastrophic occurrence or a series of occurrences that could materially affect the Company's financial position or competitiveness is low.

We record accruals for environmental and asset retirement obligation matters when it is probable that a liability has been incurred and the amount of the liability can be reasonably estimated. It is possible that new information or future developments could require us to reassess our potential exposure related to environmental matters. We may incur significant costs and liabilities in order to comply with existing environmental laws and regulations. It is also possible that other developments, such as increasingly strict environmental laws, regulations and orders of regulatory agencies, as well as claims for damages to property and the environment or injuries to employees and other persons resulting from our current or past operations, could result in substantial costs and liabilities in the future. As this information becomes available, or other relevant developments occur, we will adjust our accrual amounts accordingly. While there are still uncertainties related to the ultimate costs we may incur, based upon our evaluation and experience to date, we believe our reserves are adequate. We cannot assure you that, as a result of former, current or future operations, there will not be some future impact on us relating to new regulations or additional environmental remediation or restoration liabilities. See *Safety and Environmental Matters* in Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations on page 45.

Climate Change

The growing concerns about climate change and the related imposition by governments of more stringent regulations may provide us with new or expanded business opportunities. Our Catalysts segment seeks to capitalize on the green revolution by providing solutions to companies pursuing alternative fuel products and technologies, such as biofuels, gas-to-liquids, and others. As demand for, and legislation mandating or incentivizing the use of, alternative fuels and alternative fuel technologies that limit or eliminate greenhouse gas emissions increase, we continue to invest in, and expand our product offerings of, alternative fuel technologies. As a result of the investments in alternative fuel technology products and services to date and our continued focus on these growth areas, we believe we are well positioned to take advantage of opportunities that may arise if new legislation is enacted. See also page 14 for further discussion on climate change in Item 1A. Risk Factors.

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Recent Acquisitions and Joint Ventures

Over the last three years, we have devoted resources to acquisitions and joint ventures, including the subsequent integration of acquired businesses. These acquisitions and joint ventures have expanded our base business, provided our customers with a wider array of products and presented new alternatives for discovery through additional chemistries. Following is a summary of our acquisitions and joint ventures during the last three years.

On December 6, 2010, we announced that we had signed a memorandum of understanding to build a world scale HPC production plant on the site of our existing joint venture Fábrica Carioca de Catalisadores SA (FCC SA) in Santa Cruz, Brazil with Petrobras. The new facility will complement existing production of FCC catalysts. We are also further enhancing our partnership with Petrobras by engaging in a joint technical cooperation aimed at the further development of advanced HPC products, mirroring our very successful existing cooperation in the area of FCC catalysts.

On September 13, 2010, we announced the purchase of certain property and equipment in Yeosu, South Korea in connection with our plans for building a metallocene polyolefin catalyst and trimethyl gallium (TMG) manufacturing site. The site will effectively mirror Albemarle's world scale metallocene polyolefin catalyst and TMG capabilities located in Baton Rouge, Louisiana.

On October 27, 2009, we entered into an agreement with Ibn Hayyan Plastic Products Company (TAYF), an affiliate of Saudi Basic Industries Corporation (SABIC), to form a joint venture called Saudi Organometallic Chemicals Company (SOCC). Under the terms of the joint venture agreement, the two parent companies will build a world-scale organometallics production facility strategically located in the Arabian gulf industrial city of Al-Jubail. Start-up of this facility is anticipated by the second half of 2012.

On December 5, 2008, we reached agreement with Weifang Sinobrom Import and Export Company, Ltd. to form a new Fine Chemistry joint venture that combined the existing business of Sinobrom, a leading marketer of bromine derivatives in China, with our global bromine expertise across the world. The new joint venture, Sinobrom Albemarle Bromine Chemicals (Shandong) Company Ltd., is 75% owned by us and creates new growth platforms for us in Shandong province, the heart of the Chinese bromine and derivatives market.

Effective July 31, 2008, we acquired Sorbent Technologies Corporation, a full-service power plant mercury-control provider, for approximately \$22.4 million. This acquisition broadened our current bromine offerings and allowed us to bring innovative, low-cost turnkey solutions to utilities and other bromine-based mercury solutions providers in the industry while complementing our existing green solutions portfolio and our ongoing mission to provide innovative and viable clean energy products and services to the marketplace.

On June 30, 2008, we acquired the remaining 25% interests in our two antioxidant joint ventures in China (Ningbo Jinhai Albemarle Chemical and Industry Company Limited and Shanghai Jinhai Albemarle Fine Chemicals Company Limited) for approximately \$19.9 million, resulting in our 100% ownership of each of these Polymer Solutions segment joint ventures.

Employees

As of December 31, 2010, we had 4,020 employees of whom 2,055, or 51%, are employed in the U.S.; 1,125, or 28%, are employed in Europe; 590, or 15%, are employed in Asia and 250, or 6%, are employed in the Middle East. Approximately 18% of our U.S. employees are unionized. We have bargaining agreements at three of our U.S. locations:

Baton Rouge, Louisiana United Steel Workers (USW);

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Orangeburg, South Carolina International Brotherhood of Teamsters-Industrial Trades Division (IBT); and

Pasadena, Texas United Steel Workers (USW); Sheet Metal Workers International Association (SMWIA); United Association of Journeymen & Apprentices of Plumbing and Pipefitting Industry (UAJAPPI); and International Brotherhood of Electrical Workers (IBEW).

We believe that we have good working relationships with these unions, and we have operated without a labor work stoppage at each of these locations for more than 17 years. Bargaining agreements expire at our Pasadena, Texas location in 2011, our Baton Rouge, Louisiana location in 2012, and at our Orangeburg, South Carolina location in 2013.

We have two works councils representing the majority of our European sites Amsterdam, the Netherlands and Bergheim, Germany covering approximately 910 employees. In addition, we have approximately 50 employees at our manufacturing facility in Avonmouth, United Kingdom that are represented by unions through a current collective bargaining agreement. We believe that we have a generally good relationship with these councils and bargaining representatives. In September 2009, we entered into consultation processes under local laws at our Amsterdam and Bergheim locations for restructuring programs that included planned reductions in force. During the fourth quarter of 2009, approximately \$1.6 million in related charges were recorded for our Amsterdam restructuring program. During the first quarter of 2010, we recorded approximately \$6.6 million in charges associated with the program at our Bergheim location.

Available Information

Our internet website address is <http://www.albemarle.com>. We make available free of charge through our website our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or

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furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, as well as reports on Forms 3, 4 and 5 filed pursuant to Section 16 of the Exchange Act, as soon as reasonably practicable after such documents are electronically filed with, or furnished to, the Securities and Exchange Commission, or the SEC. The information on our website is not, and shall not be deemed to be, a part of this report or incorporated into any other filings we make with the SEC. These reports may also be obtained at the SEC's Public Reference Room at 100 F Street, N.E., Washington, DC 20549. The SEC also maintains a website at <http://www.sec.gov> that contains reports, proxy statements and other information regarding SEC registrants, including Albemarle.

Our Corporate Governance Guidelines, Code of Business Conduct and the charters of the Audit, Health Safety and Environmental, Executive Compensation, and Nominating and Governance Committees are also available on our website and are available in print to any shareholder upon request by writing to Investor Relations, 451 Florida Street, Baton Rouge, Louisiana 70801, or by calling (225) 388-7654.

Item 1A. Risk Factors.

You should consider carefully the following risks when reading the information, including the financial information, contained in this Annual Report on Form 10-K.

Adverse conditions in the global economy and volatility and disruption of financial markets can negatively impact our customers and suppliers and therefore have a material adverse effect on our results of operations.

A global economic downturn may reduce customer demand or inhibit our ability to produce our products, negatively impacting our operating results. Our business and operating results have been and will continue to be sensitive to global economic downturns, including credit market tightness which can impact our liquidity as well as our customers and suppliers, declining consumer and business confidence, fluctuating commodity prices, volatile exchange rates, and other challenges that can affect the global economy. Our customers may experience deterioration of their businesses, cash flow shortages, and difficulty obtaining financing. As a result, existing or potential customers can delay or cancel plans to purchase products and may not be able to fulfill their obligations in a timely fashion. Further, suppliers may be experiencing similar conditions, which could impact their ability to fulfill their obligations to us. If a global recession continues for significant future periods or deteriorates significantly, our results of operations, financial condition and cash flows could be materially adversely affected.

Our inability to pass through increases in costs and expenses for raw materials and energy, on a timely basis or at all, could have a material adverse effect on the margins of our products.

Our raw material and energy costs can be volatile and may increase significantly. Increases are primarily driven by significantly tighter market conditions and major increases in pricing of basic building blocks for our products such as crude oil, chlorine and metals, including molybdenum, which is used in the refinery catalysts business. We generally attempt to pass changes in the prices of raw materials and energy to our customers, but we may be unable to or be delayed in doing so. Our inability to pass through price increases or any limitation or delay in our passing through price increases could adversely affect our margins. In addition to raising prices, raw material suppliers may extend lead times or limit supplies. Constraints on the supply or delivery of critical raw materials could disrupt production and adversely affect the performance of our business.

We face competition from other specialty chemical companies, which places downward pressure on the prices and margins of our products.

We operate in a highly competitive marketplace, competing against a number of domestic and foreign specialty chemical producers. Competition is based on several key criteria, including product performance and quality, product price, product availability and security of supply, responsiveness of product development in cooperation with customers and customer service. Some of our competitors are larger than we are and may have greater financial resources. These competitors may also be able to maintain significantly greater operating and financial flexibility than we do. As a result, these competitors may be better able to withstand changes in conditions within our industry, changes in the

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prices of raw materials and energy and in general economic conditions. Additionally, competitors pricing decisions could compel us to decrease our prices, which could affect our margins and profitability adversely. Our ability to maintain or increase our profitability is, and will continue to be, dependent upon our ability to offset decreases in the prices and margins of our products by improving production efficiency and volume, shifting to higher margin chemical products and improving existing products through innovation and research and development. If we are unable to do so or to otherwise maintain our competitive position, we could lose market share to our competitors.

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Downturns in our customers' cyclical industries could adversely affect our sales and profitability.

Downturns in the businesses that use our specialty chemicals will adversely affect our sales. Many of our customers are in industries, including the electronics, building and construction, and automotive industries, that are cyclical in nature and sensitive to changes in general economic conditions. Historically, downturns in general economic conditions have resulted in diminished product demand, excess manufacturing capacity and lower average selling prices, and we may experience similar problems in the future. A decline in economic conditions in our customers' cyclical industries may have a material adverse effect on our sales and profitability.

Our results are subject to fluctuation because of irregularities in the demand for our HPC catalysts and certain of our agrichemicals.

Our HPC catalysts are used by petroleum refiners in their processing units to reduce the quantity of sulfur and other impurities in petroleum products. The effectiveness of HPC catalysts diminishes with use, requiring the HPC catalysts to be replaced, on average, once every one to three years. The sales of our HPC catalysts, therefore, are largely dependent on the useful life cycle of the HPC catalysts in the processing units and may vary materially by quarter. In addition, the timing and profitability of HPC catalysts sales can have a significant impact on revenue and profit in any one quarter. Sales of our agrichemicals are also subject to fluctuation as demand varies depending on climate and other environmental conditions, which may prevent farming for extended periods. In addition, crop pricing and timing of when farms alternate from one crop to another crop in a particular year can also alter sales of agrichemicals.

Changes in our customers' products can reduce the demand for our specialty chemicals.

Our customers use our specialty chemicals for a broad range of applications. Changes in our customers' products or processes may enable our customers to reduce consumption of the specialty chemicals that we produce or make our specialty chemicals unnecessary. Customers may also find alternative materials or processes that no longer require our products. For example, many of our flame retardants are incorporated into resin systems to enhance the flame retardancy of a particular polymer. Should a customer decide to use a different polymer due to price, performance or other considerations, we may not be able to supply a product that meets the customer's new requirements. Consequently, it is important that we develop new products to replace the sales of products that mature and decline in use. Our business, results of operations, cash flows and margins could be materially adversely affected if we are unable to manage successfully the maturation of our existing products and the introduction of new products.

Our research and development efforts may not succeed and our competitors may develop more effective or successful products.

The specialty chemicals industry is subject to periodic technological change and ongoing product improvements. In order to maintain our margins and remain competitive, we must successfully develop, manufacture and market new or improved products. As a result, we must commit substantial resources each year to research and development. Ongoing investments in research and development for future products could result in higher costs without a proportional increase in revenues. Additionally, for any new product program, there is a risk of technical or market failure in which case we may not be able to develop the new commercial products needed to maintain our competitive position or we may need to commit additional resources to new product development programs. Moreover, new products may have lower margins than the products they replace.

We also expect competition to increase as our competitors develop and introduce new and enhanced products. For example, our Fine Chemistry segment is experiencing increased competition from large-scale producers of pharmaceuticals, particularly from Asian sources. In our Catalysts segment, our petroleum refinery customers are processing crude oil feedstocks of declining quality, while at the same time operating under increasingly stringent regulations requiring the gasoline, diesel and other fuels they produce to contain fewer impurities, including sulfur. As a result, our petroleum refining customers are demanding more effective and more cost-effective catalysts products. As new products enter the market, our products may become obsolete or competitors' products may be marketed more effectively than our products. If we fail to develop new products, maintain or improve our margins with our new products or keep pace with technological developments, our business, financial condition, results of operations and cash flows will suffer.

Our inability to protect our intellectual property rights could have a material adverse effect on our business, financial condition and results of operations.

Protection of our proprietary processes, methods and compounds and other technology is important to our business. We generally rely on patent, trade secret, trademark and copyright laws of the U.S. and certain other countries in which our products are produced or sold, as well as licenses and nondisclosure and confidentiality agreements, to protect our intellectual property rights. The patent, trade secret, trademark and copyright laws of some countries may not protect our intellectual property rights to the same extent as the laws of the U.S. Failure to protect our intellectual property rights may result in the loss of valuable proprietary technologies. Additionally, some of our technologies are not covered by any patent or patent application and, even if a patent application has been filed, it may not result in an issued patent. If patents are issued to us, those patents may not provide meaningful protection against competitors or

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against competitive technologies. We cannot assure you that our intellectual property rights will not be challenged, invalidated, circumvented or rendered unenforceable.

We could face patent infringement claims from our competitors or others alleging that our processes or products infringe on their proprietary technologies. If we are found to be infringing on the proprietary technology of others, we may be liable for damages, and we may be required to change our processes, to redesign our products partially or completely, to pay to use the technology of others or to stop using certain technologies or producing the infringing product entirely. Even if we ultimately prevail in an infringement suit, the existence of the suit could prompt customers to switch to products that are not the subject of infringement suits. We may not prevail in any intellectual property litigation and such litigation may result in significant legal costs or otherwise impede our ability to produce and distribute key products.

We also rely upon unpatented proprietary manufacturing expertise, continuing technological innovation and other trade secrets to develop and maintain our competitive position. While we generally enter into confidentiality agreements with our employees and third parties to protect our intellectual property, we cannot assure you that our confidentiality agreements will not be breached, that they will provide meaningful protection for our trade secrets and proprietary manufacturing expertise or that adequate remedies will be available in the event of an unauthorized use or disclosure of our trade secrets or manufacturing expertise.

Our substantial international operations subject us to risks of doing business in foreign countries, which could adversely affect our business, financial condition and results of operations.

We conduct a substantial portion of our business outside of the U.S. We and our joint ventures currently have over 30 facilities located outside the U.S., including facilities and offices located in Austria, Australia, Belgium, Brazil, France, Germany, Hungary, India, Italy, Japan, Jordan, Korea, the Netherlands, the People's Republic of China, Russia, Saudi Arabia, Singapore, United Arab Emirates and the United Kingdom. We expect sales from international markets to continue to represent a significant portion of our net sales and the net sales of our joint ventures. Accordingly, our business is subject to risks related to the differing legal, political, social and regulatory requirements and economic conditions of many jurisdictions. Risks inherent in international operations include the following:

fluctuations in exchange rates may affect product demand and may adversely affect the profitability in U.S. Dollars of products and services we provide in international markets where payment for our products and services is made in the local currency;

transportation and other shipping costs may increase;

intellectual property rights may be more difficult to enforce;

foreign countries with their diverse legislative and regulatory structures in various jurisdictions may unexpectedly increase the rate at which our income is taxed, impose additional withholding taxes or otherwise tax our income;

foreign countries may adopt other restrictions on foreign trade or investment, including currency exchange controls;

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trade sanctions could result in losing access to customers and suppliers in those countries;

unexpected adverse changes in foreign laws or regulatory requirements may occur;

agreements may be difficult to enforce and receivables difficult to collect;

compliance with a variety of foreign laws and regulations may be burdensome;

unexpected adverse changes in export duties, quotas and tariffs and difficulties in obtaining export licenses;

general economic conditions in the countries in which we operate could have an adverse effect on our earnings from operations in those countries;

foreign operations may experience staffing difficulties and labor disputes;

foreign governments may nationalize private enterprises; and

our business and profitability in a particular country could be affected by political or economic repercussions on a domestic, country specific or global level from terrorist activities and the response to such activities.

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In addition, certain of our joint ventures operate, and we have ongoing capital projects in, high-risk regions of the world such as the Middle East and South America. Unanticipated events, such as geopolitical changes, could result in a write-down of our investment in the affected joint venture, a delay or cancellation of those capital projects and negatively impact our future growth and profitability. Our success as a global business will depend, in part, upon our ability to succeed in differing legal, regulatory, economic, social and political conditions by developing, implementing and maintaining policies and strategies that are effective in each location where we and our joint ventures do business.

We are exposed to fluctuations in foreign exchange rates, which may adversely affect our operating results and net income.

We conduct our business and incur costs in the local currency of most of the countries in which we operate. The financial condition and results of operations of each foreign operating subsidiary and joint venture are reported in the relevant local currency and then translated to U.S. Dollars at the applicable currency exchange rate for inclusion in our consolidated financial statements. Changes in exchange rates between these foreign currencies and the U.S. Dollar will affect the recorded levels of our assets, liabilities, net sales, cost of goods sold and operating margins and could result in exchange losses. The primary currencies to which we have exposure are the European Union Euro, Japanese Yen, British Pound Sterling, Korean Won, Chinese Renminbi and the U.S. Dollar (in certain of our foreign locations). Exchange rates between these currencies and the U.S. Dollar in recent years have fluctuated significantly and may do so in the future. Significant changes in these foreign currencies relative to the U.S. Dollar could also have an adverse effect on our ability to meet interest and principal payments on any foreign currency-denominated debt outstanding. In addition to currency translation risks, we incur currency transaction risks whenever one of our operating subsidiaries or joint ventures enters into either a purchase or a sales transaction using a different currency from its functional currency. Our operating results and net income may be affected by any volatility in currency exchange rates and our ability to manage effectively our currency transaction and translation risks.

We incur substantial costs in order to comply with extensive environmental, health and safety laws and regulations.

In the jurisdictions in which we operate, we are subject to numerous federal, state and local environmental, health and safety laws and regulations, including those governing the discharge of pollutants into the air and water, the management and disposal of hazardous substances and wastes and the cleanup of contaminated properties. Ongoing compliance with such laws and regulations is an important consideration for us and we incur substantial capital and operating costs in our compliance efforts. Environmen