

# Today's needs won't be tomorrow's needs.

Our world is constantly changing. As the global standard of living improves, the need for the products Albemarle makes and the innovations we create grows with it. As environmental regulations change, we strive to contribute even more solutions to help keep the air, land and water cleaner. And as shareholders continue to seek greater long-term value, we must do our very best to build it for them.

This state of continuous change makes sustainability critical to our existence as a business—and it's why we must always strike a balance between performing today while doing what it takes to be fully prepared for the increased demands the future will bring.

## It's commitment that requires the foresight to exceed even our own high expectations.

But to all those who depend on Albemarle, we're confident that the more than 4,300 men and women of this company will continue to deliver on our promise both today and tomorrow—and do it safely, responsibly and sustainably.

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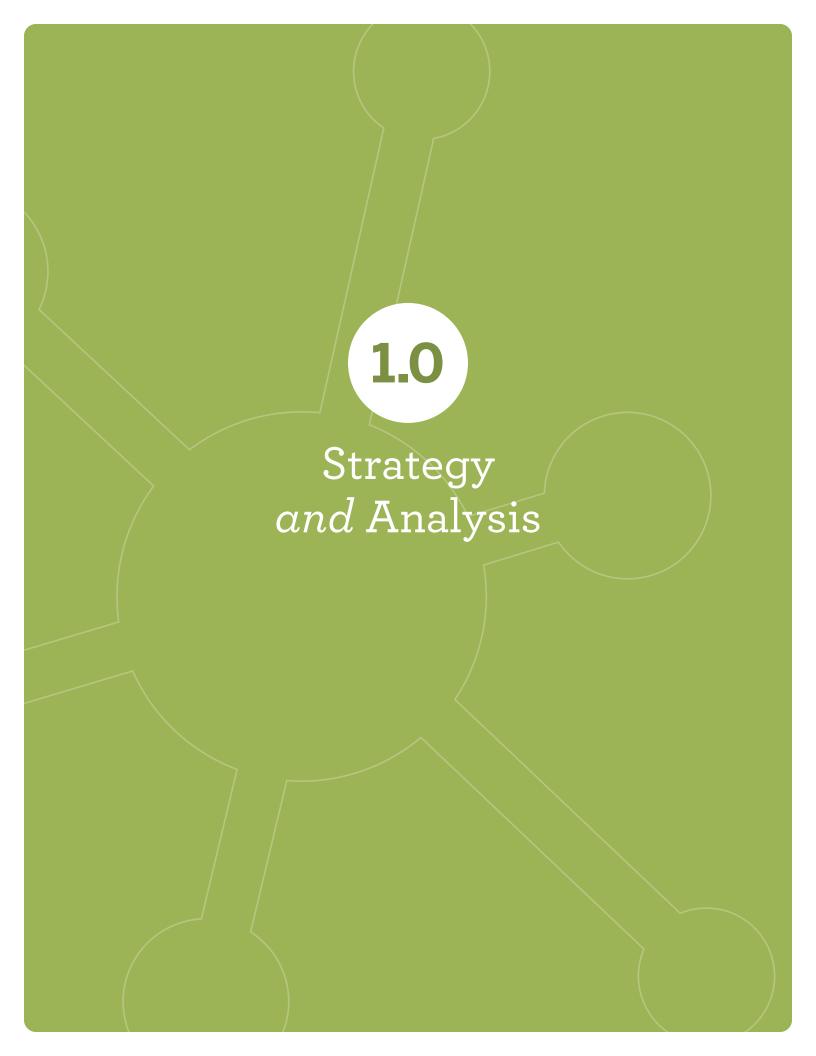
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# **1.1** Statement from the most senior decision maker of the organization

#### Dear Stakeholder,

At Albemarle, we strive to ensure that sustainability is at the core of everything we do. It's that balance of delivering results in a way to meet present needs without compromising the ability to deliver the results that will be necessary to meet what will surely be increasing future needs that makes a company, a community or a planet sustainable. Our goal is simple: provide innovative solutions to our customers to help solve issues that society is facing today and will face in the future. Operating in a safe manner, lessening our environmental footprint, enhancing our communities, developing new and innovative solutions to meet the evolving needs of our customers and delivering solid returns to shareholders are all key components of our goal, and we take each very seriously.

In 2012, we strengthened the foundation for Albemarle's sustainable, long-term growth. With annual sales of \$2.7 billion and profit of \$436 million, Albemarle demonstrated strong earnings power in the face of a weak global economy. We generated over \$500 million in operating cash flow for the second straight year, and we allocated that cash prudently in capital expenditures to spur future growth, stock repurchases and dividend increases. We ended the year with the strongest balance sheet in our history, giving us the flexibility to fund strategic growth opportunities and continue to return a substantial portion of our free cash flow to shareholders.

I'm very proud that 2012 was the safest year in the history of Albemarle, with an injury rate of 0.23. We recorded 9,411,050 worker hours with 10 injuries across our 24 sites around the globe. Even one injury is too many, but this will once again put us near the top quartile of the global specialty chemical industry. We appreciate that our environmental performance is our license to operate in communities around the world, and while we currently operate well within our permit limits, we are committed to reducing our emissions and our use of resources. To accomplish this, we identified ways to lessen our environmental footprint and invested resources to convert those ideas to operation. We are adding purification technology aimed at substantially reducing bromine emissions at our facility in Magnolia, Arkansas. We are improving our wastewater treatment system in Orangeburg, South Carolina, to reduce nitrate emissions. In Jordan, we doubled our bromine capacity, but only increased our needs for water by 8 percent, and we are working to reduce that need even further.

The American Chemistry Council recognized our efforts by naming Albemarle as the 2012 "Responsible Care Company of the Year" for midsized chemical companies. This award is given annually to the company that most embodies the qualities of enhanced environment, health, safety and security performance, and it is a great acknowledgement of the hard work of our more than 4,300 employees around the globe. Albemarle was also honored by Biofuels Digest, which ranked us #55 among the top 100 companies for renewable chemicals and #79 in its poll of the top 150 bioenergy companies, both for 2012. And, we were recognized for our commitment to diversity by the 2020 Women on Boards

organization, which awarded Albemarle the "W" Company award for having at least 20 percent women on our board of directors. These awards reinforce our commitment to going about our business the right way.

Albemarle was awarded 163 new patents during 2012 and ranked third among global chemical companies in the annual patent scorecard of *IEEE Spectrum*, the flagship magazine of the Institute of Electrical and Electronics Engineers. Our ranking in the scorecard, which measures relative patent prowess, validates the ingenuity of our employees and impact of our world-class research capabilities. With over 33 percent of our 2012 revenues derived from sales of new products, it is clear that the knowledge and creativity of our employees is driving the future success of our company.

Our employees take their dedication to sustainability beyond the workplace. They voluntarily give of their time, talents and resources in each community where we operate. The Albemarle Foundation contributed more than \$4.1 million to organizations such as Habitat for Humanity, volunteer fire departments, local food banks and other worthy non-profits. Our employees also maintain nationally certified wildlife habitats in Tyrone, Pennsylvania; Magnolia, Arkansas; and Orangeburg, South Carolina; serve as hosts and teachers for students in Amsterdam, the Netherlands, who want to learn more about how chemistry enhances the world in which we live; restored Margaret Island in Budapest, Hungary; and helped to provide clothing, food and gifts to children in China's Bright Connection.

From their generosity to the innovative products they create each day, Albemarle employees are making a difference. These individuals and the principles that guide their work are the core of what makes Albemarle the company it is, and I am proud to work with this team to deliver sustainable solutions to our stakeholders today and long into the future.

Thank you for taking the time to review our 2012 Corporate Sustainability Report.

Sincerely,

Luke Kissam

Chief Executive Officer

Jupe Kussam





# **1.2** Description of key impacts, risks and opportunities

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 the current weakness in much of the global economy continues for an extended period or deepens significantly, our results of operations, financial condition and cash flows could be materially adversely affected.

In the U.S., absent further Congressional action, an automatic reduction in federal spending, or "sequestration," is to be triggered pursuant to the Budget Control Act of 2011, which, combined with the expiration of certain tax

cuts on December 31, 2012, has typically been known as the "Fiscal Cliff." While Congress did agree to a package of tax and federal spending proposals in January 2013, these did not eliminate the sequestration threat, but moved it back to March 1, 2013. If Congress resolves the Fiscal Cliff through changes within the corporate tax structure, this could result in an increase of our effective tax rate, which could adversely impact our results of operations, financial condition and cash flows. Moreover, if the U.S. Federal Reserve Bank decided to tighten monetary supply in response to congressional action or inaction regarding the Fiscal Cliff, we may incur increased borrowing costs as our interest rates could increase on our variable-rate credit facilities, when our various credit facilities mature or when we refinance maturing fixed-rate debt obligations.

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 the pricing of basic building blocks for our products such as crude oil, chlorine and metals (including molybdenum and rare earths, which are used in the refinery catalysts business). We generally attempt to pass through 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 efficiently and effectively pass through price increases, or inventory impacts resulting from price volatility, 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 and 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 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.

Albemarle's brands, product image and trademarks represent the unique product identity of each of our products and are important symbols of the Company's reputation. Accordingly, the performance of our business could be adversely affected by any marketing and promotional materials



used by our competitors that make false or unsubstantiated claims, imply immoral or improper conduct or are otherwise disparaging to our Company or its products. Further, our own actions could hurt such brands, product image and trademarks if our products underperform or we otherwise draw negative publicity.

# 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 hydrotreating catalysts and certain agrichemicals.



Our hydrotreating 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 these catalysts diminishes with use, and must be replaced, on average, once every one to three years. The sales of our hydrotreating catalysts, therefore, are largely dependent on their useful life cycle in the processing units and may vary materially by quarter. In addition, the timing and profitability of hydrotreating 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

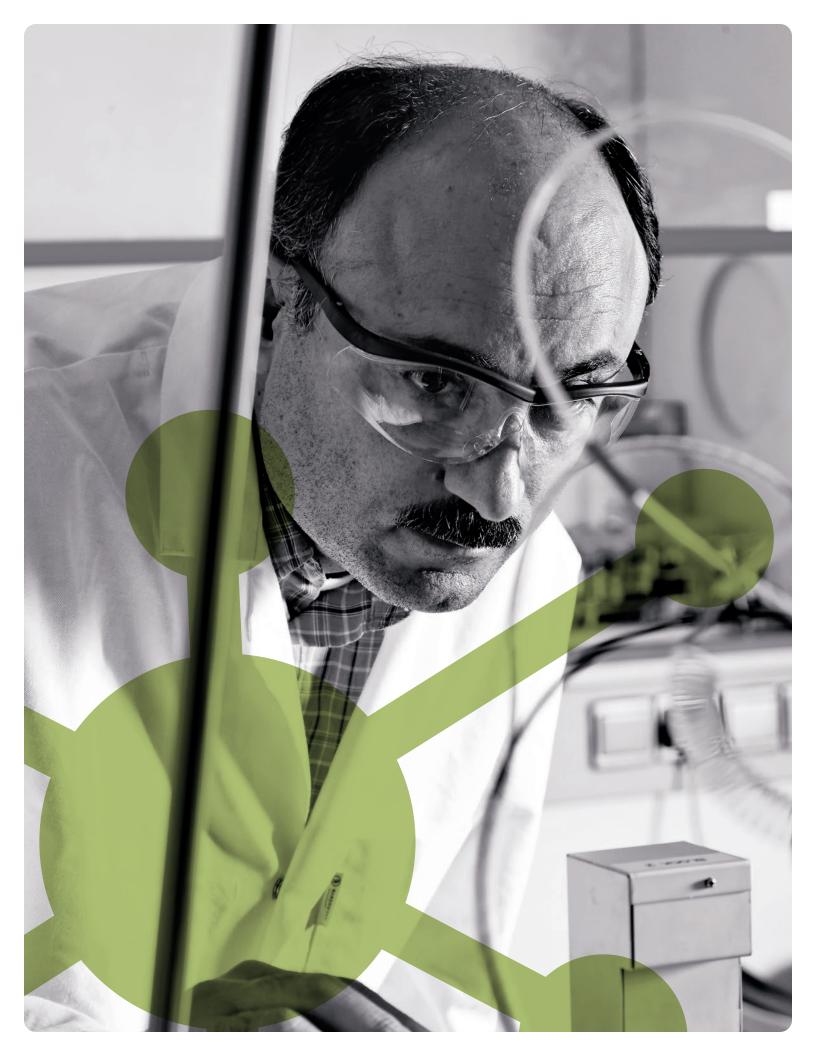
conditions, which may prevent or reduce farming for extended periods. In addition, crop pricing and timing of when farms alternate from one crop to another crop in a particular year can also alter sales of agrichemicals.

# 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 successfully manage 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 chemical 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

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 costeffective 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



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 pharmachemicals, particularly from Asian producers. In our Catalysts segment, our petroleum refinery customers are processing crude oil feedstocks of declining quality, while

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

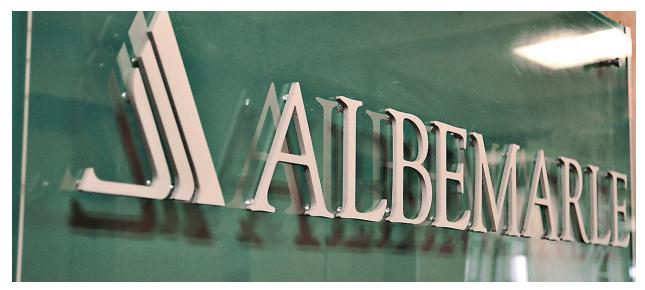


We could face patent infringement claims from our competitors or others alleging that our processes or products infringe on their proprietary technologies. If we are found to be infringing on the proprietary technology of others, we may be liable for damages and we may be required to change our processes, redesign our products partially or completely, pay to use the technology of others, stop using certain technologies or stop 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 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 business and operations could suffer in the event of cyber-security breaches.

Attempts by others to gain unauthorized access to our information technology systems are becoming more sophisticated. These attempts, which might be related to industrial or other espionage, include covertly introducing "malware" to our computers and networks and impersonating authorized users, among others. We seek to detect and investigate all security



incidents and to prevent their recurrence, but in some cases we might be unaware of an incident or its magnitude and effects.

The theft, unauthorized use or publication of our intellectual property and/or confidential business information could harm our competitive position, reduce the value of our investment in research and development and other strategic initiatives or otherwise adversely affect our business. To the extent that any cyber-security breach results in inappropriate disclosure of our customers' or licensees' confidential information, we may incur liability as a result.

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 United States. We and our joint ventures currently have 34 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 foreign currency 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;
- changes in foreign laws and tax rates, or U.S. laws and tax rates with respect to foreign income, may unexpectedly increase the rate at which our income is taxed, impose new and additional taxes or cause the loss of previously recorded tax benefits:

- foreign countries may adopt other restrictions on foreign trade or investment, including currency exchange controls;
- 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;
- compliance with anti-bribery and anticorruption laws may be costly;
- 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.

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 effectively manage 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. Environmental laws have become increasingly strict in recent years. We expect this trend to continue and anticipate that compliance will continue to require increased capital expenditures and operating costs.

Violations of environmental, health and safety laws and regulations may subject us to fines, penalties and other liabilities and may require us to change certain business practices or curtail production.

If we violate environmental, health and safety laws or regulations, in addition to being required to correct such violations, we can be held liable in administrative, civil or criminal proceedings for substantial fines and other sanctions could be imposed that could disrupt or limit our operations. 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 may also 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 the affected property, as well as entities that currently own or operate such property. Such liabilities can be difficult to identify and the extent of any such liabilities can be difficult to predict. We use, and in the past have used, hazardous substances at many of our facilities, and we have in the past, and may in the future, be subject to claims relating to exposure to hazardous materials and the associated liabilities may be material. We also have generated, and continue to generate, hazardous wastes at a number of our facilities. Some of our facilities also have lengthy histories of manufacturing or other activities that have resulted in site contamination. We

the nature or extent of our liability with respect to identified sites, and additional sites may be identified for which we are alleged to be liable, that could cause us to materially increase our environmental accrual or the upper range of the costs we believe we could reasonably incur for such matters.

## Contractual indemnities may be ineffective in protecting us from environmental liabilities.

At several of our properties where hazardous substances are known to exist (including some sites where hazardous substances are being investigated or remediated), we believe we are entitled to contractual indemnification



have also given contractual indemnities for environmental conditions relating to facilities we no longer own or operate. The nature of our business, including historical operations at our current and former facilities, exposes us to risks of liability under these laws and regulations due to the production, storage, use, transportation and sale of materials that can cause contamination or personal injury if released into the environment. Additional information may arise in the future concerning

from one or more former owners or operators; however, in the event we make a claim, the indemnifier may disagree with us or not have the financial capacity to fulfill its indemnity obligation. If our contractual indemnity is not upheld or effective, our accrual and/or our costs for the investigation and cleanup of hazardous substances could increase materially.

We may be exposed to certain regulatory and financial risks related to climate change.

Growing concerns about climate change may result in the imposition of additional regulations or restrictions to which we may become subject. Climate changes include changes in rainfall and in storm patterns and intensities, water shortages, significantly changing sea levels, and increasing atmospheric and water temperatures, among others. For example, there has been increasing concern regarding the declining water level of the Dead Sea, from which our joint venture, JBC, produces bromine. A number of governments or governmental bodies have introduced or are contemplating regulatory



changes in response to climate change. For example, some of our operations are within jurisdictions that have, or are developing, regulatory regimes governing greenhouse gas emissions. Potentially, some form of U.S. federal regulation will be forthcoming with respect to greenhouse gas emissions (including carbon dioxide [CO2]) and/or "cap and trade" legislation. In addition, we have operations in the European Union, Brazil, China, Japan, Jordan, Saudi Arabia, Singapore and the United Arab Emirates, all of which have implemented measures to achieve objectives under the Kyoto Protocol, an international agreement

linked to the United Nations Framework Convention on Climate Change that set binding targets for reducing greenhouse gas emissions. The first commitment period under the Kyoto Protocol expired in 2012. A successor global policy framework is under negotiation (the Doha climate change talks) but is not yet accepted by all countries. The outcome of new legislation in the U.S. and other jurisdictions in which we operate may result in new or additional regulation, additional charges to fund energy efficiency activities or restrictions on certain activities. While certain climate change initiatives may result in new business opportunities for us in the area of alternative fuel technologies and emissions control, compliance with these initiatives may also result in additional costs to us, including, among other things, increased production costs, additional taxes, reduced emission allowances or additional restrictions on production or operations. Any adopted future climate change regulations could also negatively impact our ability to compete with companies situated in areas not subject to such limitations. Even without such regulation, increased public awareness and adverse publicity about potential impacts on climate change, emanating from us or from our industry, could harm us. We may not be able to recover the cost of compliance with new or more stringent laws and regulations, which could adversely affect our business and negatively impact our growth. Furthermore, the potential impacts of climate change and related regulation on our customers are highly uncertain and may adversely affect us.

Regulation, or the threat of regulation, of some of our products could have an adverse effect on our sales and profitability.

We manufacture or market a number of products that are or have been the subject of attention by regulatory authorities and environmental interest groups. For example, for many years we have marketed methyl bromide, a chemical that is particularly effective as a soil fumigant. In recent years, the market for methyl bromide has changed significantly, driven by the Montreal Protocol of 1990 and related regulations prompted by findings regarding the chemical's potential to deplete the ozone layer. Completion of the phase-out of methyl bromide as a fumigant took effect January 1, 2005, with critical uses allowed on an annual basis until feasible alternatives are available.

Recently, there has been increased scrutiny of certain brominated flame retardants by regulatory authorities, legislative bodies and environmental interest groups in various countries. 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, that could reduce or eliminate markets for such products.

In 2009, one of our products, HBCD, was designated by European regulators as a Substance of Very High Concern. In February 2011, the European Union included HBCD on a list of substances published under Annex XIV of the REACH regulation. Our expectation is that the sale of HBCD could be banned in Europe under the REACH process in 2015.

Also, the Persistent Organic Pollutants Review Committee, a scientific body to the Stockholm Convention on Persistent Organic Pollutants (POPs), recommended in October 2012 that

HBCD be banned under the Convention, with certain uses exempted to allow time for the development of alternative products. Our sales of HBCD approximated 1.9 percent, 2.1 percent, and 1.2 percent of our total annual net sales in 2012, 2011 and 2010, respectively.

In 2012, another one of our products, decaBDE, was similarly nominated in Europe as a Substance of Very High Concern. Our sales of decaBDE approximated 0.7 percent, 0.7 percent and 1.1 percent of our total annual net sales in 2012, 2011 and 2010, respectively. In accordance with our voluntary commitment announced in 2009, Albemarle ceased production of decaBDE effective at the end of 2012.

Agencies in the European Union continue to evaluate the risks to human health and the environment associated with certain brominated flame retardants such as tetrabromobisphenol A and decabromodiphenylethane, both of which we manufacture. Additional government regulations, including limitations or bans on the use of brominated flame retardants. would likely result in a decline in our net sales of brominated flame retardants and have an adverse effect on our sales and profitability. In addition, the threat of additional regulation or concern about the impact of brominated flame retardants on human health or the environment could lead to a negative reaction in our markets that could reduce or eliminate our markets for these products, which could have an adverse effect on our sales and profitability.

We could be subject to damages based on claims brought against us by our customers, or lose customers as a result of the failure of our products to meet certain quality specifications.



Our products provide important performance attributes to our customers' products. If a product fails to perform in a manner consistent with quality specifications or has a shorter useful life than guaranteed, a customer could seek replacement of the product or damages for costs incurred as a result of the product failing to perform as quaranteed. These risks apply to our refinery catalysts in particular because, in certain instances, we sell our refinery catalysts under agreements that contain limited performance and life cycle guarantees. A successful claim or series of claims against us could have a material adverse effect on our financial condition and results of operations and could result in a loss of one or more customers.

### Our business is subject to hazards common to chemical businesses, any of which could interrupt our production and adversely affect our results of operations.

Our business is subject to hazards common to chemical manufacturing, storage, handling and transportation, including explosions, fires, inclement weather, natural disasters, mechanical failure, unscheduled downtime, transportation interruptions, remediation, chemical spills, discharges or releases of toxic or hazardous substances or gases, and other



risks. These hazards can cause personal injury and loss of life, severe damage to, or destruction of, property and equipment, and environmental contamination. In addition, the occurrence of material operating problems at our facilities due to any of these hazards may diminish our ability to meet our output goals. Accordingly, these hazards and their consequences could have a material adverse effect on our operations as a whole, including our results of operations and cash flows, both during and after the period of operational difficulties.

# Natural disasters and weather-related matters could impact our results of operations.

In 2005 and again in the third quarter of 2008, major hurricanes caused significant disruption to operations on the U.S. Gulf Coast for many of our customers and our suppliers of certain raw materials, which had an adverse impact on volume and cost for some of our products. If similar weather-related matters or other natural disasters occur in the future, they could negatively affect the results of operations at our sites in the affected regions as well as have adverse impacts on the global economy.

# The insurance that we maintain may not fully cover all potential exposures.

We maintain property, business interruption and casualty insurance, but such insurance may not cover all risks associated with the hazards of our business and is subject to limitations, including deductibles and maximum liabilities covered. We may incur losses beyond the limits, or outside the coverage, of our insurance policies, including liabilities for environmental remediation. In addition, from time to time, various types of insurance for companies in the specialty chemical industry have not been

available on commercially acceptable terms or, in some cases, have not been available at all. We are potentially at additional risk if one or more of our insurance carriers fail. Additionally, severe disruptions in the domestic and global financial markets could adversely impact the ratings and survival of some insurers. Future downgrades in the ratings of enough insurers could adversely impact both the availability of appropriate insurance coverage and its cost. In the future, we may not be able to obtain coverage at current levels, if at all, and our premiums may increase significantly on coverage that we maintain.

### We may incur significant charges in the event we close or divest all or part of a manufacturing plant or facility.

We continually assess our manufacturing operations in order to manufacture and distribute our products in the most efficient manner. Based on our assessments, we may make capital improvements to modernize certain units, move manufacturing or distribution capabilities from one plant or facility to another plant or facility, discontinue manufacturing or distributing certain products or close or divest all or part of a manufacturing plant or facility. We also have shared services agreements at several of our plants, and if such agreements are terminated or revised, we would assess and potentially adjust our manufacturing operations. The closure or divestiture of all or part of a manufacturing plant or facility could result in future charges that could be significant.

If we are unable to retain key personnel or attract new skilled personnel, it could have an adverse effect on our business. The unanticipated departure of any key member of our management team could have an adverse effect on our business. In addition, because of the specialized and technical nature of our business, our future performance is dependent on the continued service of, and on our ability to attract and retain, qualified management, scientific, technical, marketing and support personnel. Competition for such personnel is intense, and we may be unable to continue to attract or retain such personnel.

Some of our employees are unionized, represented by workers' councils or are employed subject to local laws that are less favorable to employers than the laws of the U.S.

As of December 31, 2012, we had 4,304 employees. Approximately 17 percent of our 2,156 U.S. employees are unionized. Our collective bargaining agreements expire in 2013, 2014 and 2015. In addition, a large number of our employees are employed in countries in which employment laws provide greater bargaining or other rights to employees than the laws of the U.S. Such employment rights require us to work collaboratively with the legal representatives of the employees to effect any changes to labor arrangements. For example, most of our employees in Europe are represented by workers' councils that must approve any changes in conditions of employment, including salaries, benefits and staff changes, and may impede efforts to restructure our workforce. Although we believe that we have a good working relationship with our employees, a strike, work stoppage, slowdown or significant dispute with our employees could result in a significant disruption of our operations or higher ongoing labor costs.

Our joint ventures may not operate according to their business plans if our partners fail to fulfill their obligations, which may adversely affect our results of operations and may force us to dedicate additional resources to these joint ventures.

We currently participate in a number of joint ventures and may enter into additional joint ventures in the future. The nature of a joint venture requires us to share control with unaffiliated third parties. If our joint venture partners do not fulfill their obligations, the affected joint venture may not be able to operate according to its business plan. In that case, our results of operations may be adversely affected, and we may be required to increase the level of our commitment to the joint venture. Also, differences in views among joint venture participants may result in delayed decisions or failures to agree on major issues. If these differences cause the joint ventures to deviate from their business plans, our results of operations could be adversely affected.

# We may not be able to consummate future acquisitions or integrate future acquisitions into our business, which could result in unanticipated expenses and losses.

As part of our business growth strategy, we have acquired businesses and entered into joint ventures in the past and intend to pursue acquisitions and joint venture opportunities in the future. Our ability to implement this component of our growth strategy will be limited by our ability to identify appropriate acquisition or joint venture candidates and our financial resources, including available cash and borrowing capacity. The expense incurred in consummating acquisitions or entering into joint ventures, the time it takes

to integrate an acquisition or our failure to integrate businesses successfully, could result in unanticipated expenses and losses. Furthermore, we may not be able to realize any of the anticipated benefits from acquisitions or joint ventures.

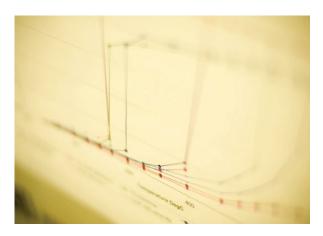
The process of integrating acquired operations into our existing operations may result in unforeseen operating difficulties and may require significant financial resources that would otherwise be available for the ongoing development or expansion of existing operations. Some of the risks associated with the integration of acquisitions include:

- potential disruption of our ongoing business and distraction of management;
- unforeseen claims and liabilities, including unexpected environmental exposures;
- unforeseen adjustments, charges and write-offs;
- problems enforcing the indemnification obligations of sellers of businesses or joint venture partners for claims and liabilities;
- unexpected losses of customers of, or suppliers to, the acquired business;
- difficulty in conforming the acquired businesses' standards, processes, procedures and controls with our operations;
- variability in financial information arising from the implementation of purchase price accounting;
- inability to coordinate new product and process development;
- loss of senior managers and other critical personnel and problems with new labor unions; and
- challenges arising from the increased scope, geographic diversity and complexity of our operations.

Although our pension plans currently meet minimum funding requirements, events could occur that would require us to make significant contributions to the plans and reduce the cash available for our business.

We have several defined benefit pension plans around the world, including in the U.S., the Netherlands, Germany, Belgium and Japan, covering most of our employees. The U.S. plans represent approximately 94 percent of the total liabilities of the plans worldwide. We are required to make cash contributions to our pension plans to the extent necessary to comply with minimum funding requirements imposed by the various countries' benefit and tax laws. The amount of any such required contributions will be determined annually based on an actuarial valuation of the plans as performed by the plans' actuaries.

During 2011 and 2010, we made voluntary contributions to our U.S. qualified defined benefit pension plans of \$50.0 million and \$70.0 million, respectively. We anticipate that the funded status of each of our U.S. qualified defined benefit pension plans will be 100 percent in 2013 and, therefore, the plans should not be subject to benefit limitations in conjunction with the Pension Protection Act of 2006. Additional voluntary pension



contributions in and after 2013 may vary depending on factors such as asset returns, interest rates and legislative changes. The amounts we may elect or be required to contribute to our pension plans in the future may increase significantly. These contributions could be substantial and would reduce the cash available for our business.

The occurrence or threat of extraordinary events, including domestic and international terrorist attacks, may disrupt our operations and decrease demand for our products.

Chemical-related assets may be at greater risk of future terrorist attacks than other possible targets in the U.S. and throughout the world. As a result, we are subject to existing federal rules and regulations (and may be subject to additional legislation or regulations in the future) that impose site security requirements on chemical manufacturing facilities, which increases our overhead expenses.

We are also subject to federal regulations that have heightened security requirements for the transportation of hazardous chemicals in the U.S. We believe we have met these requirements but additional federal and local regulations that limit the distribution of hazardous materials are being considered. We ship and receive materials that are classified as hazardous. Bans on movement of hazardous materials through cities, like Washington, D.C., could affect the efficiency of our logistical operations. Broader restrictions on hazardous material movements could lead to additional investment to produce hazardous raw materials and change where and what products we manufacture.

The occurrence of extraordinary events, including future terrorist attacks and the outbreak or escalation of hostilities, cannot be

predicted, and their occurrence can be expected to continue to negatively affect the economy in general and specifically the markets for our products. The resulting damage from a direct attack on our assets, or assets used by us, could include loss of life and property damage. In addition, available insurance coverage may not be sufficient to cover all of the damage incurred or, if available, may be prohibitively expensive.

### We will need a significant amount of cash to service our indebtedness and our ability to generate cash depends on many factors beyond our control.

Our ability to generate sufficient cash flow from operations to make scheduled payments on our debt depends on a range of economic, competitive and business factors, many of which are outside of our control. Based on a weighted average interest rate of 4.7 percent and outstanding borrowings at December 31, 2012 of \$699.3 million, our annual interest expense would be approximately \$32.9 million. A hypothetical 10 percent increase in the average interest rate applicable to the variable portion of such borrowings would change our annualized interest expense by less than \$0.1 million. Our business may not generate sufficient cash flow from operations to service our debt obligations. If we are unable to service our debt obligations, we may need to refinance all or a portion of our indebtedness on or before maturity, reduce or delay capital expenditures, sell assets or raise additional equity. We may not be able to refinance any of our indebtedness, sell assets or raise additional equity on commercially reasonable terms or at all, which could cause us to default on our obligations and impair our liquidity. Our inability to generate sufficient cash flow to

satisfy our debt obligations, or to refinance our obligations on commercially reasonable terms, could have a material adverse effect on our business and financial condition.

## Restrictive covenants in our debt instruments may adversely affect our business.

Our September 2011 credit agreement and the indentures governing our senior notes contain select restrictive covenants. These covenants provide constraints on our financial flexibility. The failure to comply with the covenants in our September 2011 credit agreement, the indentures governing the senior notes and the agreements governing other indebtedness, including indebtedness incurred in the future, could result in an event of default, which, if not cured or waived, could have a material adverse effect on our business, financial condition and results of operations.

# A downgrade of the ratings on our debt or an increase in interest rates will cause our debt service obligations to increase.

Borrowings under our September 2011 credit agreement bear interest at floating rates. The rates are subject to adjustment based on the ratings of our senior unsecured long-term debt by Standard and Poor's Ratings Services, or S&P, and Moody's Investors Services, or Moody's. S&P has rated our senior unsecured long-term debt as BBB+ and Moody's has rated our senior unsecured long-term debt as Baa1. S&P and/or Moody's may, in the future, downgrade our ratings. The downgrading of our ratings or an increase in benchmark interest rates would result in an increase of our interest expense on borrowings under our September 2011 credit agreement.

Changes in credit ratings issued by nationally recognized statistical rating organizations could adversely affect our cost of financing and the market price of our securities.

Credit rating agencies rate our debt securities on factors that include our operating results, actions that we take, their view of the general outlook for our industry and their view of the general outlook for the economy. Actions taken by the rating agencies can include maintaining, upgrading or downgrading the current rating or placing us on a watch list for possible future downgrading. Downgrading the credit rating of our debt securities or placing us on a watch list for possible future downgrading would likely increase our cost of future financing, could limit our access to the capital markets and have an adverse effect on the market price of our securities.

Because a significant portion of our operations is conducted through our subsidiaries and joint ventures, our ability to service our debt is largely dependent on our receipt of distributions or other payments from our subsidiaries and joint ventures.

A significant portion of our operations is conducted through our subsidiaries and joint ventures. As a result, our ability to service our debt is partially dependent on the earnings of our subsidiaries and joint ventures and the payment of those earnings to us in the form of dividends, loans or advances and

through repayment of loans or advances from us. Payments to us by our subsidiaries and joint ventures will be contingent upon our subsidiaries' or joint ventures' earnings and other business considerations and may be subject to statutory or contractual restrictions. In addition, there may be significant tax and other legal restrictions on the ability of non-U.S. subsidiaries or joint ventures to remit money to us.

The instruments governing our indebtedness do not limit our acquisitions and may allow us to incur additional indebtedness, including indebtedness in relation to acquisitions.

We have historically expanded our business primarily through acquisitions. A part of our business strategy is to continue to grow through acquisitions that complement and expand our distribution network. The terms of our indebtedness do not limit the number or scale of acquisitions that we may complete. Because the consummation of acquisitions and integration of acquired businesses involves significant risk, this means that investors in our securities will be subject to the risks inherent in our acquisition strategy.



## 2.1 Name of Organization

Albemarle Corporation



# **2.2** Primary brands, products and/or services

We are a leading global developer, manufacturer and marketer of highly-engineered specialty chemicals that meet customer needs across an exceptionally diverse range of end markets, including the petroleum refining, consumer electronics, plastics/packaging, construction, automotive, lubricants, pharmaceuticals, crop protection, food safety and custom chemistry services markets. 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, innovative capability, flexible, low-cost, global manufacturing base, experienced management team and strategic focus on our core base technologies will enable us to maintain leading market positions in those areas of the specialty chemical industry in which we operate.

We and our joint ventures currently operate 51 facilities, encompassing production, research and development facilities, and administrative and sales offices in North and South America, Europe, the Middle East, Asia, Africa and Australia. We serve approximately 2,800 customers in approximately 100 countries.

## Albemarle is organized into the following operation segments:

- Polymer Solutions
- Catalysts
- Fine Chemistry

See the Albemarle 2012 10-K for a description of these operating segments, including a representative listing of applications, products and trademarks for each business.



## **2.3** Operational structure of the organization, including main divisions, operating companies, subsidiaries and joint ventures

The authority to manage the business ultimately rests with the board of directors. The role of the board is to effectively govern the affairs of the organization for the benefit of our stakeholders.

Albemarle is organized into three major divisions: Polymer Solutions (flame retardants, stabilizers and curatives), Fine Chemistry (performance chemicals, pharmaceutical actives ingredients, agrichemicals and fine chemistry services and Intermediates) and Catalysts (refinery catalyst solutions and performance catalyst solutions).

### **2.4** Location of organization's headquarters

Albemarle Corporation's headquarters is located at 451 Florida St., Baton Rouge, La 70801.



2.5/2.6 Number of countries where the organization operates and names of countries with either major operations or that are specifically relevant to the sustainability issues in the report; nature of ownership and legal form

Albemarle Corporation is a global company. Being able to provide timely and sound customer service to our stakeholders is paramount to our success. We are continually investing in our production facilities, research and development facilities, and administrative and sales offices to ensure that we have the best available infrastructure to support our operations.

Location	Principal Use	Owned/Leased
Ames, Iowa	Research and development of heterogeneous biodiesel catalysis	Leased
Amsterdam, the Netherlands	Production of refinery catalysts; research and product development activities	Owned
Avonmouth, United Kingdom	Production of flame retardants	Owned; on leased land

Location	Principal Use	Owned/Leased	
Baton Rouge, Louisiana	Research and product development activities, production of flame retardants, catalysts and additives	Owned; on leased land	
Baton Rouge, Louisiana	Principal executive offices	Leased	
Beijing, China	Regional sales and administrative offices	Leased	
Bitterfeld, Germany	Refinery catalyst regeneration, rejuvenation and sulfiding	Owned by Eurecat S.A., a joint venture of IFP Investissements and Albemarle, each owning a 50 percent interest	
Bergheim, Germany	Production of flame retardants and specialty products based on aluminum trihydrate and aluminum oxide, and research and product development activities	Owned	
Budapest, Hungary	Regional shared services office	Leased	
Dalian, China	Regional shared services office	Leased	
Dubai, United Arab Emirates	Regional sales and administrative offices	Leased	
Houston, Texas	Regional sales and administrative offices	Leased	
Jinshan District, Shanghai, China	Production of antioxidants and polymer intermediates	Owned; on leased land	
Jubail, Saudi Arabia	Manufacturing and marketing of organometallics	Owned by Albemarle Netherlands BV and Saudi Organometallic Chemicals Company, by a joint venture of Saudi Specialty Chemicals Company (a SABIC affiliate), each owning a 50 percent interest	
Louvain-la-Neuve, Belgium	Regional offices and research and customer technical service activities	Owned	
La Voulte, France	Refinery catalysts regeneration and treatment, research and development activities	Owned by Eurecat S.A., a joint venture of IFP Investissements and Albemarle Europe SPRL, each owning a 50 percent interest	
Magnolia, Arkansas	Production of flame retardants, bromine, inorganic bromides, agricultural intermediates and tertiary amines	Owned	



Location	Principal Use	Owned/Leased	
McAlester, Oklahoma	Refinery catalyst regeneration, rejuvenation, pre-reclaim burn-off, as well as specialty zeolites and additives marketing activities	Owned by Eurecat S.A., a joint venture of IFP Investissements and Albemarle, each owning 50 percent interest	
Mobile, Alabama	Production of tin stabilizers	Owned by PMC Group, Inc., which operates the plant for Stannica LLC, a joint venture in which Albemarle and PMC Group Inc., each owning a 50 percent interest	
Moscow, Russia	Regional sales and administrative offices	Leased	
Nevada, Iowa	Research and development of heterogeneous biodiesel catalysis	Leased	
Niihama, Japan	Production of refinery catalysts	Leased by Nippon Ketjen Company Limited, a joint venture of Sumitomo Metal Mining Company Limited and Albemarle Japan, each owning a 50 percent interest	
Ninghai County, Zhejiang Province, China	Production of antioxidants and polymer intermediates	Owned; on leased land	
Orangeburg, South Carolina	Production of flame retardants, aluminum alkyls and fine chemistry products, including pharmaceutical actives, fuel additives, orthoalkylated phenols, polymer modifiers and phenolic antioxidants	Owned	
Pasadena, Texas	Production of aluminum alkyls, alkenyl succinic anhydride, orthoalkylated anilines and other specialty chemicals	Owned	
Pasadena, Texas	Production of refinery catalysts; research and development activities	Owned	
Pasadena, Texas	Refinery catalysts regeneration services	Owned by Eurecat U.S. Incorporated, a joint venture in which Albemarle Corporation owns a 57.5 percent interest; a consortium of entities in various proportions owns the remaining interest	
Safi, Jordan	Production of bromine and derivatives and flame retardants	Owned and leased by JBC, a joint venture of Arab Potash Company Limited and Albemarle Corporation, each owning a 50 percent interest	

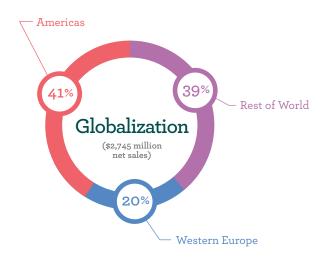
Location	Principal Use	Owned/Leased	
St. Jakobs/ Breitenau, Austria	Production of specialty magnesium hydroxide products	Leased by Magnifin Magnesiaprodukte GmbH and Co. KG, a joint venture of Radex Heraklit. Industriebeteiligung AG and Albemarle Martinswerk GmbH, each owning a 50 percent interest	
Santa Cruz, Brazil	Production of catalysts, research and product development activities	Owned by Fábrica Carioca de Catalisadores S.A, a joint venture of Petrobras Química S.A.— PETROQUISA and Albemarle Brazil Holdings Ltd., each owning a 50 percent interest	
Seoul, South Korea	Regional sales and administrative offices	Leased	
Shandong, China	Regional sales and administrative offices	Owned by Shandong Sinobrom, a joint venture in which Albemarle China Corporation owns a 75 percent interest, and Weifang Rui Yin Investment Management and Consultancy Co. Ltd., owns a 25 percent interest	
Shanghai, China	Regional sales and administrative offices	Leased	
Singapore	Regional sales and administrative offices	Leased	
South Haven, Michigan	Production of custom fine chemistry products including pharmaceutical actives	Owned	
Taipei, Taiwan	Regional sales and administrative offices	Leased	
Takaishi City, Osaka, Japan	Production of aluminum alkyls	Owned by Nippon Aluminum Alkys, a joint venture of Mitsui Chemicals, Inc. and Albemarle Japan Corporation, each owning a 50 percent interest	
Tokyo, Japan	Regional sales and administrative offices	Leased	
Tokyo, Japan	Administrative offices	Leased by Nippon Ketjen Co., Ltd., a joint venture of Sumitomo Metal Mining Co. Ltd. and Albemarle Japan Corporation, each owning a50 percent interest	
Tokyo, Japan	Regional sales and administrative offices	Leased by Nippon Aluminum Alkyls, a joint venture of Mitsui Chemicals, Inc. and Albemarle Japan Corporation, each owning a 50 percent interest	

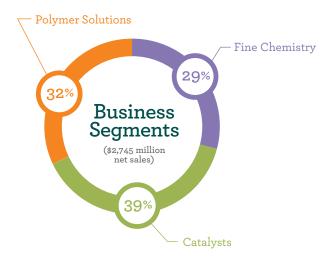
Location	Principal Use	Owned/Leased
Twinsburg, Ohio	Production of bromine- activated carbon	Leased
Tyrone, Pennsylvania	Production of custom fine chemistry products, agricultural intermediates, performance polymer products; research and development activities	Owned
Yeosu, South Korea	Research and product development activities for production of catalysts and catalyst components	Owned

### **2.7** Markets served (including geographic breakdown, sectors served and types of customers/beneficiaries)

### **2012 SALES BY REGION**

### 2012 SALES BY GLOBAL BUSINESS UNIT







### **2.8** Scale of reporting organization

We and our joint ventures currently operate 51 facilities, encompassing production, research and development facilities, and administrative and sales offices in North and South America, Europe, the Middle East, Asia, Africa and Australia. We serve approximately 2,800 customers in approximately 100 countries.

Data as of December 31, 2012 (as reported in the Albemarle Corporation 2012 10-k):

Employees: 4,304

2012 Net Sales: \$2.745 billion

### **Total Capitalization**

Total Assets: \$3.437 billion Total Debt: \$699.288 million

Stockholders' Equity: \$ 1.834 billion

Beneficial ownership information is found in the Albemarle Corporation 2013 Proxy Statement.

### **2.9** Significant changes during the reporting period regarding size, structure or ownership

While we are continuously assessing opportunities in high-growth and evolving markets, in the last year we have not had a significant change in size, structure or ownership. We have made a few changes that are consistent with our business strategy. These changes have expanded our base business, provided our customers with a wider array of products and presented new alternatives for discovery through additional chemistries. The following is a summary of those changes in 2012:

On May 17, 2012, we announced plans to exit the phosphorus flame retardants business. One of the fundamental drivers of Albemarle's future growth is our ability to manage our business portfolio and show discipline in addressing underperforming assets or product lines. It was clear that our phosphorus business and product lines were not strategically aligned with our growth plans.

Additionally, throughout 2012, we announced construction initiation, expansion and the grand opening of our Yeosu, Korea site. This new facility will enable us to meet both existing and future demand in the rapidly expanding electronic chemicals market.

### **2.10** Awards received in the reporting period

Albemarle is proud to be recognized on many fronts for our efforts. We have received awards at both the company and the facility level. Albemarle was selected as an American Chemistry Council 2012 Responsible Care® Company of the Year. We are also recognized as a 2020 Women on Boards "W" Company of the Year.

Location	Facility Awards and Certifications	
Albemarle Corporation	ACC Responsible Care Performance Award	
	Baton Rouge General 2012 Excellence in General Award	
	2020 Women on Boards "W" Company of the Year	
	Polyurea Development Association Tom Davis Memorial Reward – Most Creative Development in Chemistry Used in the Development of Polyurea and Thick Films Elastomeric Products	
	# 55 of the Top 100 Companies for Renewable Chemicals from Biofuels Digest	
	# 79 of the Top 150 Bioenergy Companies from Biofuels Digest	
Bayport, Texas	2012 Manufacturing ODI Champion	
BRT, Baton Rouge, Louisiana	2012 VPP Safety Performance Award	
Clearlake, Texas	Continuing Sponsor of the Valero Texas Open Benefit Charity for Children, Multiple AFPM Screening Committee Members	
Magnolia, Arkansas	VPP Star Site	
	Union Pacific Railroad Pinnacle Award	
Orangeburg, South Carolina	"The Catalyst" for economic success from Southwest Michigan First, S.C. Smart Business Recycling program, WHC Wildlife at Work Recertification (National), WHC Pollinator Protection Award (National).	
	WHC Wildlife at Work recertification	
	WHC Pollinator Protection Award	
Pasadena, Texas	ACC 2012 Responsible Care Energy Efficiency Award	
	ACC 2012 Significant Improvement for Manufacturing Award	
	ACC 2012 Environmental Impact Award	
PDC, Baton Rouge, Louisiana	Louisiana DEQ Environmental Leadership Award	
	2012 VPP Safety Performance Award	
South Haven, Michigan	ACC 2012 Public Outreach Award	
	ACC 2012 Responsible Care Energy Efficiency Award	
	Rising Star Award from the Michigan Occupational Safety and Health Administration (MIOSHA)	
	MVPP Rising Star Site	
	WHC "People's Choice for Best 2012 Calendar Page"	

### Location

### Facility Awards and Certifications

### Tyrone, Pennsylvania

Wildlife at Work recertification from the Wildlife Habitat Council (WHC)

Distinguished Service Award, In Recognition of Outstanding Leadership and Service, from the Kiwanis Club of Northern Blair County

Borough of Tyrone - Total Compliance of All Industrial Waste

Blair County LEPC - Sara Summit

WHC Certified Corporate Lands for Learning

Excellence Award from Dow AgroScience External Manufacturing organization

ACC Responsible Care Facility Safety Award – Certification of Excellence

OSHA VPP recertification for 2012





## **3.1/3.2/3.3** Reporting period for information provided/date of most recent previous report/reporting cycle

The reporting period for this information is the calendar year 2012 (January 1 to December 31, 2012). This is the fifth publicly released Sustainability Report/Global Reporting Initiative G3 report for Albemarle Corporation. This report is released in 2013 based upon 2012 information. Albemarle Corporation produces this report annually.

### **3.4** Contact point for questions regarding the report or contents

### Niomi Krzystowczyk

Vice President, Health, Safety and Environment Niomi.Krzystowczyk@albemarle.com

3.5 Process for defining report content, including the process for determining the materiality and prioritization of issues within the report, the identification of stakeholders that the organization expects to use the report

The subjects/material covered in this report were selected based upon the GRI guidelines, as well as Albemarle's management systems, goals and objectives for the organization and their importance to our stakeholders. A multifunctional sustainability team, comprised of representatives from Health, Safety and

Environment (HSE), Human Resources, Legal, Advocacy, Finance and Manufacturing compiled quantitative data from each operating site/department. Experts throughout the organization provided qualitative reporting and commentary on various subjects.

Albemarle has identified the following stakeholders expected to use this report



3.6 Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers) — See GRI Boundary Protocol for further guidance

The financial data provided for this report includes assets, liabilities, revenues and expenses of all owned and leased operations under Albemarle control. Please see section 2.5 for ownership parameters.



### **3.7** State any specific limitations on the scope or boundary of the report

Limitations to this report are based upon Albemarle's ability via management systems, priorities and intellectual property considerations to monitor and track specific data requirements. Limitations or data not included are clearly indicated in the specific sections of this report. In the specific instance of human resource reporting in regions outside of the United States, we are prevented from compiling and reporting demographic specific information. For all other information, we will investigate existing reporting systems to provide the necessary detail in the 2014 GRI report.

3.8 Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations and other entities that can significantly affect comparability from period to period and/or between organizations

Reporting on joint ventures is clearly denoted in specific indicators and elsewhere within the report where relevant.



3.9 Data measurement techniques and bases for calculations, including assumptions and techniques underlying estimations applied to the compilation of the indicators and other information in the report

Bases and techniques of specific calculations are identified in the pertinent indicator sections. Industry-accepted methodology for financial and emissions calculations and reporting are used across the board.

**3.10** Explanation of the nature and effect of any restatements in information provided in previous reports and reasons for restatement(s)

To the best of our knowledge, the information in this report is current, and historical information that may be included in previous versions of this report or other public reports is consistent.

# **3.11** Significant changes from previous reporting periods in the scope, boundary or measurement methods applied in the report

No significant changes in reporting methods have been identified.

### 3.12 Standard Disclosure Table

The Standard Disclosure Table is the Table of Contents, which begins on page 2.

## **3.13** Policy and current practice with regard to seeking independent assurance for the report

This report is not subjected to a comprehensive external assurance process. Financial, safety and environmental information is subject to both national regulatory requirements, as well as internal and external audit such as ISO 14001 and similar systems. This report contains a consolidation of this information.



4.0

Governance, Commitments and Engagements

**Economic Indicators** 

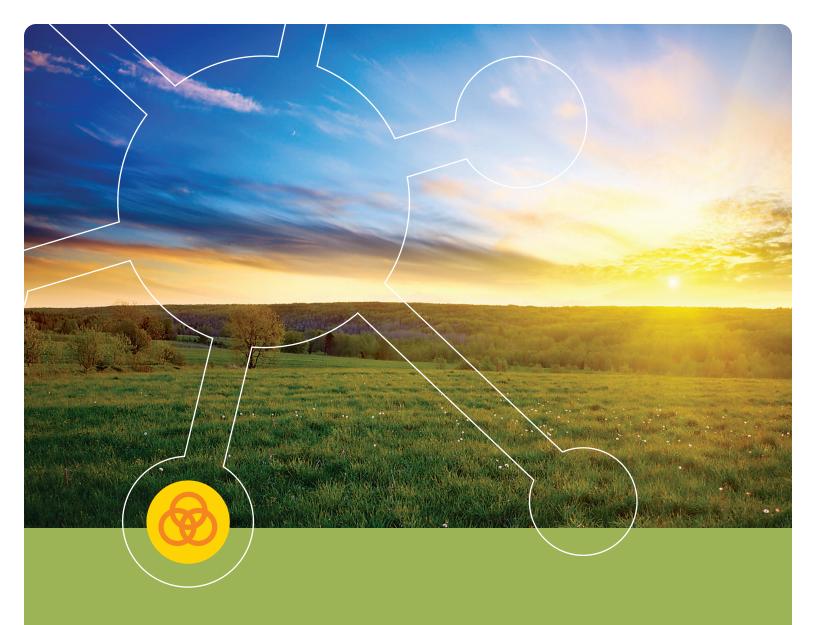
Environmental Indicators

Labor Practices and Dynamic, Protected Employment

Human Rights

Society

Product Responsibility



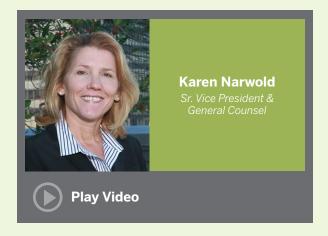
### Governance, Commitments and Engagements

ALBEMARLE IS PART OF A DIVERSE, CHANGING GLOBAL ECONOMY.

To consistently achieve the kind of economic, environmental and social performance that's expected of us—and that we demand—we must operate a unified, principled company. It begins with leadership and management's full commitment to ethics, integrity and accountability. And it continues throughout the company and beyond, from the Albemarle Code of Business Conduct, to the personal responsibility enabled through the *My Albemarle* program, to the active role our stakeholders play in shaping what we do.

### Management Approach

Albemarle utilizes various methods to ensure compliance with the various laws and regulations that govern the way we operate and conduct business around the globe. We place particular emphasis on training and educating our employees to ensure they understand the laws of the jurisdiction they will be working in and to ensure they share Albemarle's values. We want to make sure we have the right people doing the right things every day. As we look to expand into



developing and emerging markets, we are working to ensure understanding of and compliance with laws and regulations of these areas. For employees who have an ethics issue, complaint or comment, Albemarle has established the Integrity Helpline. We encourage our employees to use this confidential system to voice concerns, and those concerns are investigated and resolved.

**4.1** Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight

### 4.1.1 BOARD OF DIRECTORS

Members of Albemarle Corporation's board of directors are elected annually by Albemarle's shareholders to oversee management and to act in the best interest of the Company and our shareholders.

#### 4.1.2 ETHICAL BUSINESS PRINCIPLES

All Company employees, officers and directors understand the importance of and our commitment to conducting business with integrity. Our board members set the standard for following the highest ethical conduct and

sound business practices. The Nominating and Governance Committee periodically reviews the Company's Code of Business Conduct, including related polices. Management regularly reports to the Committee about implementation of and adherence to these guiding policies.

### 4.1.3 BOARD COMPOSITION

Given the current size of the Company and the nature of our business, a board consisting of seven to 12 members is appropriate.

There is no specific mandate governing the board's composition, however the Company's Corporate Governance Guidelines require a majority of the directors to be independent. Currently, the board has 10 members, all independent except for our CEO. Of those 10 members: (i) 90 percent are over 50 years old, and 10 percent are 30-50 years old; (ii) 20 percent are female; and (iii) 10 percent represent an ethnic minority. In order for the board to affirmatively determine a director as

"independent," the director candidate: (i) must be free of any relationship that, applying the rules of the New York Stock Exchange, would preclude a finding of independence and (ii) must not have a material relationship (either directly or as a partner, shareholder or officer of an organization) with the Company or any of our affiliates or any executive officer of the Company or any of our affiliates. In evaluating the materiality of any such relationship, the board of directors considers whether disclosure of the relationship would be required by the proxy rules under the Securities Exchange Act of 1934. If such disclosure is required, the board must then assess the relationship and determine whether it is a bar to finding a director candidate is independent.



### 4.1.4 BOARD COMMITTEES

The board of directors maintains the following four standing Committees: Audit, Executive Compensation, Nominating and Governance, and Health Safety and Environment. The board determined that each of the members of the standing Committees are: (i) "independent" within the meaning of the listing standards of the NYSE and the independence standards of our Corporate Governance Guidelines; (ii) "non-employee directors" (within the meaning of Rule 16b-3 under the Exchange Act); and

(iii) "outside directors" (within the meaning of Section 162(m) of the Internal Revenue Code of 1986, as amended).

### 4.1.5 RESPONSIBILITIES OF THE BOARD OF DIRECTORS AND COMMITTEES

The Company's Corporate Governance Guidelines lists responsibilities for the full board and its committees, including:

- Approve major corporate actions and oversee, develop and implement board policies;
- Review and approve financial plans, objectives and actions, including significant capital allocations and expenditures;
- Stay well-informed regarding our businesses and business strategies;
- Monitor and assess management's performance and execution of corporate plans and objectives and ask appropriate questions of management to address accountability with established goals;
- Be a partner with management on strategic issues by advising and consulting;
- Oversee our legal compliance programs and procedures;
- Assess the effectiveness of our health, safety and environment programs and initiatives;
- Be proactive in crisis situations;
- Appraise our major risks and oversee that appropriate risk management and control procedures are in place, and that management takes the appropriate steps to manage our major risks;
- Determine through our Audit Committee that appropriate procedures are in place to promote integrity and candor in the audit of our financial statements and operations, and in all financial reporting and disclosure;
- Assume responsibility for the selection, evaluation, monitoring, retention, compensation and succession of the chairperson of the board and the chief executive officer (CEO);

- Recruit effective new members to the board and recommend director nominees for election by our shareholders (recruiting efforts to be led by the Nominating and Governance Committee with support from management); and
- Establish proper governance, which includes a periodic review of these Corporate Governance Guidelines by the Nominating and Governance Committee; the consideration by such Committee of other corporate governance issues and related matters; and any resulting recommendation by such Committee as to the governance issues that should be addressed by the board.

#### 4.1.6 CHIEF EXECUTIVE OFFICER SUCCESSION

The chief executive officer succession planning process includes a regular board review. Any review of possible internal candidates includes:

- Readiness and potential;
- · Demonstrated skills and competencies;
- Needed experience and training to fill gaps; and
- Plan for adequate exposure to the board of directors.

### **4.2** Indicate whether the chair of the highest governance body is also an executive officer

Jim W. Nokes is the Company's nonexecutive chairman of the board and an independent director.

# **4.3** For organizations that have a unitary board structure, state the number of members of the highest governance body that are independent and/or non-executive members

As of April 2013, nine of the Company's 10 Board members are independent and non-executive members.

# **4.4** Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body

Shareholders and employees may communicate with the board of directors by sending written correspondence to the chair of the Nominating and Governance Committee c/o Albemarle Corporation, 451 Florida St., Baton Rouge, La 70801 or by email at

governance@albemarle.com. Communications regarding financial and accounting matters may also be sent directly to the Audit Committee at audit chair@albemarle.com.



4.5 Linkage between compensation for members of the highest governance body, senior managers and executives (including departure arrangements), and the organization's performance (including social and environmental performance)

Approximately 50 percent of the board of director compensation, and approximately 45-70 percent (depending upon the executive in question and the assumptions made) of senior executive total compensation is linked to the performance of Albemarle stock, which reflects company financial and non-financial performance over the long term. Given that we are a specialty chemical company that has to comply with or exceed certain environmental and safety standards to be able to operate and grow, we believe share price for companies like ours reflects non-financial factors such as our long-term track record around environmental stewardship and safety performance. Additionally, the Annual Cash Bonus plan for our Senior executives (comprising

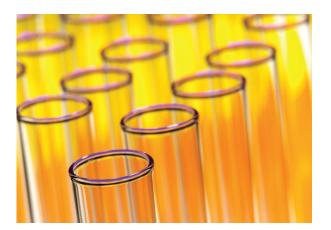
approximately 15-20 percent of their total compensation, depending upon the executive in question and the assumptions made) is also performance-based, with environmental and safety performance included in the set of performance measures set each year by the board of directors.

## **4.6** Processes in place for the highest governance body to ensure conflicts of interest are avoided

There are two specific processes in place to prevent conflicts of interests. The first is the board's related person transaction policy, which governs the review, approval or ratification of related person transactions. The policy, managed by the Audit Committee, generally provides that a director, among other covered persons, may enter into a related person transaction only if: (i) the Audit Committee or the disinterested members of the board of directors approves or ratifies such transaction in accordance with the guidelines set forth in the policy, (ii) the transaction is in, or not inconsistent with, the best interests of the Company and our shareholders, and (iii)



the transaction is on terms comparable to those that could be obtained in arm's length dealings with an unrelated third party; or the transaction involves compensation approved by our Executive Compensation Committee. The second process, managed by the Nominating and Governance Committee, reviews any requests by the CEO to serve as a director on another public company's board. In no event shall the CEO serve on more than two public company boards of directors, in addition to serving on his or her own board. The Nominating and Governance Committee must be notified of the intention of directors, the CEO and other senior managers to serve on another board of directors, and the Nominating and Governance Committee will then review the possibility for conflicts of interest and time constraints. In addition to the two specific processes described, there are other processes in place to avoid potential conflicts of interest, including the Company's annual Director and Officer questionnaire, which poses questions designed to enable the Company to assess potential conflicts of interest and the Corporate Governance Guidelines requirement that each director notify the Chair of the Nominating and Governance Committee of any conflicts or potential conflicts of interest.



# **4.7** Process for determining the qualifications and expertise of the members of the highest governance body for guiding the organization's strategy on economic, environmental and social topics

The Nominating and Governance Committee identifies and evaluates all candidates for the board of directors in accordance with the director qualification standards described in the Corporate Governance Guidelines. The board of directors as a whole is constituted to be strong in its diversity and collective knowledge of a wide range of issues including, but not limited to: accounting and finance, management and leadership, vision and strategy, business operations, business judgment, crisis management, risk assessment, industry knowledge, corporate governance and global markets. The Nominating and Governance Committee reviews its effectiveness in balancing these considerations through ongoing consideration of directors and nominees, as well as the Nominating and Governance Committee's annual selfevaluation process.

The Nominating and Governance Committee evaluates a candidate's qualifications to serve as a member of the board of directors based on the background and expertise of individual members, as well as the background and expertise of the board as a whole. The Nominating and Governance Committee also considers other relevant factors as it deems appropriate, including the current composition of the board of directors, the balance of

management and independent Directors, the need for Audit Committee expertise and the evaluation of other prospective nominees.

**4.8** Internally developed statements of mission or values, codes of conduct and principles relevant to economic, environmental and social performance and the status of their implementation



Albemarle drafted and adopted a Values and Mission Statement and a Code of Business Conduct, available on the Company's website at <a href="https://www.albemarle.com/Investors/Corporate-Governance/Code-of-Business-Conduct-212.">www.albemarle.com/Investors/Corporate-Governance/Code-of-Business-Conduct-212.</a>
<a href="https://www.html">httml</a>. The Values and Mission Statement is summarized below:

### VALUES AND MISSION: THE ALBEMARLE PRINCIPLES

Our Mission is to be the best performing specialty chemical company by all metrics and standards through our principles of:

Integrity — Unwavering commitment to truth, candor and objectivity; It is imperative that we operate our business in a simple, clear, transparent and honest manner.

Stewardship — Uncompromising with regard to quality and safety; We will operate our plants and run our business in a way that respects the environment and protects the health and safety of our stakeholders.

Planning — Designing a sustainable future by taking initiative with our thoughts, words and capital to validate our future condition and vision.

**Discipline** — Targeting the achievement of perfection based on solid execution, built on learning, training and restraint.

Innovation — Challenging the status quo, thinking differently and driving creativity to solve the problems that drive value. Past success does not necessarily lead to future success. Our stakeholders are counting on us.

Customer Fulfillment — Meeting and exceeding our customers' expectations to solve problems and provide seamless supply of our products and services. The key to leadership in our strategic markets is customer service. Our front-line people put a face on our business and have tremendous influence. If they are tenacious, aggressive and proactive, our leadership will continue. Leadership is earned, not tenured, and must never be taken for granted.



Communication — Communicating openly, honestly and frequently in an active two-way process, is essential to success. Our leadership will listen to our stakeholders in an environment where all of our stakeholders feel they will be heard without repercussion. Good communication means where the organization is going and how it plans to get there. In this manner, we can align our team to achieve our objectives.

Teamwork — Manifesting great teamwork through hard work, high energy, enthusiasm and innovation. Positive mental attitude and trust make teamwork sustainable. Our business will thrive led by people who truly enjoy what they do, are excited by the challenges and are energized by the possibilities.

In addition, the company has developed a global policy describing our philosophy toward Health, Safety, Security and Environmental Stewardship:

#### **GOVERNANCE AND SAFETY STEWARDSHIP**

We will take personal responsibility for safety and are committed to insuring that we cause no harm to ourselves, our co-workers or the communities in which we operate. Our goal is to maintain an incident-free, secure and healthy workspace. Working in a safe, secure and environmentally responsible manner is an inherent part of our jobs and a condition of employment for each of us. We will comply with all applicable legal requirements and company policies and procedures. Each of us will take appropriate steps, including discontinuing operations if necessary, to correct actions and conditions before they lead to incidents, and no one will undertake any task unless it can be done in a safe and environmentally responsible manner. We adhere to the principles and

expectations of Responsible Care® in our daily operations.

#### SOCIAL RESPONSIBILITY

We will extend our health, safety, security and environmental philosophy beyond the workplace and seek opportunities to advocate this philosophy in our neighborhoods, in transit and at home. We will endeavor to make a positive impact in our communities through the Albemarle Foundation™ and actively support the cornerstones of sustainability: education, health and social services, cultural initiatives and volunteerism.

### GREEN CHEMISTRY PRINCIPLES AND ENVIRONMENTAL OBLIGATIONS

We will strive for continuous improvement in health, safety, security and environmental performance and will measure our performance against the best-performing companies.

We will reduce emissions caused by our operations by optimizing raw material, energy and water usage. We will be responsive to the concerns of our stakeholders and actively seek participation by them in our programs.

We will continually search for innovative and sustainable ways to develop solutions that meet environmental and societal needs today and for generations to come.

### PEOPLE AND DEVELOPMENT

Our people are our greatest asset. We will invest time, energy and money to ensure that the people have the necessary understanding, education, expertise and training to perform tasks in a safe and environmentally responsible manner. We will improve the future by learning from the past. Our facilities will share experiences and lessons learned with each other, and we will implement across our sites. We will empower people to prevent accidents or incidents before they happen.

#### FINANCIAL PERFORMANCE

We will do the right thing from a health, safety, security and environmental standpoint, and doing so will benefit our employees, communities, customers and other stakeholders. We will invest in improvements at our facilities to ensure compliance with HS&E policies and standards and to improve operational efficiencies. Incremental savings are never justified when there is potential risk to people, property or products. We will continue to seek wise investments that promote improved processes while ensuring positive health, safety, security and environmental impact for all of our stakeholders.

4.9 Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct and principles

To assist in its oversight responsibilities, the board of directors maintains the following four Committees comprised entirely of independent directors: Audit, Executive Compensation, Nominating and Governance, and Health Safety and Environment. Additionally, management designed an Enterprise Risk Management ("ERM") process led by the Company's senior vice president and chief financial officer, and managed by an ERM Committee with cross-

functional representation by senior Company leaders worldwide. The ERM Committee meets quarterly to identify, discuss and assess Company-wide risks and develop action plans to mitigate those risks categorized as having the largest potential financial, reputational and/ or health, safety or environmental impacts—all of which are included in an ERM quarterly report. The Chief Risk Officer (or other ERM Committee members) regularly reports to the Audit Committee, generally highlighting those risks identified as the most significant, reviewing the Company's methods of risk assessment and risk mitigation strategies, and updating the Audit Committee on issues the ERM Committee identified as possible emerging risks. The Audit Committee engages in regular periodic discussions with the chief risk officer and other members of the ERM Committee, as appropriate.

The Audit Committee reports to the full board of directors on risk oversight, among other matters. Additionally, the board of Directors receives quarterly a copy of the ERM Committee's reports and annually a detailed report from the chief risk officer in which the Company identifies our risk areas and oversight responsibility. The board of directors also engages in periodic discussions with the chief risk officer and other members of the ERM Committee, as appropriate.

While the Audit Committee is responsible for, among other matters, general ERM, the full board of directors and each of the other standing board committees considers risks within its area of responsibility. The board of directors oversees corporate strategy, business development, capital structure, market exposure and country-specific risks. The Executive

Compensation Committee considers human resource risks and potential risks relating to our employee (including executive) compensation programs. The Nominating and Governance Committee considers CEO succession planning, intellectual property and governance risks. The Health, Safety and Environment Committee considers the effectiveness of our health, safety and environment programs and initiatives. The Health, Safety and Environment Committee also assists the board of directors with oversight of matters related to the enhancement of our global reputation, our corporate social responsibility and the stewardship and sustainability of our products. Each of the Committees regularly reports to the board of directors.

# **4.10** Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental and social performance

The Nominating and Governance Committee coordinates an annual evaluation process by the directors of the board's performance and procedures. This self-evaluation leads to a full board discussion of the results.

The chair (or the Lead Independent Director) informally consults with each of the directors as part of the evaluation. The qualifications and performance of all board members are reviewed in connection with their re-nomination to the board.

The Nominating and Governance Committee, the Audit Committee, the Health, Safety and Environment Committee and the Executive Compensation Committee each conduct an annual self-evaluation of their performance and procedures, including the adequacy of their charters and make recommendations, if any, to the board as to proposed changes to their charter resulting from such review.

## **4.11** Explanation of whether and how the precautionary approach or principle is addressed by the organization

Albemarle Corporation actively implements many procedures and programs that use the precautionary approach or principles. Examples of such are:

- · Whistleblower policy
- · Corporate Code of Conduct
- RC14001
- Sustainable Development Policy
- · GRI
- · Emissions Trading in EU
- Community involvement (natural disaster relief as an example)
- Technology innovation
- VECAP



### **4.12** Externally developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes or endorses

Initiative	Date of adoption	COUNTRIES	Stakeholders involved in development and governance	Voluntary/ Mandatory
ACC and Responsible Care®	1988	United States	American Chemistry Council and member companies	Voluntary
VECAP™	2006	EU, US, Japan, China, South Korea	Albemarle Corporation and other brominated flame retardant companies	Voluntary
ISO 9001, ISO 9002 and ISO 14001	Varies by facility	US, UK, Jordan, China, Austria, Germany, the Netherlands	International Organization for Standardization and is administered by accreditation and certification bodies	Voluntary
RC14001	2005	United States	American Chemistry Council and member companies	Voluntary

4.13 Memberships in associations (such as industry associations) and/or national/international advocacy organizations in which the organization: \*Has positions in governance bodies; \*Participates in projects or committees; \*Provides substantive funding beyond routine membership dues or \*Views membership as strategic

American Chemistry Council (ACC)

Alliance of Consumer Fire Safety Europe (ACSFE)

Arkansas Electric Energy Consumers, Inc. (AEEC) Arkansas Gas Consumers, Inc. (AGC)

Alliance for Polyurethane Industry (API)

American Board of Industrial Hygiene (ABIH)

American Chemical Society

American Industrial Hygiene

Association (AIHA)

American Institute of Chemical

Engineers (AIChE)

American Society of Materials (ASM)

American Society of Quality (ASQ)

American Society of Mechanical

Engineers (ASME)

Arkansas Environmental Federation

Arkansas State Chamber Of Commerce

Associated Industries Of Arkansas

#### 4.0 GOVERNANCE, COMMITMENTS AND ENGAGEMENTS

Association of the German Chemical European Flame Retardant Association (EFRA) Industry (VCI) European Petrochemical Association (EPCA) Association of Water Technologies (AWT) European-American Business Council Board of Certified Safety Professionals (BCSP) European Oilfield Specialty Chemical Association Bromine Science and Education Foundation (BSEF) Freight Transport Association (FTA) Council of Industrial Boiler Owners (CIBO) Greater Baton Rouge Industrial CEFIC European Chemical Industry Alliance (GBRIA) **CEFIC** Board High-Density Packaging Users Group (HDPUG) CEFIC Fine, Specialty and Consumer Chemicals International Association of Electronics Recyclers (IAER) CEFIC Plastic Additives Institute of Management Accountants CEFIC Sector groups such as ECMA, (IMA/USA) EBFRIP, EFRA, ELISANA Institution of Occupational Safety Channel Industries Mutual Aid (CIMA) and Health (IOSH) ChemITC Institute for Clean Air Companies (ICAC) Chemical Industries Association International Electronics Manufacturers Initiative (iNEMI) China Plastics Processing Industry Association (CPPIA) International Antimony Association Citizens for Fire Safety International Society of Pharmaceutical Engineers Community of Character Association Connecting Electronics Cooling Technology Institute (CTI) Industries (IPC) Drug, Chemical and Associated La Porte Citizens Advisory Council Technologies (DCAT) La Porte Local Emergency Planning East Harris County Manufacturers Committee (LEPC) Association (EHCMA) Local Emergency Planning Committee (LEPC) European Catalyst Manufacturers

Louisiana Chemical Association (LCA)

Association (ECMA)

#### 4.0 GOVERNANCE, COMMITMENTS AND ENGAGEMENTS

Louisiana Engineering Society (LES)

Magnolia Chamber Of Commerce

Magnolia Economic Development Commission

Materials Technology Institute (MTI)

Modified Plastics Professional Committee

National Association of Corrosion Engineers (NACE)

National Association of Manufacturers (NAM)

National Petrochemical and Refiners Association (NPRA)

National Society of Professional Engineers (NSPE)

Ningbo Intellectual Property Association

Ningbo Petroleum Chemical Association

Ninghai Commercial and Industrial Association

Orangeburg County Chamber of Commerce

Portland Cement Association (PCA)

Phosphate Ester Flame Retardant Consortium (PEFRC)

Petroleum and Chemical Industry Committee (PCIC)

Polyurethane Foam Association

Regulatory Affairs Professional Society

Society of Human Resource Management

Society of Maintenance and Reliability Professionals (SMRP)

Synthetic Organic Chemical Manufacturers Association (SOCMA) South Carolina Chamber of Commerce

Texas Chemical Council

Dutch Catalysis Research Institute (VIRAN)

Water Environment Association of South Carolina

Wildlife Habitat Council (WHC)

### **4.14** List of stakeholder groups engaged by the organization

Stakeholder groups identified and engaged by Albemarle:

- Customers
- Shareholders
- Employees
- Retirees
- · Communities in which we operate
- Consumers
- Suppliers
- ENGOs
- Industry and trade associations
- Media
- Investment groups
- Governments and regulators





### **4.15** Basis for identification and selection of stakeholders with whom to engage

Engagement with identified stakeholders is imperative to business success. We work to select stakeholders that:

- Are impacted by the decisions that Albemarle makes; and
- Impact Albemarle by decisions that they make

By using this focus for engagement, we close the loop by including:

- Users of our products and their supply chain (customers and suppliers);
- Those who are impacted directly and indirectly by our choices (employees, retirees, communities in which we operate, etc.);
- Those who choose to invest in our company (shareholders, investment groups, etc.);
- Experts and stakeholders in the areas we operate (industry and trade associations, governments and regulators, ENGOs); and
- Downstream users and spokespersons (consumers, media).

We work to select particular groups to interact with those that have specific needs, concerns and solutions. Ongoing dialogue and communication with these groups provides insight into what we can do to enhance our focus and improve our processes throughout the organization.

# **4.16** Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group

Albemarle regularly engages each of our stakeholders in order to maintain strong relationships, share information and gather feedback. Depending on the stakeholder group, the method and frequency of engagement varies.

#### **EMPLOYEES AND RETIREES**

Albemarle regularly communicates company initiatives, news, goals and performance to employees through our intranet, our website, quarterly mangers' calls, written memos and face-to-face meetings. The intranet and website are maintained daily. Written memos are sent as needed, but at least quarterly. Performance updates and calls with managers are made at least quarterly. In addition, in 2007, Albemarle formed the Albemarle Foundation, a 501(c)(3) nonprofit organization aimed at energizing employee donations of time, resources and money to community-based initiatives. Employees serve on an advisory board in each Company location, where they oversee the Foundation's activities in that region, and employees vote on where monies are to be distributed.

#### COMMUNITIES IN WHICH WE OPERATE

Each site continues to develop strong relationships by donating funds and infrastructure towards community initiatives focused on the areas of education, environmental sustainability and charitable contributions. In 2007, Albemarle formed The Albemarle Foundation, a 501(c)(3) nonprofit

organization, to direct these employee efforts. Since inception, donations of time and money have increased each year, and the footprint of the Foundation now covers each community in the U.S. where we operate. Albemarle provides both paid and unpaid employee volunteer services, as well as retiree employee volunteer services. We open our gates at times to give area citizens insight into our facilities and operations. We provide technical assistance by joining forces to protect communities and loan talent by mentoring with real-life role models to a variety of community organizations. Albemarle provides in-kind gifts in a variety of ways, such as donating 100 percent of materials for various Habitat for Humanity projects.

In addition, sites conduct Community
Advisory Panels under the Responsible Care
Management System, where site leaders and
employees meet regularly with members of the
community. The meetings are geared toward
keeping the community informed
of our operations, our performance and
important initiatives, as well as gathering
feedback and suggestions from the local
community members.

#### SHAREHOLDERS AND INVESTMENT GROUPS

The company holds quarterly earnings calls that are open to the public. The main participants are employees, shareholders, investment groups and analysts. During the calls, senior leaders report on the company's financial performance and major strategic initiatives. The calls further increase our visibility and transparency.

### MEDIA REGULATORS, CUSTOMERS AND SUPPLIERS

In addition to quarterly earnings calls, which are open to all groups, Albemarle staff host regular communications via phone, email or in-person meetings with government and regulators worldwide to help ensure that the Company is focusing on the most significant regulatory concerns. Monthly interaction happens via phone or meetings with customers and suppliers to discuss issues of concern (supply/demand issues, methods to reduce product emissions, regulatory issues, etc.)

We work with industry and trade associations on a regular basis (at least every month) to understand the needs and issues of their membership. Albemarle interacts with ENGOs at various meetings, approximately every 1-2 months, to try to better understand their areas of concern and focus.

In addition, Albemarle routinely distributes press releases geared toward trade media, customers, regulators and/or suppliers. These news releases report on strategic initiatives, pricing and significant Company developments.

**4.17** Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting

In 2012, Albemarle Corporation spent approximately \$4.375 million on toxicology tests, attorney and expert fees, public relations and advertising, and lobbying related to protecting, defending and sustaining our businesses, processes, products and the communities in which we operate. Our advocacy efforts are focused primarily on defending the science upon which our

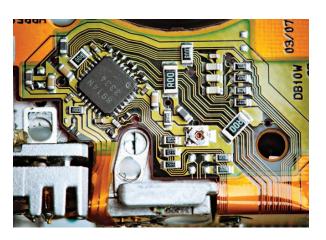
#### 4.0 GOVERNANCE, COMMITMENTS AND ENGAGEMENTS

chemistry solutions are based, as well as promoting sustainable solutions to global challenges. In addition, we are also protecting our customers' businesses and advocating for clean energy sources for the world and communities in which we operate. Examples of some of our primary areas of focus in 2012 are:

- Development of and promotion of advanced solutions for industries with mercury control challenges Through developing and promoting the use of our mercury control technologies, we not only help customers solve challenges with regulatory compliance, but we also promote environmentally friendly solutions in response to concerns from our community members and global stakeholders;
- Support of increased fire safety standards with industry organizations and national regulatory bodies;
- Promotion of a new chemical regulatory framework to replace Toxic Substances Control Act (TSCA) in the United States; and
- Advocacy and support of our mineral- and bromine-based flame retardants.

Albemarle advocates the use of science-based chemical regulatory processes in preference to product specific legislation. Through our advocacy efforts and our community relations efforts, we seek to not only gather feedback from multiple stakeholder groups, but also to educate these stakeholders (government agencies, regulators, community members) on the merits of our science-based solutions and the positive impacts they have on the world in which we live and operate. However, societal concerns addressed by multiple stakeholders about certain chemicals are of particular concern to Albemarle. We have had research programs underway to develop alternatives for both HBCD and decabrom. Our criteria for new polymer additive products are that in addition to meeting economic and performance requirements, they must be non-toxic, non-bioaccumulative and facilitate recycling.

In December 2009, Albemarle announced a voluntary program to withdraw decabrom from the market in cooperation with the U.S. Environmental Protection Agency. At this time, we announced the development of our GreenArmor™ flame retardant, a new polymeric and highly sustainable alternative to decabrom. Commercialization of GreenArmor™ flame retardant is in progress. We continue to work on transitioning customers from decabrom to alternative products as quickly and smoothly as possible.



In May 2012, Albemarle introduced GreenCrest<sup>™</sup> flame retardant, a stable, high-molecular weight polymeric flame retardant designed as a replacement for HBCD in extruded and expanded polystyrene applications.

Albemarle Corporation is dedicated to the principles of Green Chemistry and Green Engineering, which is in line with discussions with multiple stakeholders (customers, consumers, ENGOs, government and regulators, and media). We collaborate with the Green Chemistry Institute of the American Chemistry Society, work to implement green metrics in our R&D organization, participate

in chemical industry roundtable discussions and have experts in Green Chemistry speak at various internal meetings and workshops. We sponsor corporate awards, the Albemarle Sustainability Awards and the TEAL (Technology Emphasis on Albemarle's Green Chemistry) Awards, given annually to selected Albemarle employees who implement sustainable practices and improve the awareness and adoption of Green Chemistry and Engineering principles within the company. The Albemarle HSE Sustainability Awards were created to recognize location-specific teams for the amazing ingenuity and results they produce

each year. The categories include: Waste Reduction, Wildlife Habitats, Community Initiatives, Energy/Greenhouse Gas Reductions, Emission Reductions, Water Conservation and Office Activities. Each Albemarle site features a TEAL team, which promotes the principles of Green Chemistry and Engineering and educates the technical community on green metrics. The TEAL Awards recognize four outstanding contributions across three categories: Waste, Energy and Emission Reduction, New Green Process and New Green Product.

#### **HSE Sustainability Awards**

This annual award recognizes Albemarle sites that have made significant innovations in reducing waste, eliminating emissions and working in and with our communities. Among the 2012 winners:

#### **ENERGY IMPROVEMENTS**

- Winner: JBC Bromine Tower
- **Second**: South Haven Regenerative Thermal Oxidizer
- Third: Orangeburg CO2 Sequestration

#### **WASTE REDUCTION**

- Winner: Bayport Alumina Solids Capture
- Second: Amsterdam Waste Stream Conversion
- Third: South Haven Solvent Elimination

See more 2012 winners in the Environmental Indicators and Society sections of this report.





#### **Economic Indicators**

#### FINANCIAL PERFORMANCE BUILDS A CRITICAL FOUNDATION.

As a market leader, we know how important it is to perform today while anticipating changing global needs and positioning the company to take advantage of future opportunities. Solid revenues, disciplined cost reduction, improved productivity and a strong balance sheet enable us to do two things essential to our sustainability-focused business: to reward our investors for their trust and confidence, and to fuel future innovation for the greater good of our customers, society and the environment.

#### Management Approach

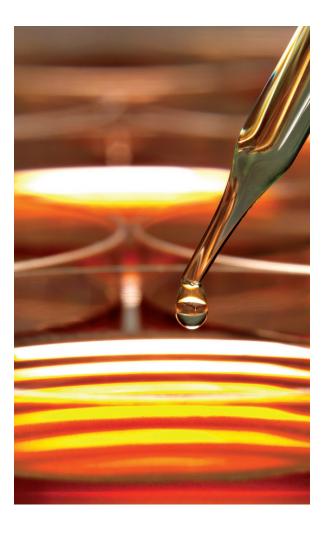
Albemarle focuses on innovative products, a global approach and a diverse product set around the world, as well as innovative people, in order to ensure that we continue to grow and have excellent cash flow for ongoing success. We believe that our commercial and geographic diversity, technical expertise, innovative capability, flexibility, low-cost global manufacturing base, experienced management team and strategic focus on our core base technologies will enable us to maintain



leading market positions in those areas of the specialty chemical industry in which we operate. We believe our disciplined cost reduction efforts, ongoing productivity improvements and strong balance sheet position us well to take advantage of strengthening economic conditions while softening the negative impact of any temporary disruption in the economy. Our strong balance sheet is a critical component of making sure we can handle those uncertainties.

**EC1** Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments

	(thousands)
Revenues	\$2,745,420
Operating costs	\$2,019,568
Wages/benefits	\$308,861
Payments to providers of funds	\$100,257
Donations/community investments*	\$10,827
Economic value retained	\$174,060

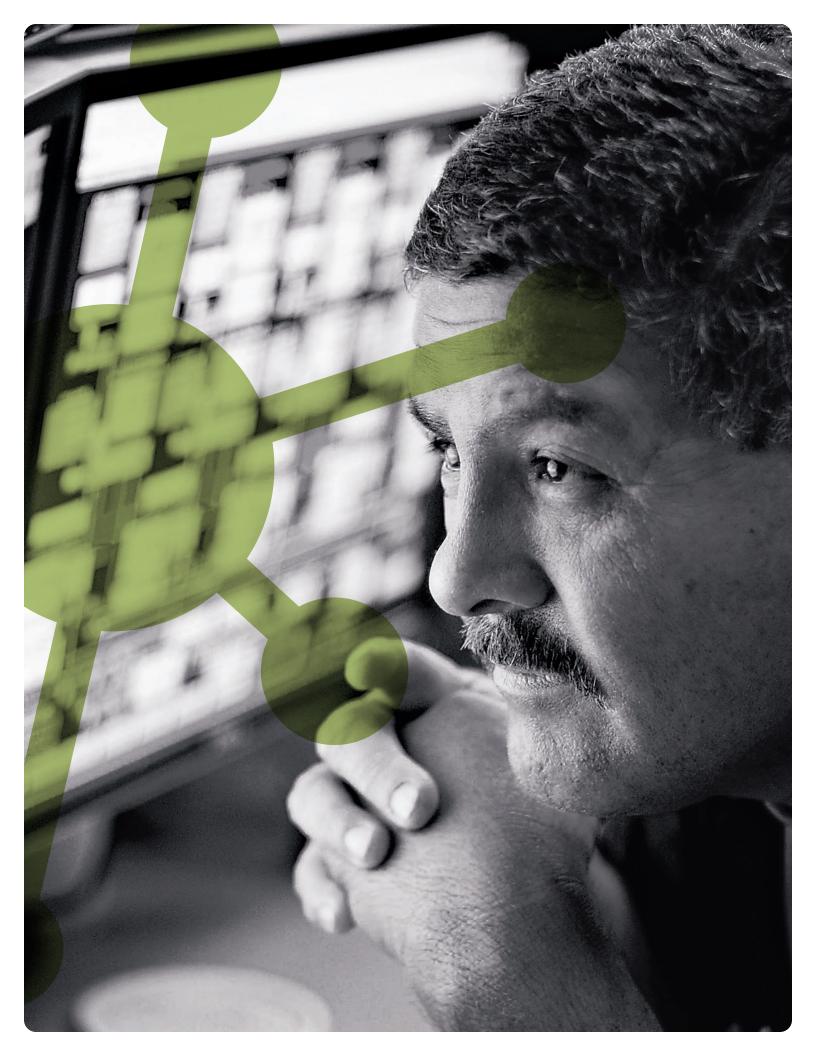


# **EC2** Financial implications and other risks and opportunities for the organization's activities due to climate change

Growing concerns about climate change may result in the imposition of additional regulations or restrictions to which we may become subject. Climate changes include changes in rainfall and in storm patterns and intensities, water shortages, significantly changing sea levels and increasing atmospheric and water temperatures, among others. For example, there has been increasing concern regarding the declining water level of the Dead Sea, from which our joint venture, JBC, produces bromine. A number of governments or governmental bodies have introduced or are contemplating regulatory changes in response to climate change. For example, some of our operations are within jurisdictions that have, or are developing, regulatory regimes governing greenhouse gas emissions. Potentially, some form of U.S. federal regulation will be forthcoming with respect to greenhouse gas emissions (including carbon dioxide [CO2]) and/or "cap and trade" legislation. In addition, we have operations in the European Union, Brazil, China, Japan, Jordan, Saudi Arabia, Singapore and the United Arab Emirates, all of which have implemented measures to achieve objectives under the Kyoto Protocol, an international agreement linked to the United Nations Framework Convention on Climate Change, which set binding targets for reducing greenhouse gas emissions. The first commitment period under the Kyoto Protocol expired in 2012. A successor global policy framework is under negotiation (the Doha climate change talks), but is not yet

accepted by all countries. The outcome of new legislation in the U.S. and other jurisdictions in which we operate may result in new or additional regulation, additional charges to fund energy efficiency activities or restrictions on certain activities. While certain climate change initiatives may result in new business opportunities for us in the area of alternative fuel technologies and emissions control, compliance with these initiatives may also result in additional costs to us, including, among other things, increased production costs, additional taxes, reduced emission allowances or additional restrictions on production or operations. Any adopted future climate change regulations could also negatively impact our ability to compete with companies situated in areas not subject to such limitations. Even without such regulation, increased public awareness and adverse publicity about potential impacts on climate change emanating from us or from our industry could harm us. We may not be able to recover the cost of compliance with new or more stringent laws and regulations, which could adversely affect our business and negatively impact our growth. Furthermore, the potential impacts of climate change and related regulation on our customers are highly uncertain and may adversely affect us.





#### EC3 Coverage of the organization's defined benefit plan obligations

See the <u>Albemarle 2012 10-K</u> for consolidated benefit obligations.

#### **EC4** Significant financial assistance received from government

#### CONSOLIDATED STATEMENTS OF INCOME

Program/Project Name	Funding received from	Funding for ALB \$
WBSO (tax incentive for R&D hours)	NL Government	528,066
RDA (Tax incentive for R&D investments)	NL Government	55,071
Biorefinery LNV (NL); py-oil quality improvement	NL Government	23,462
NAABB consortium	US - Dept. of Energy	265,526
Investment Yeosu plant	Korea - Min. of Knowledge and Economy	2,224,965

Exchange rate:

1 Euro = 1.29833 USD (March 8, 2013)

1 Korean Won KRW = .00091 USD (April 1, 2013)

#### An Effort with Heart

Albemarle Baton Rouge employees created a music video to raise awareness for Go Red for Women, an initiative of the American Heart Association that encourages women to learn the risks of heart disease, know the signs of heart trouble and take action to reduce personal risk. Titled "Geaux Red Style," the video puts an entertaining visual spin on Psy's wildly popular "Gangnam Style."



## **EC5** Range of ratios of standard entry-level wage compared to local minimum wage at significant locations of operation

Significant Location(s)	Name(s)	Lowest Level Wage	Minimum Wage	Ratio Entry- level Wage to Minimum Wage
Americas				
Baton Rouge, LA USA	Baton Rouge Tower	\$17.42/hr	\$7.25/hr	2.40:1
Baton Rouge, LA USA	Process Development Center	\$21.00/hr	\$7.25/hr	2.90:1
Houston, TX USA	Bayport	\$19.23/hr	\$7.25/hr	2.65:1
Houston, TX USA	Pasadena	\$21.01/hr	\$7.25/hr	2.90:1
Magnolia, AR USA	Magnolia	\$16.28/hr	\$7.25/hr	2.25:1
Orangeburg, SC USA	Orangeburg	\$15.73/hr	\$7.25/hr	2.17:1
South Haven, MI USA	South Haven	\$18.50/hr	\$7.40/hr	2.50:1
Twinsburg, OH USA	Twinsburg	\$17.50/hr	\$7.25/hr	2.41:1
Tyrone PA, USA	Tyrone	\$17.50/hr	\$7.25/hr	2.41:1
EMA				
Amsterdam, the Netherlands	Amsterdam	€1952/mo	€1469,40/mo	1.60:1
Avonmouth, UK	Avonmouth	£11.21/hr	£6.19/hr	1.81:1
Bergheim, Germany	Bergheim	€2657/mo	€1942/mo	1.37:1
Budapest, Hungary	Budapest	186.677HUF	93.000HUF	2.00:1
Louvain-la-Neuve, Belgium	LLN	€2127/mo	€1472.42/mo	1.44:1
Asia Pacific				
Nanjing, China	Nanjing	4950 RMB/mo	1320 RMB/mo	3.75:1
Beijing, China	Beijing	7000 RMB/mo	1260 RMB/mo	5.56:1
Dalian, China	Dalian	3000 RMB/mo	1100RMB/m	2.73:1
Shanghai, China	Shanghai	4370 RMB/mo	1450 RMB/mo	3.01:1
Jinshan, China	Shanghai	1450 RMB/mo	1450 RMB/mo	1.08:1
Ninghai, China	Ningbo	1720 RMB/mo	1310 RMB/mo	1.31:1
Seoul, South Korea	South Korea	3857200/KRW/ mo	957220KRW/ mo	4.03:1
Yeosu, South Korea	South Korea	5600 KRW/hr	4580 KRW/hr	1.22:1
Singapore	Singapore	7030 SGD/mo	N/A	N/A
Tokyo, Japan	Japan	2247.34 JPY/hr (150 hrs/mo)	850 JPY/hr	2.64:1



#### Planting Community Roots

Albemarle China's Jinshan, Dalian COE, Bejing, Guangzhou and Shanghai locations worked through the Community Roots China Initiative to raise money and collect supplies and gifts for kids in need at Bright Connection, a disabled children's adoption center.

## **EC6** Policy, practices and proportion of spending on locally based suppliers at significant locations of operation

Location	Total Spending by the Location	Albemarle Spending on Regional Suppliers	Albemarle Spending on Local Suppliers	
Americas (USD)				
Baton Rouge, Louisiana USA	72,446,326	48,930,324	37,080,186	
Houston, Texas, USA	76,746,687	85,638,444	53,272,645	
Magnolia, AR USA	79,055,421	76,902,059	29,001,892	
Orangeburg, SC USA	32,644,992	25,264,435	20,446,513	
Process Development Center, LA	37,679,636	21,963,579	16,057,707	
South Haven, MI USA	17,732,554	4,257,424	3,283,336	
Twinsburg, OH	172,465	129,399	93,193	
Tyrone, PA USA	21,406,321	13,409,855	8,498,192	
EMA (USD)				
Amsterdam, the Netherlands	38,293,355	37,282,253	33,030,645	
Avonmouth, UK	4,137,601	4,136,701	4,131,165	
Bergheim, Germany	32,656,915	32,519,405	31,882,553	
Louvain-la-Neuve, Belgium	4,746,679	4,727,861	3,970,242	
AP (USD)				
Jinshan, China	5,182,362	4,354,492	4,354,492	
Ningbo, China	1,897,741	1,897,741	1,897,741	
Nanjing, China	1,330,879	1,330,879	1,328,583	
Korea	40,732,173	40,054,614	40,050,867	
Tokyo, Japan	142,329	284,523	142,262	

Note: Starting 2012, the regional spend is reported as money spent per location for a given region.

# **EC7** Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation

Albemarle does not have a global policy for granting preference to local residents when hiring in significant locations of operations. As part of standard business practice, we review qualified candidates in local markets, as well as outer markets, to select the best candidates for positions.

Significant Location(s)	Name(s)	% Senior Management from Local Community
Americas		
Baton Rouge, LA USA	Baton Rouge Tower	30%
Baton Rouge, LA USA	Process Development Center	25%
Houston, TX USA	Bayport	25%
Houston, TX USA	Pasadena	40%
Magnolia, AR USA	Magnolia	25%
Orangeburg, SC USA	Orangeburg	28.5%
South Haven, MI USA	South Haven	80%
Twinsburg, OH USA	Twinsburg	100 %
Tyrone, PA USA	Tyrone	90%
EMA		
Amsterdam, the Netherlands	Amsterdam	95%
Avonmouth, UK	Avonmouth	100%
Bergheim, Germany	Bergheim	85%
Budapest, Hungary	Budapest	0%
Louvain-la-Neuve, Belgium	LLN	0.025%
Asia Pacific		
Nanjing, China	Nanjing	100%
Beijing, China	Beijing	100%
Shanghai, China	Shanghai	0%
Jinshan, China	Shanghai	100%
Ninghai, China	Ningbo	100%
Seoul, South Korea	South Korea	0%
Yeosu, South Korea	South Korea	0%
Singapore	Singapore	100%
Tokyo, Japan	Japan	100%

EC8 Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind or probono engagement

The Albemarle Foundation focuses on philanthropic efforts through monetary donations and volunteer efforts in the communities in which we live and operate. The local foundation councils strive to make their communities stronger with an emphasis in the areas of education, social health and cultural initiatives. In 2012, Albemarle Corporation transferred \$10.25 million to the Albemarle Foundation, including an \$8 million donation into the Foundation's endowment. In addition, Albemarle employees, retirees, and the board of directors donated \$646,000 in support of the annual community campaigns.











#### **Environmental Indicators**

BEING GOOD STEWARDS IS THE ESSENCE OF SUSTAINABILITY.

Environmental responsibility betters our world today and preserves the earth's resources for future generations. That's why Albemarle applies our passion for innovation not only to product development, but also to eliminating emissions; optimizing raw material, energy and water usage; and protecting the biodiverse lands near our operations across the globe. Continuously improving our environmental performance is essential to our mission—because we believe the production and use of our products should never create an environmental legacy.

#### Management Approach

### Green Chemistry Principle and Environmental Responsibility

Albemarle views its responsibility to the environment as one of its most paramount responsibilities as a corporation. This commitment is embodied in our HSSE (Health, Safety, Security and Environmental) policy and part of all our internal communications with employees. Our company focuses on opportunities to ensure a sustainable business model, as well as to support



our ability to provide innovative solutions to meet the needs of society.

Our responsibilities include measuring our health, safety and environmental performance and continually improving upon past performance. This commitment is simply essential to our mission and to our company's success. We will eliminate emission sources and optimize raw material, energy and water usage in our processes, and we will be responsive to the concerns of our stakeholders and seek active participation by them in these programs. While we are proud of our achievements and our products to date, we will continually seek innovative ways to ensure we maintain our focus on developing sustainable solutions that meet environmental and societal needs today and for generations to come.

#### Environmental Management System

A core part of our environmental stewardship is around our Environmental Management System. It's just not a slogan—it's something that goes from the operators to the mechanics and all the way up through our organization. The first part of the philosophy is that we're going to take care of the environment and take care of each other. We're going to produce products in a safe and sound manner. That means that the system encompasses getting their input and getting their commitment to making sure that, environmentally, we can operate in a safe and sound fashion. The management system applies to all Albemarle's operations worldwide and is third-party certified in the United States under RC14001:2008.

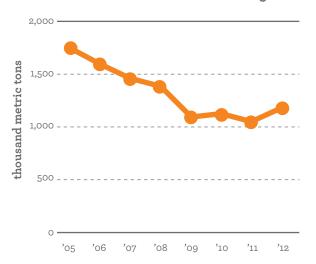
## **EN1** Materials used by weight or volume

Albemarle tracks the consumption of process raw materials, energy products and the natural mineral resource bromine for the purposes of this indicator. The volume of packaging materials used in manufacture and transportation is not tabulated. In 2012, Albemarle used a total of 1.16 million metric

tons of raw materials. This volume does not include materials transferred between production facilities or the use of water (see EN8). The majority of materials used are categorized as non-renewable. Albemarle produces specialty materials that have been shown to remove from 80 to more than 90 percent of the vaporous mercury from power plant smokestacks, on average. Activated carbon is a key raw material for these products.

In 2012, 693 tonnes of activated carbon was used from renewable sources.

EN1: Albemarle Material Usage



# **EN2** Percentage of materials used that are recycled input materials

A very small fraction of Albemarle's raw materials are "non-virgin" material. Recycled input materials account for approximately 0.06 percent of total raw material usage. Sales of refinery catalysts represent approximately one-third of Albemarle Corporation sales. In this division, a portion of the product is reprocessed for the customer as part of the purchase agreement. More information on this product is included in section EN27.

## **EN3** Direct energy consumption by primary energy source

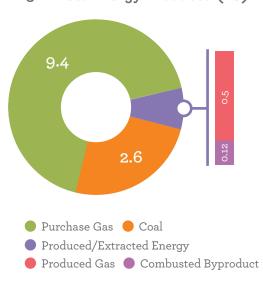
Albemarle's consumption of direct primary energy in 2012 was 12.6 petajoules (PJ) from manufacturing facilities. This includes 0.6 PJ of energy extracted or produced by Albemarle. The energy impact of distribution

of products and waste has not been assessed and is not included. Energy use at Albemarle Corporation non-manufacturing facilities (i.e., business offices) is small when compared to manufacturing facilities and is not included in this indicator. Business office greenhouse gas impact is shown in EN17. All direct primary energy used by Albemarle as defined by this indicator is classified as non-renewable. In a few instances, Albemarle transfers energy between co-located companies. This value is small and the data expressed above is net energy use by Albemarle.

EN3: Direct Energy Consumption by Primary Source (net PJ)



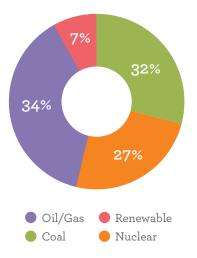
EN3: Direct Energy Produced (PJ)



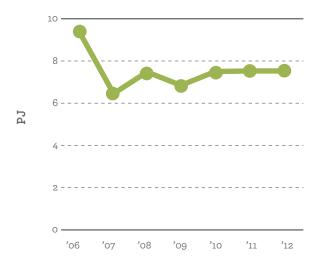
### **EN4** Indirect energy consumption by primary source

Indirect energy consumption for Albemarle results from two major intermediate energy sources: purchased electricity and steam. These intermediate energy uses totaled 7.5 PJ in 2012 from manufacturing facilities. Of the total, purchased electricity accounts for 6.9 PJ and purchased steam accounts for 0.6 PJ. Energy use at Albemarle Corporation nonmanufacturing facilities (i.e., business offices) are small when compared to manufacturing facilities and is not included in this indicator. Business office greenhouse gas impact is shown in EN17. In a few instances, Albemarle transfers energy between co-located companies. This value is small and the data expressed above is net energy use by Albemarle. Generation efficiencies used for this calculation are derived from U.S. Department of Energy and American Chemistry Council data.

EN4: Indirect Energy by Primary Energy Source



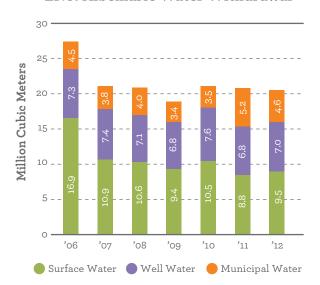
EN4: Albemarle Indirect Energy Use



## **EN8** Total water withdrawal by source

Albemarle's 2012 water withdrawal totaled 21.1 million m³. This total does not include the volume of salt brine that is extracted from and returned to the same deep strata at Albemarle's Magnolia, Arkansas, (US) facilities.

**EN8: Albemarle Water Withdrawal** 



## **EN9** Water sources significantly affected by withdrawal of water

There are no known significant negative impacts to water sources or related habitats resulting from Albemarle's withdrawal of water.

**EN11** Location and size of land owned, leased, managed in or adjacent to protected areas and areas of high biodiversity value outside protected areas



Bergheim Germany: The water outfall from the facility flows to the river Erft.

Orangeburg, SC: The facility borders the Edisto River. The facility manages 135 acres that are registered with the Wildlife Habitat Council.





Magnolia, AR: 100 acres of wetlands bank near West Plant where hard woods are planted. 50 acres of South Plant artificial marsh are registered with the Wildlife

Habitat Council. The West Plant has 20 acres of artificial marsh. 1500 acres of forest are managed for timber (paper or structural).

**Tyrone, PA:** Approximately 10 acres of the site are wetlands and the facility borders Cook Creek. The plant also has a Wildlife Habitat Council-registered site.



Amsterdam, the
Netherlands: The facility
is adjacent to the city
parkforest "Het Vliegenbos"
and the river IJ. "Natura
2000 areas" in the site's

vicinity: "IJmeer en Markermeer" (land and marshland).

Other facilities include:

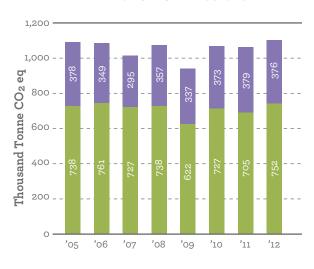
Location	Area of High Biodiversity or Protected Areas
Avonmouth, UK	The facility is close to the Svern Estuary, which has a protected status.
Jinshan, China	The Huanggu River is protected and is 300 m north of the facility.
Ningbo, China	The facility is located in a biodiversity area. Two "beauty spots" are 5.8 km and 4.6 km away.
Nanjing, China	The Changjiang River is approximately 4 km south of the Nanjing Chemical Industry park where the facility is located.
Pasadena, TX	The facility borders 35 acres of wetlands.
Process Development Center, Baton Rouge, LA	The facility borders Bayou Monte Sano
Sayerville, NJ	The site includes 16 acres located in the Raritan River watershed, of which approximately 7 acres are wetlands.
South Haven, MI	Lake Michigan is west of the facility.
Yeosu, South Korea	The facility is 3 km away from the forest around HeungKook Temple. This forest is designated as cultural asset preservation area by Yeosu City.

# **EN12** Description of significant impacts of activities, products and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas

The area identified in EN11 for Magnolia, Arkansas, has been positively impacted by the facility's actions. These areas include a 100acre tract of land that has been reforested. 70 acres of artificially created marsh (certified by The Wildlife Habitat Council) and 1,500 acres of land that is managed for timber. In 2009, the Wildlife Habitat Council named the facility a Corporate Lands for Learning location. The Orangeburg, South Carolina, facility has positively impacted 135 acres of property included above as part of registration to The Wildlife Habitat Council, Corporate Lands for Learning. The facility was invited to make a presentation of its efforts at the Wildlife Habitat Council Annual Meeting on November 10, 2009. The Tyrone, Pennsylvania, facility achieved a Wildlife Habitat Certification for its wooded uplands project. The Wildlife Habitat Council properties are maintained for natural habitat and educational purposes. The Amsterdam facility partnered with the Foundation W. H. Vliegenbos, a non-profit organization dedicated to preserving forested areas in North Amsterdam. No other impacts to the areas identified in EN11 have been identified.

# **EN16** Total direct and indirect greenhouse gas emissions by weight

Albemarle collects data on direct and indirect primary fuel consumption at manufacturing facilities for the purpose of determining greenhouse gas generation. In addition, data is also collected at our processing facilities on direct greenhouse gas generation from sources other than combustion of fuels. Factors for conversion of energy quantities to equivalent CO2 are derived from data published by The American Chemistry Council. Generation efficiencies used for this calculation are derived from US Department of Energy and American Chemistry Council data. The greenhouse gas impact of distribution of products and waste has not been assessed and is not included. Greenhouse gas impacts from Albemarle Corporation non-manufacturing facilities (i.e., business offices) are small when compared to those above. This data is included in EN17. The total direct and indirect greenhouse gas emissions for Albemarle in 2012 were 1.128.000 metric tons.



Direct Indirect

**EN16: GHG Emissions** 



## Building a Firm Foundation

Albemarle's commitment to Habitat for Humanity affords us the opportunity to support an international organization with local impact. Over the past year, employees from our Pasadena, Bayport and Clear Lake sites joined together to build a brand new residence for a deserving local family.

#### **HSE Sustainability Awards**

This annual award recognizes Albemarle sites that have made significant innovations in reducing waste, eliminating emissions and working in and with our communities. Among the 2012 winners:

#### TRI REDUCTIONS

 Winner: Orangeburg – Methylene Chloride Reduction

• Second: Orangeburg – Ammonia/Nitrate

wastewater freatment

• Third: Amsterdam – Nitrates Reduction

#### WATER CONSERVATION

• Winner: JBC – Brine Filtration Cleaning

• Second: Magnolia

#### **WILDLIFE HABITAT**

• Winner: Tyrone

See more 2012 winners in the Economic Indicators and Society sections of this report.

#### Preserving a Natural Wonder

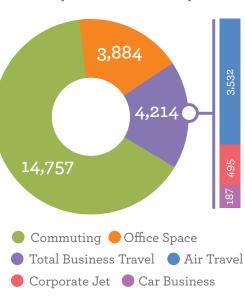
Not long ago, the brush and meadows at Albemarle Orangeburg's Hundred Acre Woods were strewn with trash and debris. Now, thanks to the efforts of Company volunteers and community partners, the area has been returned to its natural state—a genuine wildlife sanctuary for butterflies, birds, deer and more that draws a steady stream of students, families and groups annually.



# **EN17** Other relevant indirect greenhouse gas emissions by weight

Albemarle Corporation first began to collect information on other indirect greenhouse gas (GHG) emissions in 2007. Included in the analysis for 2012 is the GHG impact from business travel, employee commuting and Albemarle's major office complexes. These offices include the corporate headquarters in Baton Rouge, Louisiana, as well as offices in Clearlake, Texas; Tokyo; Shanghai; and Louvainla-Neuve, Belgium. These impacts are small in comparison with the GHG emissions presented in EN16 and are grouped together for this reason.

### EN17: Other GHG Emission (Metric Ton CO<sub>2</sub>)



## **EN19** Emissions of ozone-depleting substances by weight

In 2012, Albemarle's emissions of ozone-depleting substances consisted of R-11, and R-22. The 2012 emissions of ozone-depleting substances totaled 5.9 tonnes (0.3 tonnes CFC-11 equivalent).

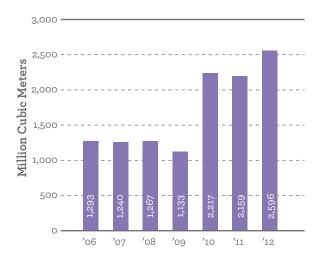
#### **EN19:** Ozone Depleting Substance Emissions



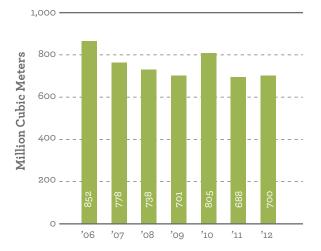
# **EN20** NOx, SOx, and other significant air emissions by type and weight

Albemarle tabulates NOx and SOx and Hazardous Air Pollutant (HAP) emissions at manufacturing sites for the purpose of this indicator. These values are based on a combination of calculations, measured values and permitted limits. NOx emissions in 2012 totaled 700 tonnes. SOx emissions totaled 2,596 tonnes. HAP emissions totaled 367 tonnes.

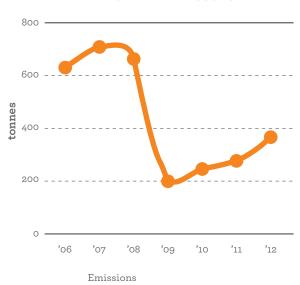
#### **EN20: Albemarle SOx Emission**



#### **EN20: Albemarle NOx Emission**



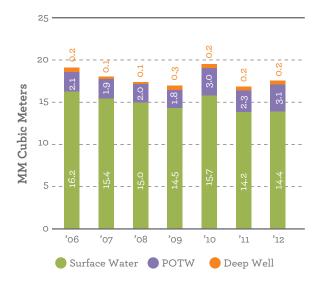
#### **EN20: HAP Emissons**



## **EN21** Total water discharge by quality and destination

Albemarle discharges water to three major destinations: surface water includes discharge to streams, rivers, lakes and marshes; publicly owned treatment works (POTW); and deep well injection. Not included in this indicator is the volume of salt brine that is extracted from and returned to deep strata at Albemarle's Magnolia, Arkansas, facilities. Albemarle is subject to various laws and regulation governing the discharge of water into the environment. Each discharge is in compliance and expected to remain in compliance with all applicable requirements. 2007 was the first year that rainfall was excluded from discharge volume during the information collection process. Rainfall accounts for a small portion of the total discharge volume; therefore, previous years' data were not corrected. Albemarle's 2012 return of water to the environment totaled 17.7 million cubic meters.

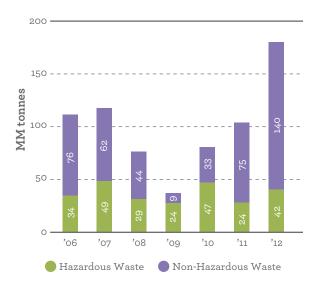
#### EN21: Albemarle Water Discharge



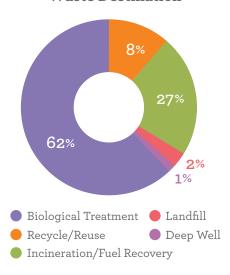
## **EN22** Total weight of waste by type and disposal method

Each Albemarle manufacturing site tabulates hazardous and non-hazardous waste generation. 2012 generation of hazardous waste was 42,366 tonnes. Non-hazardous waste generation in 2012 totaled 130,456 tonnes. The non-hazardous total does not include wastewaters. Albemarle facilities also recycled 5,247 tonnes of other materials such as metal and paper in 2012.

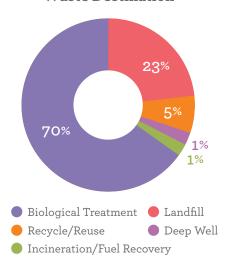
#### **EN22: Albemarle Waste Generation**



#### EN22: Hazardous Waste Destination



#### EN22: Non-Hazardous Waste Destination



## **EN23** Total number and volume of significant spills

Albemarle tabulates and records all spills and releases that cause serious off-site impacts. Significant spills include those incidents where there is major environmental impact or impact to employees or the public. Albemarle designates these spills as 'Level 3' events. Albemarle experienced no such events in 2012. Twenty-four (24) minor leaks occurred in 2012, none of which constitute Level 3 events.

# **EN26** Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation

VECAP™ is an innovative and excellencedriven way of doing business, based on ISO 14001 principles. It demonstrates the commitment of the industries involved to act in the interest of society and the environment, while enhancing the competitiveness of local industries. It offers all companies, regardless of size, equal access to the industry's expertise



#### **4.0** ENVIRONMENTAL INDICATORS

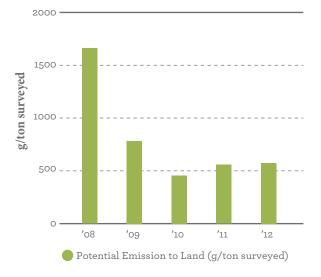
in environmental best practices, as well as procedures that drive continuous improvement, and it allows benchmarking for other industries to apply similar principles. VECAP uses basic tools to help users of chemicals understand where material is used and intentionally or unintentionally discarded. The VECAP process is fundamentally a continuous improvement system and is designed to be cost-effective and simple to implement.

Over the last five years, Albemarle has conducted VECAP surveys with our brominated flame retardant customers in China, Europe, Japan, Korea and North America. Approximately 86 percent of the volume sold in those regions or countries in 2012 was covered with surveys.

Potential emissions to air, water and land were estimated and recommendations were provided for the implementation of the best available techniques, which allow for reduction of these potential emissions. The main area of emission concerns highlighted through the surveys is the disposal of packaging waste. If incineration or chemically controlled landfill is not the method of disposal, the residues in the packaging are likely to end up in the environment. During the 2008 survey, ~1,800 g/ton of potential land emissions from residue in packaging waste was identified at numerous users. The graph below of the 2010 through 2012 surveys results worldwide show that the potential emissions to land have remained level since 2011. We anticipate improvements and reductions in potential emissions to land from newly participating users once recommendations and best practices have been implemented. Future surveys will capture these anticipated results. Albemarle's main manufacturing site

in Magnolia, Arkansas, is VECAP-certified by a third party. Our manufacturing plant in Jordan and our Process Development Center in Baton Rouge, Louisiana, are also VECAP-certified.

EN26: 2008-2012 VECAP Surveys Results Worldwide Data Acquired on 76 to 86% of the Total Volume Sold



EN26: 2008-2012 VECAP Surveys Worldwide Volume Coverage



#### MERCURY CONTROL FOR CLEANER AIR

In 2012, we continued our research projects focusing on new, renewable carbon sources for powdered activated carbon (PAC). We also deployed our Field Engineering team to commercially demonstrate the efficacy of our PAC treatment methodology in the coalfired electric generation market, as well as the Portland cement market.

On December 16, 2011, the Environmental Protection Agency (EPA) finalized the first-ever national standards to reduce mercury and other toxic air pollution from coal- and oil-fired power plants. Albemarle projects as many as 650 units will require activated carbon injection (ACI) to meet the new national standard for mercury stack emissions. Albemarle believes in ACI as a proven and dependable tool to remove air pollutants from our environment. It is an effective and cost-efficient way to remove air toxins, and we are encouraged by the technology's ability to help meet the new regulations under the Clean Air Act.

#### REACTIVE THERMAL OXIDIZER AT SOUTH HAVEN

The Federal government passed a new air emission law for minor source plants.

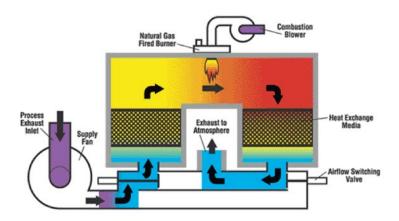
The new law is referred to as the Chemical Manufacturing Area Source standard (CMAS).

The law was put into effect to reduce hazardous air pollutants (HAPs). In our case, at least an 85 percent HAP reduction would be required to meet the standard. The South Haven site installed a Regenerative Thermal Oxidizer (RTO) to minimize our current air emission release amount in total by 99 percent inclusive of HAPs and non-HAPs.

An RTO burns very lean waste gases without using much fuel. Operating temperature is

about the same as a normal thermal oxidizer (~1600°F), but the hot flue gas passes through a heat exchange module before reaching the stack. At least two of these modules are used. one always absorbing heat from the flue gas and one always shedding heat into the waste gas. The modules are insulated boxes full of heat exchange media, usually ceramic packing. When a box has absorbed all the heat it can, it is taken off-line and waste gas is sent through it backwards until it is cool again. Once cooled and off-line the hot flue gas is again sent through it. Two boxes are needed so the flue gas always has a path to the exhaust stack each box switches from heating to cooling approximately every 5 minutes. Specialized airflow switching valves, set on a timer, are used to make the flow changes.

FIGURE 1 - TWO BED RTO CARTOON



In this way, if one pound of waste gas enters at 70°F, one pound of flue gas exits at 200°F. With other thermal oxidizer designs, the pound of flue gas may exit at 500°F or 1600°F—thus, significantly more heat is lost up the stack. The efficiency gained by recycling waste heat minimizes the costs to run the unit and saves externally supplied natural gas required for heating.

#### **4.0** ENVIRONMENTAL INDICATORS

The South Haven site was notified by the Efficiency United Program that it qualified for a special financial incentive for improving the efficiency of its incineration operations. The site was able to qualify the installation of the Regenerative Thermal Oxidizer (RTO) as legitimate energy savings, which resulted in the site receiving a \$50,000 check from the gas utility company. Furthermore, the variable frequency drive (VFD) that was installed on the motor driving dilution air to the RTO was approved, resulting in a \$20,000 refund.

The Michigan Public Clean, Renewable, and Efficient Energy Act, passed in 2008, allowed the utility companies to create programs that offered incentives for improvements in energy efficiency. The incentive program encourages companies and private households to reduce their footprint by "thinking more efficiently." Each month, a portion of the gas utility bill helps fund the program. If a company successfully qualifies a project, the company receives a refund based on demonstrated savings.

#### **BROMINE RECOVERY UNIT AT MAGNOLIA**

Albemarle is committed to identifying, controlling and reducing the potential for emissions of our polymer additives, such as brominated flame retardants (BFRs), into the environment. One way Albemarle is working to accomplish this is through the recent startup of a thermal oxidizer to recover and recycle bromine from BFR by-products at our Magnolia, Arkansas, production facility.

Bromine-containing organic compounds fed to the Bromine Recovery Unit (BRU) are broken down in a high-efficiency thermal oxidizer to produce hydrogen bromide and elemental bromine. These compounds are absorbed into a brine stream feeding an existing bromine production unit. The waste heat from the thermal oxidizer is used to preheat incoming streams to the bromine production unit, reducing purchased natural gas requirements.

The BRU is allowing Albemarle to conserve our bromine reserves, limit BFR emissions and improve energy utilization.



# **EN27** Percentage of products sold and their packaging materials that are reclaimed by category

476 tonnes of products and packaging were identified in 2012 that were directly reclaimed by Albemarle or our contractors. In addition, greater than 10,000 tonnes of catalyst product are recycled annually, by external sources. Albemarle's polymer antioxidants and lubricant antioxidants are incorporated into many plastics products that are reclaimed/recycled in kind with the national average for these markets.

# **EN28** Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations

Albemarle maintains a very robust auditing program for environmental performance and compliance. As a result, Albemarle had no environmental fines in 2012. Additionally, Albemarle had no other significant administrative or judicial sanctions levied against the company in 2012.

# EN29 Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce

Albemarle collects information on distribution incidents as the measure of this indicator. Energy and emissions from transportation of products and waste are not currently tracked. Emissions associated with workforce transportation are shown in EN17. All distribution incidents in which any volume of material is released from a container are recorded as 'Level 2' distribution incidents. There were seven (7) Level 2 distribution releases in 2012. Any spill with an environmental or public impact is recorded as a "Level 3" distribution incident. Albemarle experienced no Level 3 distribution events in 2012.





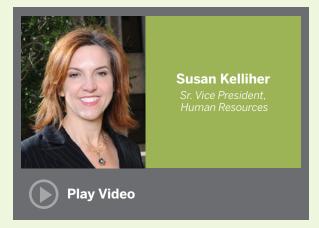
#### Labor Practices and Dynamic, Protected Employment

ALBEMARLE IS A PEOPLE-FOCUSED, PEOPLE-DRIVEN ORGANIZATION.

More than 4,300 men and women across the globe fuel our culture of innovation—and we are committed to their safety, health and professional development. We hire the best, invest in their knowledge and expertise, train consistently, communicate openly, share best practices and encourage career acceleration. Most important, we strive to provide a workplace that helps our people do their jobs safely, responsibly and sustainably. Because when the future challenges us, we know who will answer the call.

#### Management Approach

Albemarle's culture, fundamentally, is all about people. We have a comprehensive global new employee orientation program in which we address our code of conduct, our expectations and that we demand a workplace that values and respects diversity of thought, nationality, race, etc. Throughout an individual's development with the company, we continue to reinforce those very important values.



We believe that fostering a high-quality, effective workforce is the unique determinant of sustained business success. Albemarle strives to provide an environment that values results of individuals and teams, while emphasizing respect for each other and effective communications. Employees are expected to raise workplace issues that represent a risk to the Company, violate the policies of the Company, or threaten a safe and successful work environment. The Company maintains an open door practice that allows employees multiple avenues for expressing and ensuring resolution of any issues.

The Company will abide by all applicable employment laws regarding employment decisions, including recruitment, hiring, placement, promotion, reassignment, compensation, training, discipline and dismissal. Reasonable accommodations will be made as required by applicable law for individuals with handicaps or disabilities. It is the Company's policy to comply faithfully with the applicable immigration laws and regulations. The Company will also abide by applicable labor laws at all global facilities.

## **LA1** Total workforce by employment type, employment contract and region

2012 WORLDWIDE STAFFING SUMMARY (AS OF 12/31/2012)

	Salaried	Hourly	Total Direct	Contract	TOTAL
Americas	1,342	812	2,154	601	2,755
EMA	1,150	0	1,150	19	1,169
AP	603	0	603	49	652
TOTAL	3,095	812	3,907	669	4,576

## LA2 Total number and rate of employee turnover by age group, gender and region

	Average Headcount	<b>Total Terminations</b>	% Turnover
By Gender			
Male	3,252	274	8.4%
Female	685	95	13.9%
By Age			
Age < 30	436	72	16.5%
Age 30-50	2,134	180	8.4%
Age > 50	1,367	117	8.6%
By Region			
Americas	2,165	165	7.6%
Asia Pacific	613	124	20.2%
Europe	1,160	80	6.9%
Overall	3,937	369	9.4%

#### Pursuing Excellence Through Education

In April 2012, 24 Albemarle foremen from various U.S. sites attended the Manufacturing Excellence Academy (MEA) in Baton Rouge, a week-long course of instruction in safety, communications, leadership, supervisory skills, Lean and business acumen. The following month, Albemarle technology resources and operations engineers from the U.S. and Europe received MEA-Engineer training in global business acumen, finance, project management, human resources, safety and operational effectiveness.



## **LA3** Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations.

Significant Location(s)	Name(s)	Minimum Benefits for FT Employees
Americas		
Baton Rouge, LA USA	Baton Rouge Tower	Medical Insurance
Baton Rouge, LA USA	Process Development	Dental Insurance
		Disability Insurance
Houston, TX USA		Life Insurance
Houston, TX USA	Pasadena 	Personal Accident Insurance
Magnolia, AR USA	Magnolia	Blanket Travel Accident Insurance
Orangeburg, SC USA South Haven, MI USA	Orangeburg South Haven	Health Care and Dependent Care Spending Accounts
Twinsburg, OH USA	Twinsburg	Health Savings Account
Tyrone, PA USA	Tyrone	Executive Long-Term Disability
		Retirement/Savings Plan
		Educational Reimbursement Plan
		Matching Gifts to Education and Charitable Organizations
		Seat Belt Coverage and Accidental Insurance
		Aflac
EMA		
Amsterdam, the	Amsterdam	Health insurance
Netherlands		Pension
		Disability Insurance for Income Guarantee of 70 percent
		Blanket Travel Accident Insurance
Avonmouth, UK	Avonmouth	(Same for part-time and full-time)
		First Aid Payment
		Maternity Returners Allowance
		Defined Contribution Pension
		Share Scheme
		Blanket Travel Accident Insurance
Bergheim, Germany	Bergheim	Health Insurance
		Unemployment Insurance
		Pension Benefits
		Nursing Benefits
		Blanket Travel Accident Insurance

#### **4.0** LABOR PRACTICES AND DYNAMIC, PROTECTED EMPLOYMENT

Significant Location(s)	Name(s)	Minimum Benefits for FT Employees
Budapest, Hungary	Budapest	Health Insurance
		Pension
		Weekend Home Travel and Daily Commuting
		Meal Voucher
		Monthly Public Transport Pass
		Private Wellness/Health Fund
		Voluntary Private Pension Fund
		Medicover
Louvain-la-Neuve, Belgium	LLN	Health Insurance
		Extra Legal Pension Plan
		Death and Disability Insurance
		Luncheon Vouchers
		Transportation Allowances and Company Car if GL >= 11 or Salesperson
		Repatriation Insurance for High- frequency Traveler
		Blanket Travel Accident Insurance
Asia Pacific		
Nanjing, China	Nanjing	Statutory Government Benefits
Beijing, China	Beijing	Supplemental Medical, Life, AD&D
Shanghai, China	Shanghai	Blanket Travel Accident Insurance
Jinshan, China	Shanghai	
Ninghai, China	Ningbo	
Seoul, South Korea	South Korea	Statutory Government Benefits
Yeosu, South Korea	South Korea	Blanket Travel Accident Insurance
Singapore	Singapore	
Tokyo, Japan	Japan	

## **LA4** Percentage of employees covered by collective bargaining agreements

Significant Location(s)	Name(s)	% Employees Represented by Unions / CBA
Americas		
Baton Rouge, LA USA	Baton Rouge Tower	0%
Baton Rouge, LA USA	Process Development Center	22.8%
Houston, TX USA	Bayport	0%
Houston, TX USA	Pasadena	57.26%
Magnolia, AR USA	Magnolia	0%
Orangeburg, SC USA	Orangeburg	57%
South Haven, MI USA	South Haven	0%
Twinsburg, OH USA	Twinsburg	0%
Tyrone, PA USA	Tyrone	0%
EMA		
Amsterdam, the Netherlands	Amsterdam	95%
Avonmouth, UK	Avonmouth	79.6%
Bergheim, Germany	Bergheim	95%
Budapest, Hungary	Budapest	0%
Louvain-la-Neuve, Belgium	LLN	0%
Asia Pacific		
Nanjing, China	Nanjing	0%
Beijing, China	Beijing	0%
Shanghai, China	Shanghai	0%
Jinshan, China	Shanghai	0%
Ninghai, China	Ningbo	0%
Seoul, South Korea	South Korea	0%
Yeosu, South Korea	South Korea	0%
Singapore	Singapore	0%
Tokyo, Japan	Japan	0%



## LA5 Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements

Significant Location(s)	Name(s)	Minimum Notice Periods for Operational Changes
Americas		
Baton Rouge, LA USA	Process Development Center	60 days notice to reopen contract
Baton Rouge, LA USA	Baton Rouge Tower	None
Houston, TX USA	Bayport	None
Houston, TX USA	Pasadena	30 days notice and meet with union to change schedule/reduce operating schedules (60 days prior to contract end to terminate contract)
Magnolia, AR USA	Magnolia	None
Orangeburg, SC USA	Orangeburg	48 hours for production scheduling and 8 hours for mechanical breakdown or items outside supervision control. No minimum notice for emergencies or act of God.
South Haven, MI USA	South Haven	None
Twinsburg, OH USA	Twinsburg	None
Tyrone, PA USA	Tyrone	None
EMA		
Amsterdam, the Netherlands	Amsterdam	One month up to grade 8; three months from grade 9
Avonmouth, UK	Avonmouth	90 days notice
Bergheim, Germany	Bergheim	Depending on age and seniority based on collective chemical CLA and law
Budapest, Hungary	Budapest	30 days
Louvain-la-Neuve, Belgium	LLN	3-6 months
Asia Pacific		
Beijing, China	Beijing	1 month
Jinshan, China	Shanghai	
Nanjing, China	Nanjing	
Ninghai, China	Ningbo	
Shanghai, China	Shanghai	
Seoul, South Korea	South Korea	Depends on the employment contract, usually 1 month
Singapore	Singapore	Depends on the employment contract, usually 1 month
Tokyo, Japan	Japan	1 month
Yeosu, South Korea	South Korea	Depends on the employment contract, usually 1 month

## LA7 Rates of injury, occupational diseases, lost days and absenteeism, and number of work-related fatalities, by region

#### **INJURY METRICS**

	2012	2011
Injury Rate	0.23	0.24
Occupational Diseases	0	0
Lost Days	151	208
Absenteeism*	No data	No data
Work-Related Fatalities	0	0
Contractor Rates	0.12	0.55



<sup>\*</sup>Absenteeism is a metric which neither Albemarle Corporation nor any regulatory authority within whose jurisdiction we operate requires. We do not report on this issue and have no intention of reporting in the future as the disclosure is not material to our business because we have a robust on-the-job and off-the-job safety program to ensure employees are aware of best practices in maintaining their health and wellness.

# LA8 Education, training, counseling, prevention and risk control programs in place to assist workforce members, their families or community members regarding serious diseases

Albemarle provides training, counseling, prevention and risk control programs and training for disease. These programs vary by region. Where a disease is perceived to have the potential to be widespread, Albemarle provides resources to employees and families to mitigate the disease effects. Albemarle does not have a high incidence or risk of specific occupational diseases.

At most of our sites, we have proactive wellness programs that provide information and resources for good nutrition, exercise and stress management. These programs are guided by committees comprised of employees and a health care provider. These committees tailor the programs to meet the needs for each specific site.

## **LA10** Average hours of training per year per employee, by employee category

Significant Location(s)	Name(s)	Average Hours of Training/Year
Americas		
Baton Rouge, LA USA	Baton Rouge Tower	8 hours
Baton Rouge, LA USA	Process Development Center	30 hours
Houston, TX USA	Bayport	16 hours
Houston, TX USA	Pasadena	87.79 hours
Magnolia, AR USA	Magnolia	166 hours
Orangeburg, SC USA	Orangeburg	Wage: 56 hours
		Salary: 49 hours
South Haven, MI USA	South Haven	200 hours
Twinsburg, OH USA	Twinsburg	200 hours
Tyrone, PA USA	Tyrone	200 hours
EMA		
Amsterdam, the Netherlands	Amsterdam	20 hours
Avonmouth, UK	Avonmouth	10 hours
Bergheim, Germany	Bergheim	17 hours
Budapest, Hungary	Budapest	10 hours
Louvain-la-Neuve, Belgium	LLN	10 hours
Asia Pacific		
Beijing, China	Beijing	10 hours
Jinshan, China	Shanghai	10 hours
Nanjing, China	Nanjing	10 hours
Ninghai, China	Ningbo	10 hours
Seoul, South Korea	South Korea	10 hours
Shanghai, China	Shanghai	10 hours
Singapore	Singapore	10 hours
Tokyo, Japan	Japan	10 hours
Yeosu, South Korea	South Korea	10 hours



# LA11 Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings

We invest in our employees through many different channels. At all locations, we use internal training programs for skill development. Programs range from broad leadership programs to specific skill development, such as welding. The internal training programs are supplemented with external programs that provide for new skill development or skill refresher. Additionally, for those eligible individuals willing to make the commitment, we support employees' continuing education aspirations by funding university tuition and fees, and allowing the necessary time for classroom attendance.

In addition to our education and training programs, we also offer outplacement services to employees who leave the organization due to job elimination and reduction-in-force. The following processes are covered in the training and job placement benefits provided as part of our outplacement services:

- Self Assessment
- Review of previous work history, training and achievements
- · General career counseling
- Development of a career search strategy
- Coaching, advice and support by a full-time, proactive consultant
- Interview and networking training
- Job leads and methods for discovering employment opportunities
- If during the program period, advice in evaluating, responding to and negotiating offers
- Assistance in completion and reproduction of a professional resume
- Development plan for retirement (if applicable)
- Individually focused training, counseling and follow-up

# **LA12** Percentage of employees receiving regular performance and career development reviews

Each employee, either through a formal or informal process, receives feedback on his/her performance on an annual basis from his/her supervisor.



# **LA13** Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership and other indicators of diversity

#### 2012 DIVERSITY DATA – AMERICAS REGION ONLY

#### **Americas**

	imericas
Total # of Direct Employees (excludes contract)	2,154
Gender	
Total Male	1,779 / 83%
Total Female	375 / 17%
Age	
Total Age < 30	239 / 11%
Total Age 30-50	1,035 / 48%
Total Age > 50	880 / 41%
Ethnicity	
Ethnic – Asian	64/3%
Ethnic – Black or African American	203 / 9%
Ethnic – Hispanic or Latino	92 / 4%
Ethnic – White	1,764 / 82%
Ethnic - Other Categories	31 / 1%



## **LA14** Ratio of basic salary of men to women by employee category

#### FROM LA13 - AMERICAS REGION ONLY

	Total	Male Count	Male Ave Wage	Female Count	Female Ave Wage	Ratio Ave Wage
Ethnic – Asian	64	49	\$57.49/hr	15	\$49.14/hr	1.17:1
Ethnic – Black or African American	203	154	\$32.09/hr	49	\$32.25/hr	0.99:1
Ethnic – Hispanic or Latino	91	72	\$40.14/hr	19	\$38.39/hr	1.05:1
Ethnic – White	1764	1477	\$42.50/hr	287	\$41.39/hr	1.03:1
Ethnic – Other Categories	25	20	\$42.36/hr	5	\$40.35/hr	1.05:1



#### **Human Rights**

#### OUR EMPLOYEES ARE ALBEMARLE'S PAST, PRESENT AND FUTURE.

We believe it's always smart business to empower, respect and protect the people who make our company successful. So, no matter where we operate, management at every level is expected to understand and apply Company employee policies and employment practices. We strive for open communications, giving employees multiple avenues to raise issues and seek resolution. And we faithfully abide by all local, national and international laws designed to ensure equal access, opportunity and protection.

#### Management Approach

#### People and Development

We recognize our Company's greatest asset is our people. We invest time, energy and money to ensure that our workforce has the necessary knowledge and expertise to conduct its work in a safe and environmentally responsible manner, and we reinforce our initial training throughout the employee life cycle. We provide refresher courses and host forums that promote information exchange between employees within their own



facilities as well as with their colleagues at other Company locations. We firmly believe that to improve the future, we must learn from the past. Cross-communication between our facilities, sharing experiences and lessons learned, and establishing best practices is critical to improving our performance and empowering our employees to make good choices for our Company and the communities in which we serve.

HR1 Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening

0% — We currently do not screen or mandate that agreements include human rights language

**HR2** Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken

0% — We currently do not screen suppliers and contractors on human rights. No action taken.

HR3 Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained

United States: Two (2) hours of employee training on harassment and code of conduct (including human rights); 100 percent of employees trained.

Globally (outside U.S.): One (1) hour of employee training on code of conduct (including human rights); 100 percent of employees trained.

## **HR4** Total number of incidents of discrimination and actions taken

No reported incidents for discrimination.
 No action taken.

HR5 Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights

As of December 31, 2012, we had 4,304 employees, of whom 2,156, or 50 percent, are employed in the U.S.; 1,150, or 27 percent, are employed in Europe; 613, or 14 percent, are employed in Asia and 385, or 9 percent, are employed in the Middle East. Approximately 17 percent 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);
- Orangeburg, South Carolina International Brotherhood of Teamsters-Industrial Trades Division (IBT); and
- Pasadena, Texas USW; Sheet Metal Workers International Association (SMWIA); United Association of Journeymen and 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 19 years. Bargaining agreements expire at our

Orangeburg, South Carolina, location in 2013, our Pasadena, Texas, location in 2014 and our Baton Rouge, Louisiana, location in 2015.

We have two works councils representing the majority of our European sites-Amsterdam, the Netherlands, and Bergheim, Germany covering approximately 900 employees. In addition, we have approximately 14 employees at our manufacturing facility in Avonmouth, United Kingdom, who 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. During 2012, we recorded workforce reduction charges of approximately \$21.6 million in connection with our exit of the phosphorus flame retardants business, for which products were sourced mainly at our Avonmouth, United Kingdom, and Nanjing, China, manufacturing sites. During 2010, approximately \$6.6 million of workforce reduction charges were recorded related to a restructuring program at our Bergheim, Germany location.



HR6 Operations identified as having significant risk for incidents of child labor, and measures taken to contribute to the elimination of child labor

 O — No operations identified as having significant risk for incidents of child labor. No measures taken.

HR7 Operations identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of forced or compulsory labor

 No operations identified as having significant risk for incidents of forced or compulsory labor. No measures taken.

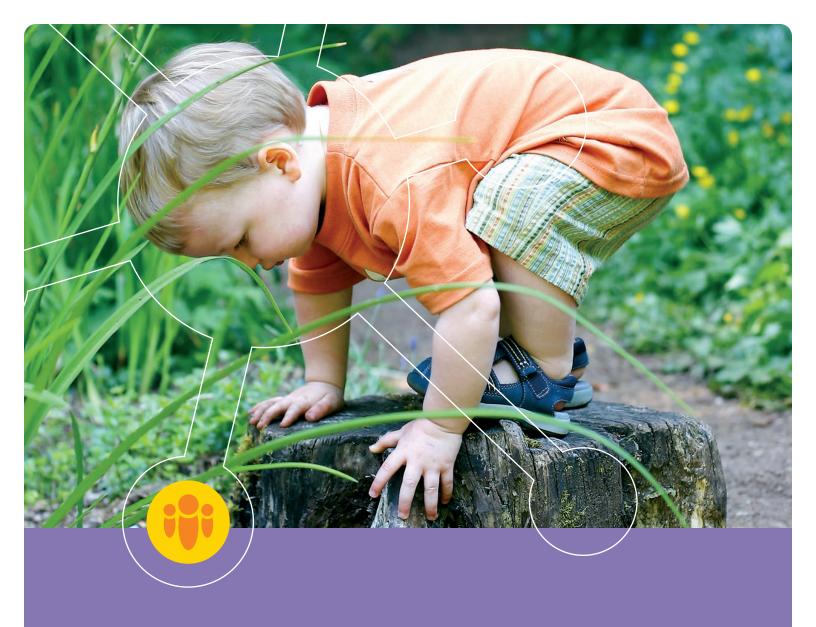


HR8 Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations

One (1) hour of employee training on code of conduct (including human rights). 100 percent of security personnel trained in policies and procedures concerning aspects of human rights in the U.S.

**HR9** Total number of incidents of violations involving rights of indigenous people and actions taken

 No reported incidents of violations involving rights of indigenous people.
 No actions taken



#### Society

OUR COMMITMENT GOES FAR BEYOND THE WORKPLACE AND THE WORKDAY. Albemarle creates essential ingredients for brands millions of people trust every day—products that make life healthier, safer, cleaner and more enjoyable. So it's only natural that we extend the same care and concern to the places where our employees live, work and raise their families. By sharing our time, talents and resources, we're proud to help **protect and serve our local communities** by advancing education, health and social services, cultural initiatives and volunteerism.

### Management Approach

Our goal is for Albemarle to be the most sustainable specialty chemical company in the world. And, by sustainability, what we mean is that we're meeting the demands of our stakeholders today and also preparing to meet what will be the increased demand of those stakeholders in the future. As full participants in Responsible Care, Albemarle Corporation takes its commitment to safe, secure and environmentally sound operation very seriously. These principles do not stop at



the end of the workday, nor outside the workplace. Albemarle employees and contractors sustain a heightened sense of awareness of their actions on and off the job and proactively seek to advocate this philosophy in our communities and with those we interact with on a daily basis. We are also committed to making a positive impact on those communities by advancing education, health and social services, cultural initiatives and volunteerism. We started the Albemarle Foundation in 2007, and since then, we've given well over \$15 million to some wonderful causes around the globe. In 2012 alone, we had over 175 weeks of volunteerism through the Albemarle Foundation. That, to us, is the key of social responsibility—what our employees are doing, how our employees are living their lives, and what they're doing to make the communities in which they live and raise their families better places.

**SO1** Nature, scope and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating and exiting

We view the community as our partner and realize that communities provide us with the license to operate. With regard to assessing and managing the impact of operations on communities, including entering, operating and exiting, Albemarle coordinates the requirements of entering and exiting a community with a special task force that

is initiated upon the need for such action. The task force will be comprised of a multifunction team to evaluate all aspects of such activities, including, but not limited to, financial, environmental, social and regulatory implications. In addition, for continuing operations within a community, Albemarle has instituted our emissions reduction program. Each site has specific issues that need addressing; therefore, each initiative has specific programs and practices that are derived and executed by the Albemarle team for each situation or location.

Finally, each site has a Community Advisory Panel, or CAP, that is the conduit for open communication between the site and the community within which it operates. The CAP provides the plant with open perspective regarding the priorities for the community and a outlet for communications from Albemarle about the state of the company and health, safety and environment-related initiatives.

# **SO2** Percentage and total number of business units analyzed for risks related to corruption

Each of Albemarle's three business units has been analyzed for risks related to corruption, resulting in a 100 percent risk evaluation.

# **SO3** Percentage of employees trained in organization's anticorruption policies and procedures

All employees, upon hire, are required to complete training with respect to the Company's Code of Conduct—Albemarle's principal document and philosophy for the prevention of corruption. Following hire, all employees complete Code of Conduct training on an annual basis.

## **SO4** Actions taken in response to incidents of corruption

During 2012, no Albemarle employee was terminated for corruption-related behavior and no Albemarle employee was formally disciplined for corruption-related behavior.

# **SO5** Public policy positions and participation in public policy development and lobbying

Albemarle has a strong commitment to participating in public policy debates, as well as communicating our positions with government entities around the world. We dedicate time and personnel to interacting with a variety of groups and officials in areas where we believe we can make a difference to the debate. These areas include:

- U.S. federal legislation requiring mandatory security standards for chemical facilities, which will protect not only our employees but also the surrounding communities
- Active participation in producing a more effective chemical management system by modernizing the U.S. federal Toxic Substances Control Act (TSCA)
- Dialogue with country-specific agencies on fire safety standards for consumer products that will save lives and protect property
- Federal standards that provide safe pharmaceutical products
- Active participation with U.S. EPA initiatives in the following areas:
  - » Design for Environment (DfE) alternatives assessment programs for printed circuit boards, Deca-BDE and HBCD
  - » Catalysts for clean fuel technology
- Active participation with European initiatives in the following areas:
  - » Ecolabels
  - » Risk assessments and risk reduction strategies
  - » EU legislative developments



## Beautifying Budapest

A team of 45 employees from Albemarle Budapest spent a Saturday volunteering at Margaret Island, a popular recreational area in the middle of the Danube River that had fallen victim to neglect. The employees cleaned playground equipment, planted flowers, removed graffiti and fluffed the sandboxes with an enthusiasm that truly impressed the park managers.

#### Albemarle on the Run

Another strong showing at the 2012 Providence Corporate Cup in Baton Rouge resulted in Albemarle claiming top honors, winning eight awards, including the coveted Wellness Award for the second straight year. Our team was 157 strong, and Albemarle claimed four individual awards and four team/company awards.

In Orangeburg, Albemarle employees and family members participated in the 35th Annual Cooper River Bridge Run, a 10K that has grown to 44,000 registrants and benefits 12 local charities.

The Albemarle Amsterdam running team fared well once more at the annual Zandvoort Circuit Run, a 12K held at a former Formula 1 racetrack. The race team finished 14th out of 153 business teams, with employee Arjen Hart finishing 6th overall in a field of 1252 runners in an amazing time of 43:21.

## Warming Up Winter

Employees at our Dalian (China) Center of Excellence completed their first charity event—a three-day clothing drive for patients at the Asylum of Pulandian, most of whom are homeless and without the warm clothing needed for much of the Chinese winter. The event was such a success that Dalian team members have begun to consider more ways to help the patients on a regular basis.



#### 4.0 SOCIETY

- Global harmonization of chemical management policies that follow the guidelines of the EU REACH program to provide the public with the most scientific knowledge of our products, as well as confidence in the safety of our products
- Activity at the state and federal government levels, as well as academia, towards a commitment to Green Chemistry principles and a systematic, science-based chemical regulatory system, which has stimulated our research of new products into areas of innovative chemical processes and products that make the world an environmentally safer and healthier place to live
- Development and leadership of working groups made up of industry, government, end user and ENGO participants working towards development of chemicals policy and product safety in various end markets.

**SO8** Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations

During 2012, there were no material monetary fines or non-monetary sanctions for noncompliance with laws and regulations.

## HSE Sustainability Awards

This annual award recognizes Albemarle sites that have made significant innovations in reducing waste, eliminating emissions and working in and with their communities. Among the 2012 winners:

#### **COMMUNITY INITIATIVES**

- Winner: JBC Vocational Program
- Second: Albemarle China "One Heart Program"
- Third: JBC Community Advisory Panel

See more 2012 winners in the Economic Indicators and Environmental Indicators sections of this report.





### **Product Responsibility**

WE APPROACH PRODUCTS WITH A BIGGER PURPOSE. At Albemarle, we use our chemistry expertise and collective ingenuity to meet the needs of today with a constant eye on creating smarter, more sustainable solutions that reduce our environmental footprint. Our commitment spans the complete life cycle, beginning with R&D and responsible raw material sourcing. We examine our manufacturing processes to reduce energy and resource consumption. And we educate our customers in the safe handling, distribution, use and disposal of every product we make.

#### Management Approach

Product responibility encompasses many activities and programs with the overall goal of safe handling, distribution and use of our products. It is important for us as stewards of our environment, as stewards of the health of our employees and as stewards of the health of the communities that we operate in, as well as those that use our products, that we are responsible for all those areas across our products. Albemarle meets all local and international requirements for



the safe shipment of our products. We conduct risk assessments on the products themselves, as well as on their distribution life cycle. We communicate the hazards to all involved in the manufacture, distribution or use of our products. We register our products according to the applicable local, national or international regulations. For our most hazardous materials, we develop specific product stewardship manuals to ensure that each aspect of responsible manufacture and use are clearly defined. All U.S. and two international sites are certified to the Responsible Care 14001 standard. Responsible Care is a very important part of Albemarle's product stewardship program. It does provide the foundation, a very robust foundation, for us to create and maintain a sustainable product stewardship program.

# **PR1** Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures

All of Albemarle's products and services are subject to and assessed for improvement opportunities as part of the Albemarle Health, Safety and Environment Product Risk Characterization Process.

Albemarle has both our products and our facilities certified.



	YES	NO
Development of product concept	Χ	
R&D	Χ	
Certification	Χ	
Manufacturing and production	Χ	
Marketing and promotion	Χ	
Storage distribution and supply	Χ	
Use and service	Χ	
Disposal, reuse or recycling	X	

# PR2 Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes

Albemarle Corporation tracks all incidents involved in the transport and use of our products. In 2012, there were seven (7) incidents involving our products during transportation. Of these, two (2) were associated with a total fine of \$700.

# PR3 Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements

Per our corporate procedures, Albemarle Corporation follows all pertinent regional, national and global regulations for product service information, and labeling for all Albemarle products. We generally do not list the source of the raw materials used in our finished products. The following product and service information is required by the organization's procedures for product and service information and labeling:

	YES	NO
The sourcing of components of the product or service		X
Content, particularly with regard to substances that might produce an environmental or social impact	X	
Safe use of the product or service	Χ	
Disposal of the product and environmental/social impacts	Χ	

# PR4 Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes

In 2012, Albemarle Corporation had 46 selfidentified labeling non-conformances. None involved regulatory authorities, nor did any result in a fine, penalty or warning.

# PR5 Practices related to customer satisfaction, including results of surveys measuring customer satisfaction

In order to provide world-class customer service, Albemarle must be able to demonstrate care and responsiveness to a customer's concerns, as well as continually drive efficiency and effectiveness in order management. The process and tool that facilitate both needs are the Customer Feedback Process and its associated database.

#### 4.0 PRODUCT RESPONSIBILITY

Any input from a customer is important in that it communicates a concern that needs to be addressed. That concern may be a disappointment in Albemarle's products or services that is a result of a failure somewhere within the direct control of Albemarle; or, it may be a disappointment resulting from a failure resulting from actions (or inactions) by one of Albemarle's third-party service providers (or otherwise outside the direct control of the Company). Ultimately, to the customer and within the intent of the Customer Feedback philosophy, there is no distinction. In the spirit of demonstrating care and responsiveness, both circumstances require an investigation into the cause and a timely response back to the customer.

While the primary point of contact for information from customers is most often the Sales Service Specialist, the Customer Feedback System is available to anyone within Albemarle to originate issues for follow-up. Once entered, incidents are assigned to a coordinator defined for the area in which the issue resides. The coordinator classifies the incident by business process and issue, along with function and

location. Then the coordinator assigns the incident to a designated champion. The champion is tasked with investigating the incident to determine the root cause, identifying appropriate corrective actions and summarizing the overall response in the system. This response is forwarded to the customer advocate, who then reviews the response for follow-up with appropriate customer contacts. When successfully resolved, the incident is officially closed in the system.

The global tool is also used to resolve incidents internal to Albemarle. "Internal Incidents" are defined as any failure in the order fulfillment process that generated waste (time or material) or could result in a failure to meet customer expectations. By identifying these incidents, we strive to drive out shortcomings in the order fulfillment work process that, unresolved, might ultimately lead to customer disappointment and, potentially, loss of business.

Much like external issues, internal incidents are also categorized by business process, business sub-process, and location where the incident took place.



## Prevention: Our Priority

Albemarle is a leading global producer of fire safety technologies for multiple industries. So it's natural that we actively promote and participate in Fire Prevention Week, the longest-running public health and safety observance on record. In 2012, our efforts focused on educating and empowering all of our employees to practice two escape routes from their homes in the event of a fire.

#### 4.0 PRODUCT RESPONSIBILITY

The classification of all incidents is used for metrics and trends across organizations. A weekly report of customer complaints is published and distributed to senior management. This elevates any external issues across the organization and captures the event by responsible location, either internal or external. In 2012, Albemarle logged 3,966 customer complaints into the Customer Feedback System. Of these, 96 percent were resolved and closed by year-end.

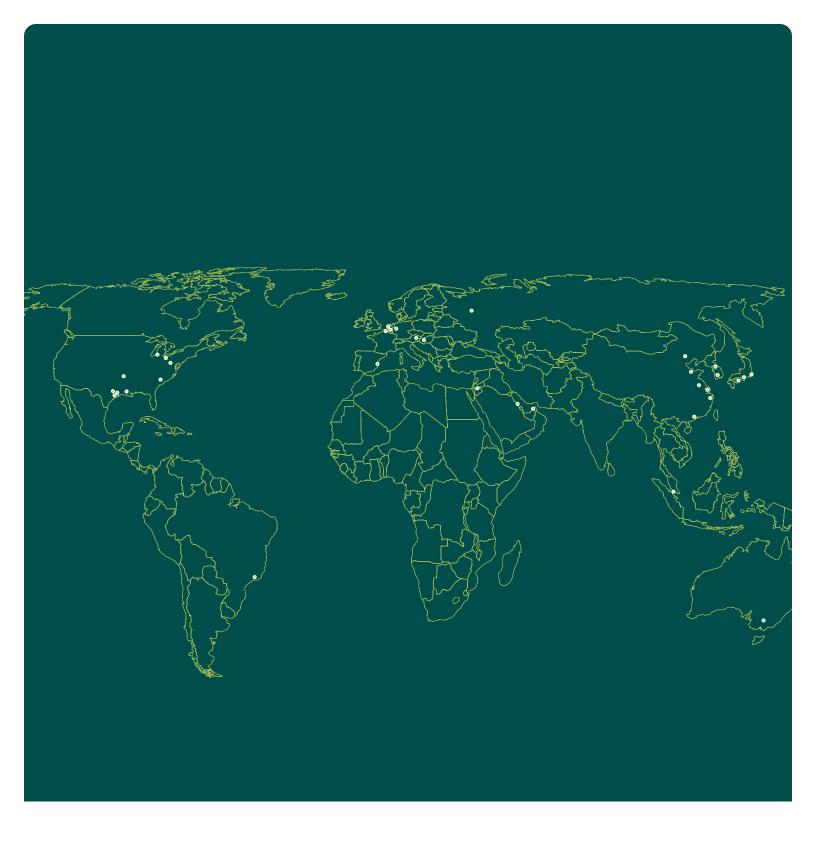
### PR6 Programs for adherence to laws, standards and voluntary codes related to marketing communications, including advertising, promotion and sponsorship

Albemarle utilizes the services of external consultants for strategic communications and marketing communications initiatives, with support and direction from internal specialists. Adherence to laws and standards is addressed in the Corporate Graphic Standards manual, which is posted in the Employee Communications section of the company's intranet.

Albemarle legal and regulatory staff review all marketing communications programs and materials. PR9 Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services

During 2012, there were no material monetary fines or non-monetary sanctions for noncompliance with laws and regulations.







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