



2014 Sustainability Report

*Pure Water. Clean Air. Better World.*

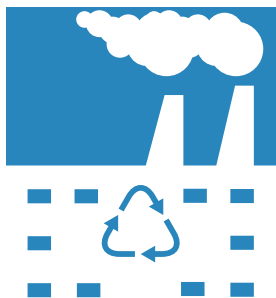


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Gila Bend facility recycled  
**over 40 metric tons**  
of super sacks in 2014

Up to **98% less**  
**water used**  
to reactivate  
than produce  
virgin activated  
carbon

Columbus  
plant increased  
the beneficial  
disposal of  
waste from **4%**  
in 2013 to **22%**  
in 2014



**10% of operational water**  
volume was recycled  
and reused for additional  
processes on site



**RESPONSIBLE CARE®**  
OUR COMMITMENT TO SUSTAINABILITY

# OVERVIEW & HIGHLIGHTS

## Chairman, President & CEO Message and 2014 Highlights

### To Our Stakeholders:



Calgon Carbon is rapidly working towards a new era of sustainability and growth as we continue to transform our company and advance our environmental, social and economic impact. With a broad global portfolio of air and water purification solutions, our company has strongly committed to supporting the health, safety and livability of the planet and its inhabitants. I personally believe these efforts and our products must first and foremost reflect sustainable practices which keep our employees safe and uphold our responsibility to our stakeholders.

Since our first Sustainability Report, Calgon Carbon has been working carefully to measure the positive impact our company has on the environment through tangible and reliable tools which provide concise results. Through this practice, we are able to determine what we are doing to reduce our waste, where we are conserving water, how our planned designs have reduced our environmental impact, and how we collect data at the site levels. By recording and reporting our impact, we now know what questions to ask, what to look for, and what tools to use to effectively manage our efforts. This is, in my opinion, a huge step towards a more effective sustainable practice, and, we can move forward with confidence as we begin to modify our practices.

The year 2014 was integral for Calgon Carbon as we prepared to move into a new headquarters building near Pittsburgh, PA. As an industry leader in purification solutions, we are committed to serving a leadership role in all aspects of our business. At the highest level, our move to the new headquarters will demonstrate the sustainable impact we expect of our operations and value chain partners. This move effectively lessens our environmental footprint by occupying a building with modern energy efficiencies while providing a positive atmosphere and facility to promote the teamwork needed for the success of our business.

Further expanding our capacity to recycle product, the company opened a custom reactivation plant in North Tonawanda, NY, which recycles granular activated carbon used to treat drinking water for customers east of the Mississippi River. We also continued work to expand and modernize our Tipton reactivation facility near Birmingham, England.

We also established and improved systems employed to advance our operational efficiency through three key initiatives:

- ▶ Project Stars & Stripes – Management systems for improving operational efficiencies;
- ▶ Product Rationalization- Framework for justifying product development;
- ▶ Prostar – Data management standardization and optimization.

In addition to streamlining our operational systems, we continued the progress toward implementing RC14001®, a formalized environmental, health, safety, and security management system. As an initiative under the American Chemistry Council's Responsible Care® program, it has proven success in advancing the safety, security, and sustainability performance of the chemical industry. Responsible Care® companies have improved energy efficiency by 24% since 1992

and reduced recordable injury and illness rates by 78% since 1990.

After a disappointing safety performance in 2013, Calgon Carbon committed to increasing our efforts, focus, and initiatives around the issue until we have greatly improved our performance. In 2014, we enacted 3 areas of focused improvement, which I believe pave the way for future success:

- Increased Communications & Awareness: Weekly safety newsletters issued globally, safety videos and creative messaging, the formation of an executive safety committee, site safety talks, and a safety award program;
- Behavior Based Safety Program: A global, standardized behavior based safety program that requires employees of all levels to make personal and positive safety contacts and task observations;
- SafeStart® Training: An advanced safety training program and process for developing personal safety skills critical to a safe working environment and extended application units within the SafeStart program.

Calgon Carbon is still in the early stages of sustainability reporting, but I am 100% committed to the programs necessary to keep our company sus-

tainable. These initiatives that drive environmental performance, including further implementation of RC14001®, are a top priority. Our continued efforts will require the dedication of our employees and supply partners. And, for their determined and tireless work - we are grateful.

We encourage your feedback and look forward to continuing our widespread efforts to bring you updates on our growth and performance in years to come.

Sincerely,



Randall S Dearth  
*Chairman, President and Chief Executive Officer*  
Calgon Carbon Corporation



## About the Report

The 2014 Sustainability Report for Calgon Carbon Corporation provides an update to our sustainability program and progress with respect to our key focus areas, encompassing our employees, products, environmental performance, and community efforts. This report also contains general information including company background, structure and governance policies.

Calgon Carbon has embarked on a journey to improve our environmental, social and economic impact. As a reflection of our commitment, we maintain the following mission statement articulating our approach:

“At Calgon Carbon, we provide purification products and solutions to our customers. We do this by managing our Company in an economically, environmentally and socially responsible manner in order to protect the interests of the current and future global community.”

In support of our mission, we recognize common challenges and how we fit within the global community. As a result, our efforts will focus on the following key areas:

- Environmental Stewardship
- Enhancing Our Workplace
- Community Support
- Products & Life Cycle

To drive activities and initiatives in these key focus areas, we have a work team and an implemented sustainability program at Calgon Carbon. Comprised of individuals from various departments and disciplines, the team is able to network with various offices and departments in order to promote sustainability throughout the Company and communicate the impact it can have on our business and our communities. The team is also instrumental in fulfilling the objectives of the program.

In 2014, our objectives were to benchmark the program and 2013 Sustainability Report against our competitors; evaluate the key performance indicators for continuance; assess capital projects initiated through our Management of Change process; begin the objective setting process; and continue to collect company-wide feedback on sustainability initiatives

and efforts to improve our baseline understanding of our performance.

This report explains our approach to managing our business with regard to our key focus areas, and includes information for various performance indicators and metrics using the Global Reporting Index (GRI) G4 reporting framework and guidelines. Key performance indicators were selected based on a review of the overall GRI Indicator list, and includes those that are material to Calgon Carbon's operations. To develop this report, we have focused on indicators related to employment, safety, water consumption, waste generation, energy usage, greenhouse gas (GHG) emissions and the environmental impact of our products.

A variety of systems were developed and utilized to ensure our indicator data are consistent and accurate. These systems include, but are not limited to, the sustainability reporting database, safety incident reporting database and energy efficiency and greenhouse gas emissions calculation systems and surveys. Environmental data are determined via direct measurement where available or otherwise estimated. Data quality and accuracy were evaluated through internal processes and standards.

This is Calgon Carbon's second Sustainability Report and encompasses the 2014 calendar year. With the intent to publish annually, our report provides our stakeholders—shareholders, employees, customers, suppliers, communities, regulators and officials, trade associates and non-governmental organizations- with information explaining our approach to managing our business and highlights of our current and future efforts.

If you have any questions concerning this report, please contact:

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## Determining Report Content

Calgon Carbon has integrated sustainability at the corporate level. This involves consideration of benefits and impacts associated with (and specific to) the Company's overall activities. As a global leader in providing purification solutions, the Company creates positive impact by addressing the needs of our customers, developing purification solutions and providing meaningful work for our employees. We also recognize that our operations have effects related to the use of resources and associated environmental impacts.

Calgon Carbon continues to evaluate the materiality of all aspects of our operations and report on those that are material to our operations and our stakeholders.

## Scope of Boundaries

The indicator data presented in this report focus on 15 company operations and facilities located in the United States, United Kingdom, Belgium, Japan, and China. Facilities operating more than three months were included in the scope and boundary of this report. The locations reporting on sustainability performance in 2014 include the following:

### U.S. Operations

- Big Sandy plant in Catlettsburg, Kentucky
- Pearl River plant in Pearlinton, Mississippi
- Columbus plant in Columbus, Ohio
- North Tonawanda plant in North Tonawanda, New York
- Gila Bend plant in Gila Bend, Arizona
- Neville Island plant in Pittsburgh, Pennsylvania
- Equipment and Assembly plant in Pittsburgh, Pennsylvania
- Engineered Solutions plant in Findlay Township, Pennsylvania

Selected indicator data for 2014 were also provided for our headquarters and research and development facility located in Robinson Township, Pennsylvania, as available.

### European Operations (known as Chemviron Carbon)

- Feluy plant near Brussels, Belgium
- Grays plant near London, United Kingdom
- Ashton-in-Makerfield plant near Manchester, United Kingdom
- Houghton le-Spring plant near Newcastle, United Kingdom

Purchased for the reactivation of spent granular activated carbon, the Tipton plant in Tipton, United Kingdom is currently under renovation. As the plant was not operating in 2014, the facility did not report on its performance.

### Asian Operations

- Fukui plant in Fukui Prefecture, Japan
- Tianjin plant in Tianjin, China
- Suzhou plant in Suzhou, China

## Stakeholders

We recognize that Calgon Carbon interacts with many different groups in the areas of the world in which we operate. As a result, we consider a broad range of perspectives and viewpoints in developing our sustainability priorities. Active engagement with all of our stakeholders is a business imperative for the Company.

Our approach to stakeholder engagement at this time is a combination of formal and informal interaction. Formally, we maintain regular two-way communication with our investors via annual reports, quarterly company updates, sell-side conferences, and conference calls. Throughout the year, we also engage federal and state elected officials on topics relevant to our Company and its operations and host a variety of site visits for these officials. Interaction with government officials also occurs through our regulatory report filings.

Informally, Calgon Carbon engages other stakeholders including our employees, customers, suppliers and the media. A formalized and documented approach to stakeholder engagement and assessment is in development as part of our commitment to

Responsible Care®. This will allow effective interaction with all of our stakeholders.

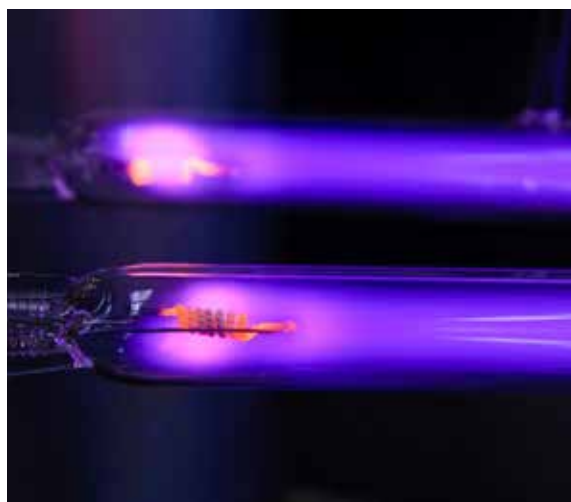
## Affiliations

The Company and its employees engage with many professional, industry and business organizations worldwide, covering a variety of geographic areas, markets and sustainability issues. By participating in these groups, we can expand our influence, help raise industry standards, share and learn best practices and advance discussions within our industry.

Continuing our efforts from 2013, we were able to compile a listing of associations and affiliations of which we are members. As of 2014, Calgon Carbon is a member of:

- Allegheny Conference on Economic Development
- American Chemistry Council
- American Water Works Association
- Department of Commerce- Environmental Technologies Trade Advisory Committee
- Institute of Clean Air Companies
- KY Association of Manufacturers
- National Association of Manufacturers
- National Defense Industries Association
- NBC Industry Group
- Ohio Chemistry and Technology Council
- Pittsburgh Technology Council
- Water Economy Network
- Water Environmental Federation
- Water Reuse Association
- Water and Wastewater Equipment Manufacturers Association

This list represents the affiliations of our U.S. operations only.



## Sentinel

### Ultraviolet Drinking Water Disinfection System

The Sentinel systems utilize ultraviolet technologies to disinfect municipal drinking water. The varying systems have the capabilities of treating anywhere from 0.3 to 40 million gallons of water per day. Using high-intensity, medium-pressure lamp technology, they are able to achieve greater than 4 log inactivation of *Cryptosporidium*, a dangerous organism that is highly resistant to conventional chlorine disinfection. All Sentinel systems have undergone third-party validation under the U.S. EPA LT2 Enhanced Surface Water Treatment Rule guidelines, which is aimed at reducing illness linked with *Cryptosporidium* and other disease-causing microorganisms in drinking water.

Our 25+ years of UV innovation started with the introduction of an advanced oxidation process to destroy toxic compounds in groundwater and expanded to the breakthrough discovery for low-dose inactivation of *Cryptosporidium*, which provided the potable water industry a cost-effective method to protect public health. Through innovative research and development, Calgon Carbon UV continues to evolve to meet the ever-increasing water disinfection needs of the public and private sectors.

# COMPANY INFORMATION

## Company Profile

Calgon Carbon Corporation (NYSE:CCC) is a global leader in innovative solutions, high quality products and reliable services designed to protect human health and the environment from harmful contaminants in water and air. As a leading manufacturer of activated carbon, with broad capabilities in ultraviolet light disinfection and ion exchange technology, the Company provides purification solutions for drinking water, wastewater, pollution abatement and a variety of industrial and commercial manufacturing processes. With a product portfolio that encompasses over 700 direct market applications, the Company has emerged as a principal entity in the international water and air treatment market.

Headquartered near Pittsburgh, Pennsylvania, Calgon Carbon has operations and offices in 14 countries. Approximately 1,100 people are employed at more than 18 manufacturing, reactivation and equipment facilities, and 74 warehouses, sales offices, and service centers globally.

For more information about Calgon Carbon's leading activated carbon and ultraviolet technology solutions for municipalities and industries, visit [www.calgoncarbon.com](http://www.calgoncarbon.com)



## Mission

The mission of Calgon Carbon is to develop and apply technologies to protect people and the environment from contaminants in water, air, food and industrial processes, while developing and maintaining a highly motivated workforce having a strong commitment to its customers, shareholders and society.

Calgon Carbon is a worldwide organization whose business is to meet customers' needs by providing high-quality, cost-effective products and services for purification, separation and concentration in the processing of liquids and gases.

In order to do this, the Company strives to:

- 1 Maintain world wide marketing, manufacturing and technology leadership in the production, use and recycling of activated carbon.
- 2 Develop or acquire products or services which are complimentary to its existing business and organizations.
- 3 Continue to develop the technology utilized in its products and services to meet ever-changing customer needs.
- 4 Stress quality and professionalism in all areas of its business, its people, its products and services and its business conduct.
- 5 Earn income which will support growth of its business and provide an above-average return to its shareholders.
- 6 Expand the applicability of its technology to all appropriate markets, including commercial and consumer markets.

## Core Values

Calgon Carbon is committed to building and maintaining an organization capable of meeting or exceeding our customers' requirements. This is achieved by operating in a manner which is true to our core values of Integrity, Respect for Others, Customer Focus, Organizational Discipline, Accountability for Results, Teamwork, and Pride and Enthusiasm.

### Integrity

- Honesty
- Principled ethical behavior at all times
- Admit mistakes, accept responsibility

### Respect for Others

- Everyone is important
- Active listening
- Fairness and respect for everyone
- Open communication without fear

### Customer Focus

- Accurate, prompt, quality response every time
- Active listening and understanding customer needs
- Build relationships
- Deliver value and quality

### Organizational Discipline

- Work and live safely
- Self-discipline
- Focus
- Hold to commitments
- Do your best
- Take initiative, make a difference
- Confront the facts however difficult
- Set high expectations

### Accountability for Results

- Plan well; get it right the first time
- Develop an action plan and execute
- Learn from mistakes-identify root cause of problems and correct
- Do what is right
- Confront problems
- Know the details

### Teamwork

- Value your co-workers
- Whole>Sum of parts
- Offer to help
- Recognize success
- Exhibit pride and enthusiasm

## Environmental Health, Safety and Security Policy

Calgon Carbon is committed to the American Chemistry Council's Responsible Care® initiative. As part of this commitment we have implemented, with signature of our Chairman, President, and CEO Randy Dearth, the Guiding Principles of Responsible Care® through our Environmental, Health, Safety and Security Policy:

Calgon Carbon Corporation will conduct its business worldwide with a commitment to safeguard people and the environment. Good environmental, health, safety and security performance is critical to the success of our business and is the responsibility of every Calgon Carbon employee.

In accordance with our policy, Calgon Carbon will:

- Conduct our business worldwide in full compliance with all applicable environmental, health, safety and security laws, regulations and other requirements, and apply responsible standards where such laws or regulations do not exist.
- Perform our functions in a manner that protects the health and safety of our customers, employees, contractors, and neighbors.
- Pursue our business in a way that achieves economic goals while simultaneously addressing safety, environmental and sustainability objectives.
- Make environmental, health, safety and security concerns an integral part of our business planning, development, and decision making.
- Provide leadership, professional staff, training, support, and other resources necessary for the implementation of environmental, health, safety and security programs that are designed to ensure each individual's knowledge of their responsibilities.
- Communicate openly with our customers, employees, contractors, neighbors,

appropriate officials, and public interest groups regarding significant safety or environmental matters.

- Strive to continuously improve and enhance our products, processes, and performance in regards to environmental protection, including pollution prevention, product safety and stewardship, process safety and security.

Each member of management responsible for an operation is in turn responsible for the environmental, health, safety, and security performance of that operation and the employees involved.

## Leadership

The senior leadership team is comprised of highly-effective executives who are visionaries in the industry and support the Company employees to continually create new technologies, expand service capabilities and create process improvements. The senior leadership team includes:

|                   |                                                                        |
|-------------------|------------------------------------------------------------------------|
| Randall S. Dearth | Chairman, President & Chief Executive Officer                          |
| Robert P. O'Brien | Executive Vice President & Chief Operating Officer                     |
| Stevan R. Schott  | Senior Vice President & Chief Financial Officer                        |
| Richard D. Rose   | Senior Vice President, General Counsel & Secretary                     |
| James A. Coccagno | Senior Vice President-Asia, Global Procurement & Strategic Initiatives |

## History & Timeline

When the United States entered World War II, coconut shells were the raw material used to produce granular activated carbon, the filtering agent in military gas masks. Faced with a shortage of this crucial material, the government asked Pittsburgh Coke and Chemical to develop a substitute from a native material. In 1942, Pittsburgh Coke and Chemical produced an activat-

ed carbon product using bituminous coal, and that was the beginning of the firm now known as Calgon Carbon.

Throughout its history, Calgon Carbon has been a pioneer in creating new activated carbon products, systems and services from the infancy stages to global commercialization. The Company currently offers a variety of carbon products used in a range of market applications from purifying air and drinking water, to purifying foods and pharmaceuticals, to separating gas and removing mercury emissions from coal-fired power plants. As a leader in the activated carbon industry and with ultraviolet light disinfection and oxidation expertise, Our Company has originated cutting-edge purification systems for drinking water, wastewater, odor control, pollution abatement, and a variety of industrial and commercial manufacturing processes.

From the use of granular activated carbon (GAC) for taste and odor removal in the early 1960s, to the development of ultraviolet light technology for pathogen control in the late 1990s, to the application of ion exchange technology for removing perchlorates starting in the year 2000, we continue to be a pioneer in purification and separation solutions.

For more information and a complete timeline for Calgon Carbon, please visit:

[www.calgoncarbon.com/about/history](http://www.calgoncarbon.com/about/history)

## Ethics & Compliance Program

Calgon Carbon's Ethics and Compliance Program is an integral part of our daily business operations to ensure that all employees around the world understand and are committed to complying with all applicable laws and company values. We strive to make certain that every business decision is guided by our commitment to operate with high ethical standards and integrity. To facilitate this commitment to integrity we have a(n):

- Global, written Code of Business Conduct available in 6 languages
- Supplemental Code of Conduct for our CEO and senior finance employees

- Dedicated ethics helpline accessible from anywhere in the world at any time, and a strictly enforced "no retaliation policy" to promote reassurance in using the helpline
- Ethics office e-mail address to receive questions and complaints as well as Web-enabled reporting
- Employee complaint procedure for Accounting and Auditing Matters
- Code of Conduct training required of all employees, including Senior Management
- Annual ethics certification process that includes all senior management and officers

Annually, each employee is required to read and certify compliance with our Employee Code of Business Conduct and Ethics. The code contains our anti-corruption policy, and in 2014, 100% of our employees read and certified their compliance to the code and all policies contained within. Additional training on our anti-corruption policy is conducted annually to select departments, offices and employees. In 2014, 16% of employees in the Americas and 36% of those in Asia received additional training on our anti-corruption policies. Each year, our material agents and distributors are asked to certify their compliance with anti-corruption laws. In 2014, 100% of the Company's agents and distributors received communication on our anti-corruption policy.



**100% of our employees**  
read and certified their compliance to the code and all policies contained within

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**100% of the Company's agents**  
and distributors received communication on our anti-corruption policy

## Financial Performance

### Summary of 2014 Financial Performance

2014 was a year of rebuilding, as we continued to transform our business, reducing costs and increasing profitability, maximizing growth opportunities and sharpening our global focus. Over the past two years, we have improved both financial performance and cost structure, and created a solid platform for sustained future growth. The impact of our cost improvement program, developed to increase both gross margin and net income, has been substantial. We are on track to realize our originally projected cost savings of \$40 million on an annual basis beginning in 2016. And we are not finished: A new \$10 million project was launched in early 2015. Based on global warehouse organization, new IT efficiencies and alliances for enhanced product procurement, it is expected to generate an additional annual savings of \$10 million starting in 2016, with the full annual benefit coming in 2017.

Gross margin, before depreciation and amortization, climbed to 34.6% in 2014 from 33.0% in the prior year, a 1.6 percentage point improvement. In addition, we generated strong operating cash flows of \$84.3 million, up 26% from the prior year. We also met our 2014 target of reducing inventory levels to below \$100 million, more than a 10% year-over-year improvement.

Operating income increased to \$74.6 million in 2014 as compared to \$68.9 million in the previous year.

Net income advanced to \$49.4 million versus \$45.7 million in the prior year. Fully diluted earnings per share increased to \$0.92 as compared to \$0.84 for 2013. In addition, EBITDA as a percentage of sales improved to 18.6% from 17.6% in the previous year.

In early 2015, our Board of Directors reinstated our quarterly dividend, declaring a cash dividend of \$0.05 for shareholders of record as of March 5, 2015. This is the first time a dividend has been declared in almost a decade.

Sales in the Activated Carbon and Service segment increased by 3.3%, due in part to two new contracts we were able to secure, for a combined total of 12.8 million pounds of granular activated carbon.

- Early in the year, we were awarded a contract by DaeWoo Engineering and Construction Co. Ltd. to supply 5.6 million pounds of GAC to the Gu Eui Municipal Drinking Water Plant in Seoul City.
- In the fourth quarter, we were awarded a contract by Samsung C&T Corporation to supply 7.2 million pounds of GAC to the Dduk-Do Municipal Drinking Water Plant, also in Seoul City.

For the Company as a whole, net sales for 2014 were \$555.1 million as compared to \$547.9 million for the prior year. We see this modest gain as a starting point

| Financial Highlights                         | 2014      | 2013      | 2012      |
|----------------------------------------------|-----------|-----------|-----------|
| (Dollars in thousands except per share data) |           |           |           |
| Net Sales                                    | \$555,103 | \$547,939 | \$562,255 |
| Gross Margin %*                              | 34.6%     | 33.0%     | 30.2%     |
| Operating Expense %                          | 15.7%     | 15.1%     | 16.6%     |
| Income from Operations                       | \$74,605  | \$68,889  | \$39,861  |
| Net Income                                   | \$49,370  | \$45,713  | \$23,272  |
| Net Income Per Common Share (Diluted)        | \$0.92    | \$0.84    | \$0.41    |
| EBITDA%**                                    | 18.6%     | 17.6%     | 11.3%     |

1. \* Net sales less the cost of products sold as a percentage of sales (excluding depreciation and amortization)

2. \*\*Earnings before interest, taxes, depreciation, and amortization as a percentage of net sales

towards long-term revenue growth. The unknown-factor going forward is the impact of foreign currency exchange, and the strengthening or weakening of the U.S. dollar.

## Product Highlight Advanced FLUEPAC®

Mercury emissions created by coal-fired boilers in power plants are a critical environmental concern in today's global community.

Regulatory authorities in both the US and Canada have taken steps to address this concern, with mercury removal requirements addressed by the U.S. Environmental Protection Agency's (EPA)'s Mercury and Air Toxic Standards (MATS)\* and by 19 individual states and certain Canadian provinces. As a result, market demand for removal technologies has increased.

The significant growth expected in this market will result in an increased demand for powdered activated carbon (PAC), which is recognized as a leading technology for mercury removal from coal-fired power plant flue gas, to achieve removal standards.

Our advanced FLUEPAC® products, developed to significantly reduce the amount of PAC required for mercury removal, are gaining acceptance in the marketplace. In addition, with increased bidding activity and new orders, we estimate our potential ongoing market share will be at least 30%.

Calgon Carbon's broad line of standard and advanced (FLUEPAC® STF) performance products – plant tested and proven to remove 90% of mercury and capable of far exceeding 90% removal – provide the flexibility to target configuration and coal type to effectively and efficiently achieve compliance with emerging regulatory changes. Our advanced products have outperformed competing products in more than 35 full-scale tests at utilities, and use 50% to 70% less carbon in order to meet treatment objectives.

With less carbon required to meet objectives, this equates to less transportation and storage, which also reduces fuel consumption and emissions and their associated costs. FLUEPAC® products are concrete friendly, and increase the likelihood that utilities will be able to continue to sell their fly ash to the cement industry, an excellent method of reducing waste sent to the landfill.

\* The long term impact of MATS is unknown, pending ongoing court determinations.





# ENHANCING OUR WORKPLACE

At Calgon Carbon, the success of our business and operations is directly linked to the experience, technical skill, creativity, and dedication of our employees. In order to continue to succeed, we will cultivate these characteristics with a supportive, inspiring, and safe work environment. We pledge to enhance our workplace through initiatives and programs designed to engage our employees, not only because it is our responsibility, but because our success as a company depends on it.

Efforts to enhance our workplace include developing and enacting policies, programs, opportunities, and activities best suited for employees and operations, as well as establishing meaningful metrics. Current policies reflecting commitment to providing a safe workplace include our Environmental, Health, Safety and Security Policy as well as our Code of Business Conduct and Ethics.

Our material social aspects in this focus area are Diversity and Equal Opportunity, Employment, and Occupational Health and Safety. Our primary focus

is the priority we place on monitoring and evaluating our programs and policies and what we can do to improve upon them. Routine evaluation serves as the foundation for goal and objective setting and for continuous improvement of our approach to enhancing the workplace.

Enhancing our workplace includes efforts focused on workplace safety and our employees as expanded upon in the following sections, further explaining our approach and providing baseline data relative to these fundamental focus areas.



## Our Safety



Safety is our first priority because our workforce is our most valuable asset. This statement serves as the driving force behind our constant efforts to improve safety and security at all of our facilities. We are committed at all levels of operation to protect the health and lives of the people involved with our business.

We see every day as an opportunity to improve safety. Our level of expectation regarding safety at Calgon Carbon is reiterated through the actions of our executive management team, and our policies and procedures. As described in our Code of Business Conduct and Ethics, to which all employees subscribe upon employment, working safely is a condition of employment.

We believe an accident free workplace is obtainable. We strive for continual progress toward this goal and communicate our progress openly with both internal and external stakeholders.

To keep safety in the forefront, it is essential that we embed it into daily behaviors and conversations. Employees must embrace and share the same ideals of preventing incidents, injuries, or harm. This engaged approach requires all employees, regardless of their position in the organization, to be involved in our safety programs that improve our safety culture.

Additionally, we have developed a comprehensive set of Safety Standards that in many cases exceed OSHA regulations. All of our facilities, regardless of location, must comply with or exceed these standards while complying with all other applicable regional or jurisdictional standards. This global approach and standardization stresses the priority we place on safety in the workplace, and encourages the development of a worldwide culture around the topic, not just a protocol. In addition, all operations follow the corporate incident notification policy as a system of rules for reporting. Incidents, including near misses, are reported through a company-wide incident investigation/reporting database. Internal safety and audit compliance checks are regularly performed and recorded as well.

With regard to contractor safety, we track and record incidents involving contractors working on site. Incidents involving our contractors are recorded through our corporate incident database; however, we do not

follow a formalized process for reporting these contractor incidents.

As a result of our safety performance in 2013, we emphatically renewed our commitment to improving the safety of our workplace. These renewed efforts resulted in the implementation of several new programs in 2014, and are highlighted with further detail.

## **Increased Communications and Awareness**

A critical step in establishing and maintaining a culture of safety awareness includes establishing and maintaining open avenues of communication throughout the workday at every level in the organization.

Effort to accomplish this in 2014 consists of establishing an Executive Safety Committee, which includes the CEO and senior leadership. The committee convenes bi-weekly to review safety performance of the corporation and advise on improvement opportunities. Also, a Safety Climate Survey was delivered to all locations with the purpose of determining the level of individual commitment to safety, gauging the company's perception of safety.

Results of the Safety Climate Survey were compiled and personally presented by CEO Randy Dearth, and other members of the Executive Safety Committee at facility safety talks. The purpose of the facility safety talks were to discuss current safety trends, the survey results and any specific employee concerns directly with site employees in an open forum. These talks directly reached 80% of our workforce.

Additionally in 2014, several enhancements to communications were implemented. Weekly safety newsletters were globally distributed, and continue to be distributed, to discuss recent incidents, lessons learned, share best practices, and other relevant topics. A corporate wide "Worth It" Campaign was launched, aimed at inspiring employees to reflect on why safety is worth it to them. A Calgon Carbon specific safety orientation video was created for visitors to display at each site as the first of several planned safety videos.

## **Behavior Based Safety Program**

We continue to emphasize our Behavior Based Safety Program. The program was implemented in the first

quarter of 2014 and represents a global, standardized behavior based safety system. The program not only encourages safe behaviors and positive feedback, but engages all levels of employees through observations and a reporting program. While the program requires participation on the individual level, it includes senior leadership to set the example for vigilance and participation. Program growth continues in 2015 with a corporate goal for each salaried\* employee to complete at least six observations (\* applies to salaried employees with direct operational responsibility). In 2014, 276 Calgon Carbon employees completed more than 2300 safety observations.

## **SafeStart® Training**

An advanced safety awareness training program, SafeStart®, was launched in November 2014 as a result of our overall focus on behavior based safety and our companywide goals.

With the support of our Executive Safety Committee, the SafeStart® training program is a top-priority along with our goal of zero incidents. SafeStart® is a program and process for developing personal safety skills critical to a safe working environment. It focuses on creating a mindset that allows people to identify states of mind that lead to critical errors and injuries. Critical error reduction techniques and skills learned in the program will assist the Company with encouraging personal responsibility, and providing motivation for safety awareness. The program and its extended units provide fresh and enjoyable safety awareness training and techniques for at least 3 years. The program also provides safety skills that are relevant to each and every employee, regardless of their job function and also relevant and applicable outside of work.

Overall, the safety skills gained through SafeStart® will enable Calgon Carbon employees to reduce injuries in the workplace, and at home.

## Safety Award Program

As part of our commitment to providing a safe working environment, we strive for continual progress toward our goal of zero incidents, injuries, or harm while communicating our progress toward the goal. To recognize and reward these locations assisting with this goal, we implemented a companywide award program. We applied a two tiered approach to rewarding safety performance at Calgon Carbon, the CEO's Achievement Award and the CEO's Distinction Award. Both tiers relied on leading and lagging safety metrics.

The CEO's Achievement Award recognizes each Calgon Carbon Corporation owned and operated location with outstanding safety performance, and the CEO's Distinction Award recognizes the manufacturing or reactivation site in each region with the best safety performance. The latter is a competitive award for the regional facility with the best safety performance. For their performance in 2014, our Columbus, Ohio, and Ashton, UK plants were awarded the CEO's Distinction Award.

## Accomplished Safety Goals

In 2014, we achieved our goal of 85% compliance with our Calgon Carbon Safety Standards, a 5% increase in compliance over 2013. With 12 main elements, and



Columbus Plant Manager Tim Duckwall poses with Maria D'Amico, Plant Services Coordinator, Chris Harford, Production Manager, and CEO Randy Dearth with the CEO's Distinction Award trophy. The Columbus, Ohio facility was the US facility meeting or exceeding all award criteria for the 2014 award.

over 700 safety requirements, these standards provide a comprehensive blueprint for our safety program and act as an auditing tool to measure the effectiveness of programs. These standards ensure compliance with applicable regulations and laws, and extend beyond compliance as a depiction of our commitment to safeguarding people and the environment.

## Responsible Care® Process Safety Code



Through our commitment to Responsible Care®, we have pledged to implement and abide by the Process Safety Code. The code requires Calgon Carbon collect and report our Process Safety Incidents according to the definitions set forth under the code, and improve employee training on the practices of managing process safety. Certain elements of the Process Safety Code are already incorporated through our current safety program, and those remaining will continue to be implemented over the course of the next year.



The Ashton, UK facility earned the CEO's Distinction Award for our European operations. Pictured left to right in the photo, wearing their award jackets, are Nick Coles, UK Operations Manager holding the award, Steve Jones, UK Engineering Manager, Phil Marsh, Ashton Manufacturing Manager, Nigel Taylor, Sales Director and Location Manager, and Reinier Keijzer, Vice President, Europe. Nigel, Nick and Steve are all members of the Safety Committee. Photo by David Reay.

## Indicator Data LA5 & LA6

Indicator LA5: Percent of Total Workforce Represented in Formal Joint Management-Worker Health and Safety Committees that help Monitor and Advise on Occupational Health and Safety Programs:

All sites are responsible for ensuring employee participation in safety programs and processes as required in our Calgon Carbon Safety Standards, RC14001® management system, and the Process Safety Code.

| Percent Represented on Committees |      |      |
|-----------------------------------|------|------|
| Category                          | 2014 | 2013 |
| Workers                           | 14.4 | 12.4 |
| Management                        | 32.1 | 35.6 |
| Total Workforce                   | 18.1 | 17.0 |

Indicator LA6: Type of Injury and Rates of Injury, reported on a regional basis for 2014:

| OSHA Recordable Incident Rate (TRIR) |      |      |
|--------------------------------------|------|------|
| Location                             | 2014 | 2013 |
| Americas*                            | 1.84 | 1.62 |
| Asia**                               | 1.43 | 0.67 |
| Europe**                             | 2.53 | 3.02 |

| Lost Time Incident Rate |      |      |
|-------------------------|------|------|
| Location                | 2014 | 2013 |
| Americas*               | 0.59 | 0.58 |
| Asia**                  | 0.72 | 0.00 |
| Europe**                | 1.79 | 3.02 |

1. \*Americas: Per the Corporate Incident Notification Policy, all incidents including near misses are to be reported immediately to the supervisor.
2. \*\* Europe and Asia: Injury rate does not reflect minor injuries; it only includes incidents considered recordable under U.S. OSHA recordkeeping regulations.

## Our Employees

Our ability to provide pure air and clean water solutions for our customers is in the hands of our skilled and dedicated global workforce. We recognize the importance of supporting and motivating our workforce and strive to nurture the programs and opportunities needed to help our employees achieve their full potential. By devoting the time required to evaluate and monitor our social enhancement areas, we are able to foster a meaningful relationship with our workforce. This enables our Company to implement programs and activities that are best suited to inspire and support the efforts of our employees. In 2014, we examined our workforce as we did for 2013, according to gender and age group, and looked to evaluate our employee categories in a manner consistent across global locations.

As expected, the development of a single program to cater to our global workforce presents a series of obvious challenges. Our workforce is diverse and composed of international locales. To reflect this diversity we have designed programs and opportunities that consist of a balance of local and corporate programs to best support our global workforce. Current activities and programs designed for our employees include recognition and wellness programs, and educational support and training while we continue to provide performance management and appraisals, and other special programs and career development as needed.

### Employee Performance and Recognition

While Calgon Carbon utilizes a Performance Management System for performance appraisals and goal setting, we lacked a system to reward exceptional performance, and to do so in a timely manner. Fully implemented in 2014 in the US, the Applause Award Program provides immediate feedback and recognition of employee contributions.

Receipt of an award is based on recognition of an employee's individual contribution beyond his/her daily duties while performing at a superior level. Eight defined criteria are used to assess employee contributions, focusing on safety and the environment, customer satisfaction and productivity. Last year, 26% of those individuals recognized through the program were selected for their contributions to safety – specifically for identifying safety concerns and creating a procedural change to rectify the concern or eliminate the concern entirely.

In accordance with our emphasis on safety, every employee in our Company is required to include a safety element in their Performance Appraisal Plan or is held accountable to a safety score card at their

facility. This is one of our management approaches to ensuring safety is a common goal across our organization.

### Wellness Programs

Employee health and morale is essential to our operations and growth, and wellness programs provide an opportunity to address employee well-being. We support and encourage facility-based programs designed to benefit the local employee base. Our various facilities have programs that are tailored to the needs each wellness committee deems fit and that employees express interest in.

## Corporate Wellness Program

Our corporate-based wellness committee works to bring several activities to employees in the Pittsburgh region. Activities organized by the committee include free health screenings, health fairs, heart screenings, and fitness challenges. The annual health fair gives employees an opportunity to explore more options for healthy living and the annual challenge promotes maximum participation and offers awards for reaching various milestones.

### ➤ Walk the Plants Challenge

The Walk the Plants program promoted physical fitness in a new, engaging and creative way. Instead of merely tracking and reporting the total number of steps each day, employees were challenged to “walk” to each manufacturing/reactivation facility in the US. Each step on a pedometer equated to a defined distance, and employee progress was tracked on a virtual path to all US facilities. At milestone destinations, participants received wellness based awards.



- 1st Award Milestone - North Tonowanda, NY  
41415 footsteps
- 2nd Award Milestone - Catlettsburg, KY  
120780 footsteps
- 3rd Award Milestone - Pearlington, MS  
262845 footsteps
- 4th Award Milestone - Gila Bend, AZ  
520410 footsteps

## ➤ Other Corporate Wellness Events and Initiatives

### 15-Minute Walk

Calgon Carbon has a long standing tradition of encouraging employees to take a 15 minute walk each day. This allows employees to increase their activity, and enjoy a mental and physical break in the work-day. Recognizing the positive impact this has on our employees and their health, our current CEO continues to endorse this tradition.



New to the corporate wellness program in 2014 were the Chili/Soup Cook Off and an Ice Cream Social. The purpose of these events was to provide a creative, interactive break for employees during the workday and to facilitate positive interactions and boost team morale.

### **Columbus Wellness Program**

The Calgon Carbon Columbus facility is currently in the third year of its program. With state based funding, the program is administered by an outside vendor and includes a multitude of wellness-based services including a monthly newsletter that includes tips on exercise and recipes, annual biometric screening and health risk assessment, and quarterly lunch-and-learn seminars which cover topics such as heat stress, aging, and heart health.

### **Educational Support and Training**

For employees who wish to further their education, we offer assistance through the form of educational grants. Employees of our American and Asian operations enrolling in certificate or degreed programs are eligible to apply for these educational grants. Last year, 14 employees received educational assistance grants.

In addition to supporting the educational advancement of our employees, we also utilize an online learning management system to inform and educate employees on a variety of general and Calgon Carbon specific topics. Employees have ready access to information and training on topics including, but not limited to, corporate policies, safety, management, leadership, IT applications, and activated carbon and our other product and service offerings.

### **Additional Benefits and Developmental Opportunities**

Last year, we prepared a leadership development program to implement in 2015. The program includes executive level and management level development centers where participants, first nominated and approved to attend, are observed by current Calgon Carbon leadership while engaging in real-life business simulations. Participants to the development centers receive feedback on their performance from the observers and an 18 month, personalized developmental action plan to further enhance and strengthen their leadership skills. With two development centers scheduled for each level in 2015, the ultimate goal of the program is to cultivate the leadership potential at Calgon Carbon for our continued success.

We also continued working with a local non-profit leadership organization last year as two of our employees completed the program. The organization serves to develop, enrich, and network a group of diverse leaders in southwestern Pennsylvania. As leaders, these individuals utilize their sphere of influence to create a positive impact on social issues facing the region. We are proud to support the efforts of these leaders and their desire to pay it forward.

Launched in September of 2014, we partnered with a healthcare company to offer employees an Employee Assistance Program (EAP). The program is free to employees and their household members and offers assistance for a variety of issues including but not limited to family, alcohol, drugs, emotions, stress, legal or financial questions. EAP services include informational materials, counseling, phone consultations and advice on approaches or resources to further assist with the issue. While those utilizing the program remain completely anonymous, we are able to track the types of issues reported. With this information, we can evaluate how to adjust internal programs and benefits to better serve the health and well being of our employees and their households.

## Summary of Indicator Data of LA12 (and LA1)

LA 12: Composition of Governance Bodies and Breakdown of Employees Per Employee Category According to Gender, Age Group, Minority Group Membership, and Other Indicators of Diversity.

### Governance Bodies

In 2014, Calgon Carbon was governed by a Board of Directors, which included the President and CEO who, as of 2014, also serves as Chairman, and eight outside members. Recognizing that a governing body encompasses those with final decision making authority, five executive officers and two regional Vice Presidents are also considered members of the governing body at Calgon Carbon. As defined at Calgon Carbon, in 2014 the governing body is made up of 12% females, and 12% of the governing body members are between the ages of 30-50, with the remaining members over 50.

### Employee Breakdown by Category

Calgon Carbon did not see a significant change in the make-up of personnel in 2014.

| Americas |      |      |
|----------|------|------|
| Age      | 2014 | 2013 |
| Under 30 | 13%  | 12%  |
| 30 - 50  | 48%  | 47%  |
| Over 50  | 39%  | 41%  |
| Gender   | 2014 | 2013 |
| Female   | 16%  | 17%  |
| Male     | 84%  | 83%  |

| Asia     |      |      |
|----------|------|------|
| Age      | 2014 | 2013 |
| Under 30 | 16%  | 15%  |
| 30 - 50  | 71%  | 73%  |
| Over 50  | 13%  | 12%  |
| Gender   | 2014 | 2013 |
| Female   | 27%  | 28%  |
| Male     | 73%  | 72%  |
| Europe   |      |      |
| Age      | 2014 | 2013 |
| Under 30 | 6%   | 5%   |
| 30 - 50  | 56%  | 55%  |
| Over 50  | 38%  | 40%  |
| Gender   | 2014 | 2013 |
| Female   | 15%  | 14%  |
| Male     | 85%  | 86%  |

LA1: Total Number and Rates of New Employee Hires, and Employee Turnover by Age Group, Gender, and Region.

New employee hires and rates of employee turnover are a key metric within Calgon Carbon and material to our day-to-day operations (i.e., GRI G4, LA1). While this specific GRI indicator is not included and reported, we do actively monitor employee retention. Reported as an annual voluntary retention rate, the metric measures the percentage of employees still employed by the Company over a defined period of time. Last year, our retention rate was 93% over the calendar year. We benchmark our rate against industry standards, and seek to fully understand our voluntary and involuntary terminations.

As a part of our management approach for employee retention, in 2014, we formally defined voluntary and involuntary terminations and developed and defined sub-categories of each. Our goal is to identify and track why employees have voluntarily or involuntarily left our Company. We are then able to evaluate and implement additional programs and benefits needed to retain our dedicated and talented workforce.

## Granular Activated Carbon (GAC)

Since the 1960s, GAC has been used to remove harmful organic compounds from water, as well as to remove unpleasant tastes and odors. Most recently, GAC has been identified as an effective means to allow municipal water utilities to comply with the EPA's Stage 2 Disinfection and Disinfection By-Products Rule (DBPR). GAC removes a wide variety of organic chemicals and chemical "groups," including DBP organic precursors, thereby forestalling the formation of DBPs when disinfectant chemicals such as chlorine and chloramines are introduced into the water. GAC has also been shown to be effective in removing contaminants of emerging concern, also identified as endocrine disrupting compounds, and pharmaceutical and personal care products (PPCP). In terms of groundwater treatment, GAC has been proven to be effective in removing a variety of VOCs, such as trichloroethylene and tetrachloroethylene.

GAC technology can be implemented by a typical U.S. water utility for a cost between \$10 and \$40 per year for a family of four. The range accounts for the size of the installation and population served, with the cost going down on a per capita basis as the size increases, due to economies of scale. Installing a DBP precursor technology such as GAC is considerably more affordable from the standpoint of the ratepayer than use of in-house filters (which can cost up to \$100 per year) or bottled water (when purchased regularly, could cost between \$950 to \$1,800 per year).

Recycling of GAC is essentially recycling of exhausted activated carbon. The spent carbon is removed from the utilities' filters, transported to a reactivation facility, thermally reactivated to restore the carbon's capacity, and then returned and reinstalled into the utilities' filters. This approach can reduce the cost of the use of GAC by at least 20 percent, while reducing greenhouse gas emissions related to GAC by as much as 80 percent.

# ENVIRONMENTAL STEWARDSHIP

Calgon Carbon's purification solutions, services, and technologies provide a direct environmental benefit to the global community by helping customers.



Provide clean, safe drinking water



Convert wastewater to potable water



Remediate contaminated soils and water



Treat wastewater



Prevent the transportation of invasive species



Reduce mercury emissions in flue gas streams



Capture toxic air pollutants from industrial and remedial processes



Protect individuals from toxic gases

It is our mission to support the positive environmental impact of our customers. In order to do this, we are



obligated to responsibly manage our own environmental performance and impacts.

We further solidify this mission with our commitment to safeguarding people and the environment, outlined in our corporate Environmental, Health, Safety and Security Policy.

Responsible and efficient management of our environmental performance is accomplished by monitoring our progress, tracking the impact of capital and facility projects, and then identifying ways to improve and develop our processes. In 2014, we continued to evaluate the aspects on which we have significant impacts: waste, water, energy and emissions, and materials.

Information regarding our performance and metrics relative to our core areas of waste, water, energy and emissions, and materials provide further insight on our management approach and progress.

## 2014 Awards and Recognitions

Our successful efforts in environmental stewardship are reflected by the awards and recognition our facilities have received. Three of Calgon Carbon's facilities - Suzhou, Columbus, and Gila Bend - were all recognized for their positive environmental impact.

- As reactivation is a form of recycling, our Suzhou facility in China received a significant recycling cash award of \$600,000, presented by the Suzhou Wuzhong Economic Development.
- AEP Ohio, a unit of American Electric Power, recognized our Columbus plant for successful implementation of energy efficiency initiatives and greenhouse gas reduction efforts.
- Our Gila Bend facility was recipient of the 2014 Excellence in Sustainability Award, presented by the Arizona Manufacturer's Council.

## Waste

As a part of our sustainable business strategy, Calgon Carbon maintains a steadfast focus on responsible waste management. We see ourselves as leaders in recycling and reuse practices, and consider the disposal of solid waste into landfills as the least desirable option for a company practicing responsible waste management.

Calgon Carbon strives to illustrate this practice both in our efforts to assist customers through reactivation of their spent activated carbon, and in our own efforts to find beneficial uses for wastes generated in our operations.

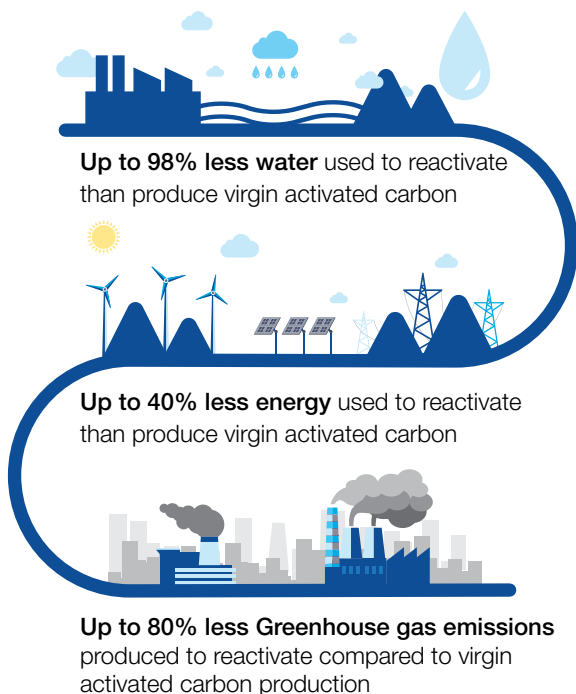
To accomplish this, we monitor the amount and type of waste generated by our organization, while continuing to proactively promote our reactivation processes to our customers.

### Reactivation is Recycling

We realize the direct benefits of recycling every day through our thermal reactivation process, which is a method of recycling. After the adsorptive capacity of activated carbon has been exhausted, it can be returned to Calgon Carbon for thermal reactivation. With high temperature reactivation followed by off-gas treatment, the adsorbed organic compounds are destroyed. Reactivated carbon can then be safely and cost-effectively recycled back to customers, for continued use in their purification applications.

The reactivation process not only reduces the impact that our organization has on the environment, but it also affords our customers with an opportunity to reduce their environmental footprint and further their sustainability efforts as well.

### Sustainable Impact of Reactivation



We adhere to a strict process for evaluating spent activated carbon returning for reactivation, ensuring it meets requirements for safety/toxicity, regulatory compliance, protection of personnel and equipment, and quality of the reactivated carbon product. Only after the spent carbon is reviewed and approved through this rigorous process will it be accepted at one of our reactivation facilities.

As part of our drive for reactivation and our approach to customer satisfaction, we maintain an open dialogue with our customers to communicate the added benefit of reactivation and the reactivation opportunities it provides.



## Generated Waste

Data collection activities for 2014 identified an additional waste stream that was not reported for 2013. As a result, 2013 values for the metric have been corrected in the table below.

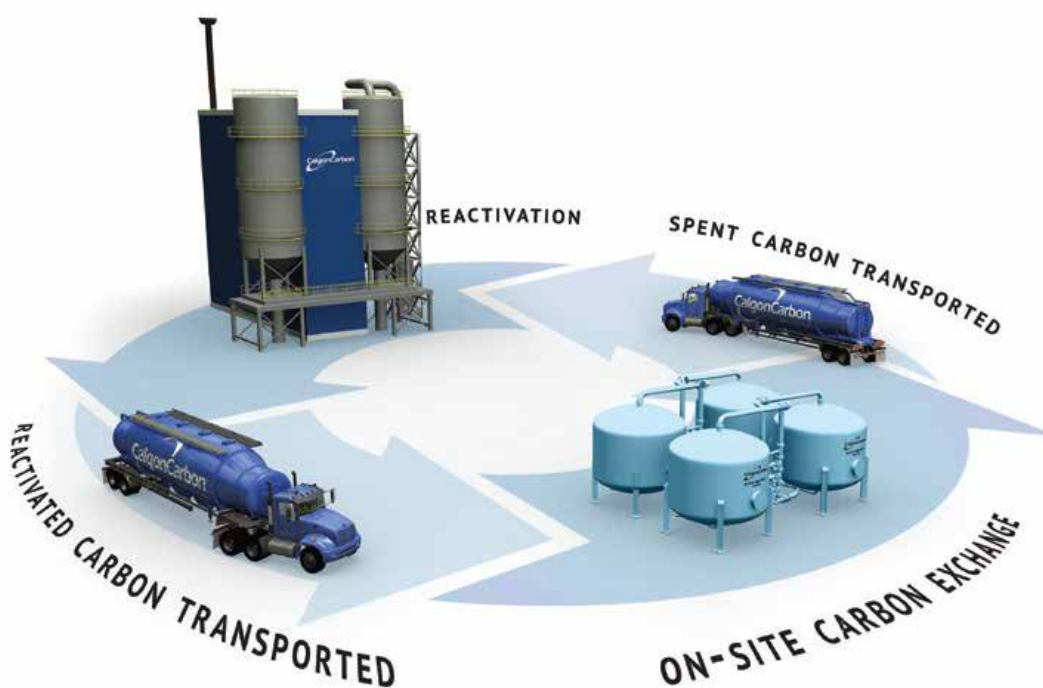
The increase in non-hazardous waste generation can be attributed to increased production, the opening of an additional reactivation facility at North Tonawanda, New York, and inclusion of the newly identified waste stream.

In 2014, we significantly increased the amount of waste sent for beneficial use. The primary waste stream impacting this metric was the carbon fines sent for use as a fuel source, but also includes recycled packaging materials and general site recycling. The Columbus plant alone increased the beneficial disposal of waste from 4% in 2013 to 22% in 2014. We remain committed to open and transparent reporting of our waste disposal practices, and will continue to increase our focus on finding beneficial outlets for our waste streams. Current reuse practices are highlighted below.

EN 23: Total Weight of Waste by Type and Disposal

| Category                                             | Quantity, Metric Tons |         |
|------------------------------------------------------|-----------------------|---------|
|                                                      | 2014                  | 2013    |
| Total Hazardous Waste                                | 3,713                 | 3,759   |
| Total Beneficial Use of Hazardous Waste              | 159                   | 206     |
| Total Non-Beneficial Disposal of Hazardous Waste     | 3,554                 | 3,553   |
|                                                      |                       |         |
| Total Non-Hazardous Waste                            | 22,680                | 16,432* |
| Total Beneficial Use of Non-Hazardous Waste          | 9,429                 | 6,164** |
| Total Non-Beneficial Disposal of Non-Hazardous Waste | 13,251                | 10,268* |

1. \*Metrics reported for 2013 did not include 6,100 metric tons of wastewater fines sent to the landfill that year.
2. \*\*Auditing of waste records for 2013 found a slight discrepancy, corrected here.



## Promoting Beneficial Reuse of Waste

We are committed to the sustainable management and reduction of our waste streams, as evidenced by our continual efforts to find beneficial outlets for our various waste streams:

- Our Feluy facility in Belgium successfully manages the end disposal of wastes, with more than 72% of its non-hazardous waste stream and 10% of its hazardous waste stream sent for beneficial reuse. While some of the facility waste is sent for general recycling, more than 900 metric tons were sent to cement kilns for use as a fuel source in cement production.
- The Pearl River and Big Sandy facilities continued to find beneficial outlets for carbon particulate fines. More than 350 metric tons of particulate fines from processes at Pearl River were delivered to our Big Sandy location for use as product feedstock. Additionally, more than 5700 metric tons of filter fines from both locations were sent offsite for beneficial reuse as a fuel source.
- Calgon Carbon recognizes the significant impact product packaging can have on the volume of a waste stream. The Gila Bend facility in the United States compacts and bales its used supersacks, the primary product packaging material in use at the facility. Compacting and baling makes the used sacks more attractive, and gave Gila Bend the leverage necessary to negotiate with local waste vendors to manage the site wastes. Through this approach, the recyclable waste stream has value to the waste vendor, and the facility can offset overall waste management costs through fees the vendor pays to the facility for its recyclable items. In 2014, the Gila Bend facility recycled over 40 metric tons of supersacks.
- Collectively, efforts of Gila Bend, Columbus and Big Sandy facilities in the US, the Grays and Feluy facilities in Europe, and the operations at Tianjin, China kept more than 86 metric tons of supersacks, estimated to be

more than 37,000 sacks, out of landfills.

- Before sending used supersacks to off-site recycling, facilities reuse the packaging for their own purposes, wherever possible. Reusing sacks that held virgin activated carbon to transport reactivated carbons further extends the usefulness of our packaging.

## Waste Vendor Auditing

Auditing waste and recycling vendors is an essential component to an environmental management system. As we progress toward implementation of RC14001®, an environmental, health, safety, and security management system, this includes developing a process for evaluating waste disposal and recycling facilities.

In 2014, our US operations developed a process by which waste and certain recycling vendors are audited against the criteria in the following categories:

- Environmental Management Systems
- General Compliance
- Waste Handling Practices
- Site Contamination
- Employee Health and Safety
- Finance and Insurance

More than nine waste vendor audits were completed in 2014. While developing the waste vendor auditing program, we identified an opportunity and initiated a project to consolidate waste management services to optimize efficiency, and further reduce liability and costs.

## Water

The health and wellbeing of the global community depends on access to clean, safe, and adequate water supplies. While this continues to be a challenge for the global community, our organization plays a critical role as a solutions provider to address the challenge.

With purification technologies and services, working with our customers to provide sustainable water solutions is core to our mission. Our Company has drinking water systems in place around the world, providing

safe drinking water to millions of people in thousands of communities. We also offer technologies for converting wastewater to potable water with Granular Activated Carbon (GAC), UV Disinfection Technologies, and Ion Exchange Technologies.

Beyond providing clean, safe drinking water and safely treating wastewaters, we have to responsibly manage our own water usage and wastewater generation. As part of our continuous monitoring, we strive to gain a complete understanding of our water usage and where our water is sourced from.

We recognize we need to proactively manage our water consumption in order to protect against rising water costs and potential supply disruptions. We maintain our focus on eliminating and reducing the use of, and recycling and reusing, process water wherever possible.

## Water Usage by Source

In 2014, our operations used more than 6.6 million cubic meters of water from four primary sources. Of the water used in operations, 10% of that volume was recycled and reused for additional processes on site. Water consumption data are generated at a facility level using facility based or municipally supplied metered data and aggregated across Calgon Carbon's operations.

GRI Indicator EN8 & EN10

| EN8: Total Water Withdrawal by Source   |           |           |
|-----------------------------------------|-----------|-----------|
| Source                                  | 2014      | 2013      |
| Total Water Withdrawal, in cubic meters | 6,652,111 | 6,311,763 |
| Surface Water                           | 55%       | 59%       |
| Ground Water                            | 33%       | 33%       |
| Municipal Supply                        | 8%        | 8%        |
| Wastewater from another Organization    | 4%        | N/A       |

## EN10: Percentage and Total Volume of Water Recycled and Reused

|                                                            | 2014    | 2013    |
|------------------------------------------------------------|---------|---------|
| Total Volume of Water Recycled and Reused, in cubic meters | 706,175 | 536,672 |
| Percentage                                                 | 10%     | 8%      |

The slight increase in the total volume of water withdrawn between 2013 and 2014 is due in large part to the opening of our facility in North Tonawanda, New York. This facility uses water for abatement and cooling purposes, which do not require a potable source. Instead of using potable water sources for these purposes, the plant relies on wastewaters from the nearby municipal wastewater treatment facility. Discharge from the abatement scrubber and cooling heat exchanges are directed back to the treatment facility.

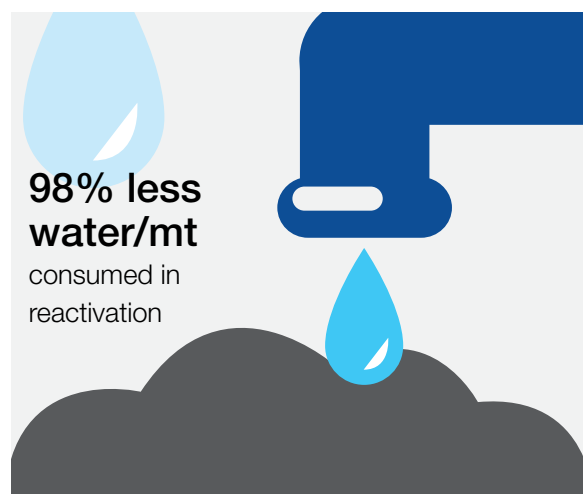
The total volume of water recycled and reused increased from 2013 to 2014 due to improved understanding of current practices. In 2014 we were able to adequately account for the volume of water reused for product testing at our UV Technologies Division, where as we did not calculate that volume for reporting 2013 metrics.

## Eliminating and Reducing Process Water

The need for process water was virtually eliminated by design at the Gila Bend reactivation facility in Arizona, the facility showcases the benefits of minimizing water usage. The facility's dependence on local water resources is greatly reduced, which also reduces the impacts to the surrounding communities that rely on the same water sources within this drought prone region. Additionally, the facility is safeguarded from additional costs otherwise incurred with processing and transporting water on site. Responsible water management at the facility also protects against future price fluctuations and supply shortages.

By eliminating and reducing process water used in operations, in 2014 the reactivation process at Gila Bend consumed 98% less water per metric ton of production than is consumed at our facilities producing virgin activated carbon.

Based on the successful designs showcased at the Gila Bend reactivation facility, we are committed to evaluating where similar designs may be implemented to achieve analogous benefits. Plans for major upgrades to the industrial reactivation process at the Neville Island facility include similar improvements to reduce water consumption. Upgrades to the facility will reduce the need for motive water transport, which also reduces energy consumption and increases available reactivation furnace capacity. The location will also employ a waterless process for product cooling as practiced at Gila Bend.



## Expansion and Upgrades for Reactivation at Neville Island

Reactivation of spent activated carbon is integral to our business and the ability to process and recycle our product allows us to provide a value-added and sustainable way for our customers to meet their purification needs.

To support this critical role, expansion and upgrades to the Neville Island reactivation facility in Pittsburgh, PA are currently in the planning and design phase. The project will consolidate unloading and storage operations onsite, eliminating the need for offsite operations that currently result in hundreds of transfers to the facility each year. Consolidated operations will reduce fuel consumption and emissions by reducing truck traffic. A new loading operation at the plant in which product can be loaded directly into bulk truck for delivery to customers will result in additional logistics improvements. The new operation eliminates the packaging and transfer of material associated with off-site bulk loading.

To conserve energy required for the reactivation process, air that is used to cool equipment in the process will be used as pre-heated combustion in the furnace burners. Efforts to conserve energy aid in reducing the greenhouse gas emissions of the facility.

Learning from our success at capturing and reusing carbon fines at our Pearl River facility, we plan to install a system to collect carbon fines for use in finished products or to use as a fuel source for the furnace combustion. This practice of capturing carbon fines prior to incineration will have a significant beneficial impact on our greenhouse gas emissions.

## Recycling & Reuse Practices

To maintain the same benefits as realized when reducing or eliminating water consumed in our process, we also strive to recycle and reuse water whenever possible. Our Columbus, Ohio and Suzhou, China facilities continue to reuse water to transfer spent activated carbon on site. With this practice, the Columbus facility is able to prevent a 33% increase in the total volume of water withdrawn from municipal sources.

At our Equipment and Assembly plant, reusing water onsite allows the facility to maintain production volume and product testing without significantly increasing water usage. In 2014, water reuse practices prevented the Equipment and Assembly plant from a 19% increase in water consumption.

Similarly, the closed loop water system at our UV Technologies manufacturing facility enables the facility to increase production volume and necessary product testing without significantly impacting overall water consumption.

### UV Technologies (Engineered Solutions plant)

Long term and final product testing of UV reactors at our UV Technologies Division (Engineered Solutions plant) requires water to be continuously passed through the reactors, before entering a chiller to be cooled down for reuse. Utilizing a closed loop water circulation system for this process prevents the facility from withdrawing over 120,000 cubic meters of water from local sources.

UV has continued to seasonally relocate the chiller used in product testing to offset energy consumed for heating and cooling. Located indoors in cooler weather, the heat released by the chiller is returned to the building to offset building heating requirements. Moving the chiller outdoors in warmer temperature reduces the stress on the building's cooling system. The practice is dynamic and correlates to testing levels, reflected in the project's energy savings of over 1600 GJ in 2014 compared to a savings of 200 GJ in 2013.

## Energy & Emissions

The energy consumption and emissions of our operations are significant pieces to our environmental impact, and a central focus of our sustainability efforts. Successfully managing our energy consumption and advancing the efficiency of our operations is a top priority and yields multiple benefits. It lessens our demand on the natural resources required to generate energy, decreases the emissions of our energy consumption, and diminishes the negative impact to our business from fluctuating energy prices. More importantly, working to advance our energy efficiency and reduce our associated emissions has a positive impact on the health and well being of the global community.

We continue to achieve energy and emissions reductions through continued waste heat to energy practices, and by implementing energy conserving designs and equipment wherever possible.

### Waste Heat to Energy

Calgon Carbon benefits from capturing waste heat from our operations. Waste heat is captured and used for a variety of purposes in order to reduce our energy demand for processes such as for steam generation, heating air and process water, and building and space heating.

- Energy savings from capturing waste heat increased at our Feluy facility in Belgium, from 500 GJ in 2013 to 600 GJ in 2014.
- Waste heat recovery at the Big Sandy facility in the US prevented the facility from purchasing an additional 250,000 GJ in 2014. By recycling waste heat to further heat process air, the facility's demand on steam generated energy decreased compared to steam generated energy used in 2013.
- Seasonal relocation of a 60 ton chiller continues to save energy for our UV Technologies Division (Engineered Solutions Plant). Located indoors in cooler weather, the heat released by the chiller is returned to the building to offset building heating requirements. Moving the chillers outdoors in warmer temperature reduces the stress on the building's cooling system. This practice is

dynamic and correlates to testing levels. The practice saved the facility from purchasing an additional 1600 GJ of energy in 2014.

Together, waste heat recovery practices saved Calgon Carbon an estimated 252,200 GJ in 2014. In addition to energy savings, every opportunity to reduce our energy consumption equates to reduced greenhouse gas emissions. Waste heat recovery from these practices also prevented the emission of more than 36,000 metric tons of greenhouse gas emissions.

The ability to track and monitor our savings from waste heat recovery provides the justification necessary to invest in further upgrades and projects to capture waste heat.

## Energy Conserving Facility Designs and Upgrades

With every project, there are opportunities to improve energy balance and reduce emissions. Energy saving initiatives at our Neville Island facility in Pennsylvania have been successful in reducing energy consumption and associated emissions, while also benefiting from available rebates on equipment purchases. Completed improvements for energy savings and rebates at the facility include:

- Installation of a Variable Frequency Drive (VFD) to control the speed of the fan used in the new dust collection system.
  - Energy consumption was measured before and after installation of the VFD, and resulted in a 98% decrease in the amount of energy consumed. Additionally, the facility received a 90% rebate on the cost of the equipment.
- Replacement of fixed speed air compressors with variable speed air compressors to match output with demand.
- Lighting upgrades with more efficient fixtures and motion sensors for additional energy savings and rebates.

Our Columbus plant was recognized in 2014 for its successful implementation of energy efficiency initiatives and greenhouse gas reduction efforts in 2013, recommended through involvement in the Mid-Ohio

Regional Planning Commission's ME3 (materials, economy, energy, and environment) program. Energy reduction initiatives included lighting upgrades and improved management of motors, compressed air, and steam and resulted in a reduction in energy consumption by more than 164,000kWh annually, and reduced greenhouse gas emissions by 125 tons.

## Reactivation Highlight

Energy and greenhouse gas emissions associated with our reactivation process is significantly lower than that associated with the production, supply and use of virgin activated carbon. As monitored within our operations, the reactivation process:



Consumes up to 40% less energy compared to the energy required for production of virgin activated carbon



Emits up to 80% less greenhouse gas emissions compared to emissions from production of virgin activated carbon

## Energy and Emissions Metrics

Overall, our energy consumption and greenhouse gas emissions increased across our operations in 2014. We attribute the increased usage to increased production of our virgin activated carbon, the opening of the North Tonawanda facility, and the improved data collection at the facility level. Our continued approach to managing energy and emissions will include a facility level review of energy and emissions data at each location normalized to production. This is to make sure each facility understands how they perform compared to other facilities in the organization and where improvements can be made.

While our operations achieved a reduction in air emissions of nitrogen oxides, volatile organic compounds, and particulate matter, we did see a slight increase in 2014 of sulfur oxides emitted, and an increase in other emissions noted below. Our 2013 metrics did not include air emissions from our Gila Bend facility, for which sufficient run time to monitor air emissions was not achieved until 2014. Coupled with the opening of our North Tonawanda facility and the increase in production, this accounts for the increased air emissions.

## GRI Indicators EN3, EN5, EN15, EN16, EN18 & EN21

| GRI Indicator |                                  |                                     |                                     |
|---------------|----------------------------------|-------------------------------------|-------------------------------------|
|               |                                  | 2014                                | 2013                                |
| EN3           | Total Energy Consumption         | 2,955,905 GJ                        | 2,817,847 GJ                        |
| EN5           | Energy Intensity                 | 5.32 GJ/\$1000 <sup>1</sup>         | 5.14 GJ/\$1000 <sup>1</sup>         |
| EN15          | Direct GHG Emissions (Scope 1)   | 602,378.4 metric tons               | 593,364.7 metric tons               |
| EN16          | Indirect GHG Emissions (Scope 2) | 63,200                              | 59,332 metric tons                  |
| EN18          | GHG Intensity                    | 1.2 metric tons/\$1000 <sup>3</sup> | 1.2 metric tons/\$1000 <sup>3</sup> |
| EN21          | Air Emissions                    |                                     |                                     |
|               | NOx                              | 95                                  | 131                                 |
|               | SOx                              | 188                                 | 180                                 |
|               | POPs                             | 0                                   | 0                                   |
|               | VOCs                             | 8.4                                 | 23                                  |
|               | HAPs                             | <1                                  | <1                                  |
|               | PMs                              | 371                                 | 382                                 |
|               | Others                           | 24.6 <sup>2, 3, 4</sup>             | 17                                  |

<sup>1</sup> Intensity calculated per \$1000 of 2014 net sales

<sup>2</sup> 22.4 metric tons of HF, HCl, SO<sub>2</sub>, CO, Sb, As, Pb, Cd, Co, Cu, Mn, Ni, V from Feluy

<sup>3</sup> 1 metric ton of HF and Pb from Big Sandy facility

<sup>4</sup> 1.18 metric tons of CO from Neville Island facility

## Materials

As an experienced manufacturer of activated carbon products and water purification systems, we have learned that understanding the materials we use for our business is imperative in the development of efficient products and proper management of our operations. We are committed to monitoring the composition and volume of our materials usage. This allows us to assess production yields and develop accurate process improvements.

To monitor our material usage across the organization, each manufacturing and reactivation facility reports materials used, including raw materials, associated process materials, semi-manufactured goods and parts, and packaging materials. In addition, the amount of material sourced from recycled material was determined to calculate the percentage of recycled material used. Data is centrally collected and aggregated for reporting.

In 2014, our operations used more than 290,000 metric tons of materials, 73% of which were non-renewable materials, a slight increase from 2013, and 26% of materials used were recycled input materials. We define activated carbon that is returned for reactivation and distribution into the marketplace as a recycled input, and in 2014, this accounted for 99% of our recycled input materials.

Overall, our increase in raw material consumption is the result of increased production of both virgin activated carbon and reactivated carbon. The principle raw material for our activated carbon products is bituminous coal, a nonrenewable raw material. Increasing the use of this critical raw material was the result of operational improvements that increased the production capacity for activated carbon at our Pearl River and Big Sandy facilities. Raw material consumption was also impacted by the start-up of the North Tonawanda, New York facility that became operational in the first quarter of 2014, thus increasing our capacity for reactivation.

## Indicator EN1 & EN2

| EN1: Materials Used by Weight or Volume |                               |                               |
|-----------------------------------------|-------------------------------|-------------------------------|
| Category                                | 2014 Quantity<br>(metric ton) | 2013 Quantity<br>(metric ton) |
| Total Materials                         | 298,916                       | 284,374                       |
| Total Non-Renewable<br>Materials Used   | 218,892                       | 197,690                       |
| Total Renewable<br>Materials Used       | 80,024                        | 86,684                        |

| EN2: Percentage of Materials Used That Are Recycled Input Materials |                          |      |      |
|---------------------------------------------------------------------|--------------------------|------|------|
| Category                                                            | Quantity<br>(metric ton) | 2014 | 2013 |
| Total Recycled<br>Input Material                                    | 78,586.8                 | 26%  | 26%  |

We will continue to proactively manage our material consumption, and monitor usage and improve operations to ensure that our manufacturing and production processes are operating at the highest level of efficiency. Calgon Carbon is also committed to promoting our reactivation process and services; this allows us to minimize the environmental impact of our purification products by achieving the highest level of use out of the raw material input. The continuous cycle of reactivating spent activated carbon extends the life of the product, originally derived from a non-renewable material.

An example of our commitment to proactively managing materials is explained with our success at converting waste to feedstock at the Pearl River, Mississippi facility.

## Waste to Feedstock Project

In July 2014, the Pearl River, Mississippi facility successfully implemented a capital project to cool and capture carbon fines from the activated carbon production process. Prior to the project, carbon fines that were captured in downstream processes were sent to a cement manufacturing facility for use as fuel.

Now, the byproduct fines are sent to our Big Sandy facility in Catlettsburg, Kentucky where they are used as product feedstock. More than 350 metric tons of carbon fines, otherwise slated for burning as a fuel source, were diverted in 2014 for use as product feedstock. As an added benefit, with product feedstock arriving from the Pearl River facility, available production time and capacity at the Big Sandy facility increased.

With one successful waste to profit project completed, Calgon Carbon had expected to implement a similar capital project at the Big Sandy facility in 2014. This project has not been completed yet, and is planned for full implementation across the facility in 2017 and beyond.

## Restoration with Granular Activated Carbon (GAC) and Reactivated Carbon

Onondaga Lake, NY

New York's Lake Onondaga was once considered among the most polluted lakes in America. Today, due in part to the use of Calgon Carbon's granular activated carbon (GAC) and reactivation system, the water quality has been restored to its best levels in 100 years.

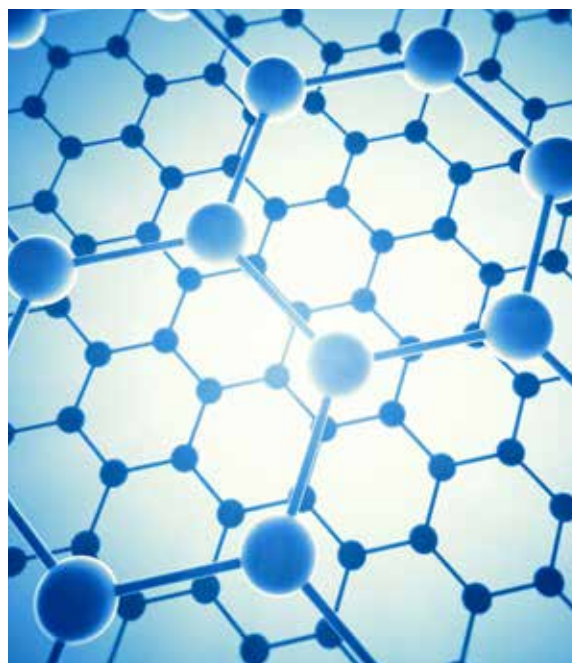
The project, expected to be completed in 2016, has utilized GAC and reactivated carbon for two of the four major cleanup projects: creation of a barrier wall along the shoreline for preventing the migration of contamination and the collection of water for treatment; and removing and treating almost 3 billion gallons of lake water and installation of an isolation cap covering 450 acres of the lake bottom to seal remaining contaminants in place.

At the end of 2013, only 20% of the lake bottom cap material had been installed, but by the end of 2014, progress had reached 62%. To date, 100% of the total lake water has been treated, along with removal of 100% of the lake material. Already, more than 110 species of fish, birds, and mammals have already returned to the restored wetlands and nearby areas.

As a result of restoration efforts and activities, the areas directly surrounding the lake have been revitalized with the increase in visitors and park-goers. This has sparked economic growth in the Onondaga Lake community. An example of this growth is the recent announcement that local colleges and universities have been awarded a \$20 million dollar grant for the construction of a LEED gold building that will become the Water Research and Education Center, to further study restoration ecology; something the Onondaga Lake restoration project is considered to be a textbook example of.

<http://www.lakecleanup.com/2014/>

[http://www.lakecleanup.com/documents/metrics/metrics\\_december2014.pdf](http://www.lakecleanup.com/documents/metrics/metrics_december2014.pdf)





# COMMUNITY SUPPORT

Through our stated mission and core values at Calgon Carbon, we pledge to maintain a strong commitment to society while providing purification technologies and solutions for the direct benefit of the global community. Consistent with this pledge we continue to make great strides in creating and sustaining strong relationships with the communities in which we live and operate. We work to achieve a positive impact because the success of our business lies with the support and trust from these communities.

Since publishing our inaugural sustainability report for 2013, we have made progress toward creating a formalized management plan regarding community support, particularly through corporate giving. We were successful in identifying the programs and initiatives currently underway at our various operations. With local communities identified as one of our material aspects, we continue to monitor and track participation in community engagement and development programs.

## Supporting Our Communities

Calgon Carbon enriches our communities by participating in fundraising initiatives, community partnerships and programs, and volunteer efforts. Continuing with our ongoing corporate giving focus, Calgon Carbon employees donated to the United Way in 2014, with 100% of our executive team making a financial contribution. The United Way operates on a multi-national level and provides support to local charitable organizations focusing on improving education, financial stability, and promoting healthy lives. Each of our facilities is also encouraged to support organizations in their local community. The following examples showcase a few of these initiatives, partnerships, programs, and efforts undertaken by the company and employees in 2014:

- ▶ The Calgon Carbon Community Connections program was launched at the end of 2014 and provides salaried employees with paid community service hours. The vision is to create beneficial long-term relationships with our local communities. Employees have the opportunity to do volunteer work for their chosen charity or other non-profit organization during regular work hours. Activities may include serving meals at homeless shelters, building a home for someone in need, or reading at a local elementary school.



“The fact that the Company has endorsed the Community Connections Program demonstrates its support of the personal impacts each employee can have in the local community. Having the opportunity to do volunteer work during business hours keeps my priorities balanced while bringing joy and comfort to others.”

Janet Craig, Calgon Carbon Training and Development Manager.

- A Big Sandy plant employee was invited to participate in the annual Young Women LEAD Seminar. Young Women LEAD, a youth leadership conference that includes over 500 high school aged young women, focuses on finance, careers, social media, fitness, and health. The conference includes local, regional, and national women leaders to share their business, civic, life skills, and experiences to teenage women. Attendees also participate in break-out sessions, leadership exercises, and group discussions that address career paths, education, and outreach.
- Our Suzhou facility joined the Suzhou Environmental Volunteer Association at the start of 2015. As a core member of the association our employees have the opportunity to do volunteer work for the community, including performing the drinking water testing for the community and other environmental day activities with the local community.
- Planned and supported in partnership with the local Chamber of Commerce, the Gila Bend facility and its employees participated in Manufacturing Day in October 2014. The event is aimed at introducing local high school students to jobs in the manufacturing industry as a way to address the gap between job requirements and the skills of those who are applying for them. The Gila Bend Plant looks forward to continuing with this program after a successful first year.
- We continue to be a longtime supporter of Junior Achievement (JA) of Western PA. Employees in Western PA participate in JA career days and teach classroom lessons to help young people learn the skills needed to be successful in a global economy. In 2014, Calgon Carbon made its first \$20,000 pledge of our \$100,000 commitment.
- In support of the March of Dimes, employees at the Big Sandy Plant in Catlettsburg, Kentucky raised \$3,750. Fundraising activities included the fourth annual 3-on-3 basketball tournament and a March of Dimes Walk for

Babies. The Big Sandy plant also participated in several Relay for Life events, benefiting the American Cancer Society, and raised over \$19,000 for the United Way of Kentucky.

- The Industrial Food and Business Unit once again supported the Annual Conference on Soils, Sediments, Water, and Energy at the University of Massachusetts at Amherst. Awards were given to students who made the best poster or platform presentation at the conference.
- Both our Big Sandy and Pearl River Plants held a toy drive over the Christmas holiday to collect toys for the Salvation Army Emergency Shelter in Ashland Kentucky, and the Hancock County foster care program, respectively. Employees at our headquarters in Pittsburgh, PA, also collected items for the Salvation Army, providing toys to underprivileged children in the area.
- Employees from our Big Sandy plant participated in a local Adopt A Highway event where local businesses took time to beautify the surrounding community by picking up trash along US Route 23 in Kentucky.

As a company, we acknowledge that our divisions and employees enthusiastically supported the communities in which they live and operate, and in 2014, we continued to gather this information to understand the extent of our community involvement. As of 2014, we are continuing to further develop and design our corporate giving, as well as evaluate how best to support our employees in their efforts to engage in the community. In an effort to formalize our process for corporate giving, we have started to streamline our contributions into three focuses: Health & Human Services, Education and Community Improvement and are working to prepare an application process for soliciting funds for corporate giving.

In 2014, corporate donations totaled more than \$150,000 and included the following charities:

- American Red Cross
- Animal Friends
- Blind & Vision Rehabilitation of Pittsburgh

- Carnegie Museums of Pittsburgh
- Children's Hospital of Pittsburgh Foundation
- Goodwill
- Junior Achievement
- National Kidney Foundation
- Pittsburgh Opera
- United Way

## Protecting Our Communities

Building trust with our community partners is vital to strengthening the relationships with the people in the areas we live and operate. We achieve this by implementing local community engagement programs, impact assessments and development programs. Some of these programs include involving facility management with Community Advisory Panels (CAPs) and Local Emergency Planning Committees (LEPCs), environmental impact assessments and public reporting, stakeholder engagement plans and providing a formal local community grievance process. In 2014, 100% of our operations had implemented local community engagement programs, impact assessments and development programs, compared to 93% for 2013.

- UV Technologies actively participates in the local township developmental awareness meetings.
- The Feluy plant in Belgium is an active member in the Feluy Industrial Area Environmental & Safety Commission.
- Our largest manufacturing facility, Big Sandy, participates monthly in the Ashland CAP (Community Action Panel) where local plant leaders interact with the community to discuss Calgon Carbon's impact and answer questions of the group.
- In early 2015, our Suzhou reactivation facility in China partnered with the Firefighting Bureau of Wuzhong District and hosted more than 50 firemen from the bureau to perform drills and practice at the facility.

Tracking our local community engagement programs provides an understanding of the actual and potential

impacts our company has on local communities.

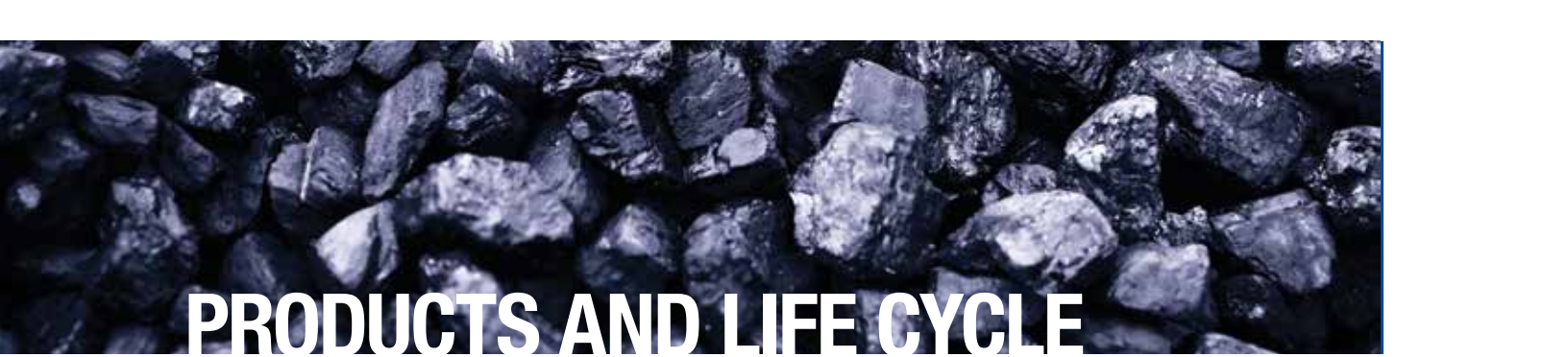


Calgon Carbon's commitment to the ACC's Responsible Care® initiative will continue to drive the transparency of our health, safety, security and environmental performance. The principles and requirements of our RC14001® management system include processes and procedures to identify and control hazards, be prepared in the event of emergencies, and provide open communication with all stakeholders, particularly the communities in which we operate.

Adhering to the Guiding Principles of Responsible Care® demonstrates our commitment to our communities and society at large. In 2014, we began the implementation of the RC14001® and the Codes of Management Practice, including Security Code, Process Safety Code, and Product Safety Code. These codes are aimed at helping protect people, property, products, processes, information and information systems by enhancing security, improving process safety, and better communicating product safety throughout the chemical industry value chain.

### Filtrisorb

Granular Activated Carbon for the removal of dissolved organic compounds from water and wastewater as well as industrial and food processing streams. These contaminants include taste and odor compounds, organic color, total organic carbon (TOC), and industrial organic compounds such as TCE and PCE. This activated carbon is made from select grades of bituminous coal through a process known as re-agglomeration to produce a high activity, durable, granular product capable of withstanding the abrasion associated with repeated backwashing, hydraulic transport, and reactivation for reuse. Activation is carefully controlled to produce a significant volume of both low and high energy pores for effective adsorption of a broad range of high and low molecular weight organic contaminants.



# PRODUCTS AND LIFE CYCLE

We are committed to providing products that are safe when used responsibly and for their intended use, while ultimately benefitting the environment by their design.

Our products are designed and intended to protect people and the environment from contaminants. While the positive impact of our products and services is evident, we must remain vigilant to responsibly manage the impact of our products throughout their lifecycle. Accordingly, we take responsibility for the safety and stewardship of our products, and this focus also includes evaluating the sustainability and responsibility of the suppliers engaged in our value chain.

In 2014, our adherence to the principles of Responsible Care® and continued implementation of the Product Safety Code formalized our commitment to product safety and stewardship and further developed our management systems with regards in this area.

We also continue to strengthen cooperation with our value chain partners, which includes promoting our reactivation processes. This enables customers to reduce their environmental impact as the reactivation process keeps the spent activated carbons from the fate of landfill disposal, generates lower emissions in the process than does the process for making virgin activated carbon, and the product can be continually recycled for continued positive environmental benefit. Producing virgin activated carbon generates an estimated 80% more greenhouse gas emissions than that generated by the process to reactivate the same amount of spent activated carbon.

Additional information on our approach to the safety and stewardship of our products, and how we assess the impact of our value chain partners follows.



## Granular Activated Carbon for Treatment of Algal Toxins

Bowling Green, Ohio

In August 2014, more than 400,000 residents in Toledo, Ohio lost access to drinking water when the Toledo Drinking Water Treatment System shut down because of algal blooms on Lake Erie. The 30,000 residents of Bowling Green, OH, using the same Lake Erie water, remained unaffected.

The difference between the Toledo and Bowling Green systems was the use of granular activated carbon (GAC) at the Bowling Green Drinking Water Treatment Plant. GAC is used by hundreds of drinking water treatment plants across the United States to remove undesirable chemicals, including disinfection by-products, pharmaceuticals, unpleasant tastes and odors, and potentially harmful algal toxins. GAC is one of the most effective and affordable drinking water treatment processes to protect against the intrusion of algal toxins into the drinking water system. UV oxidation is another effective treatment option for drinking water facilities facing algal toxin challenges.

Committed to providing purification solutions, services, and technologies in order to safeguard people and the environment from contaminants, Calgon Carbon is the only company that provides both granular activated carbon and UV oxidation for treatment of drinking water contamination.

## Our Products

Our products serve a critical role in water and air purification, as well as industrial and food processes.

An essential part of our product development cycle is the evaluation of each product for health, safety, and environmental hazards and regulatory compliance. In 2014, we furthered efforts to classify the hazards of our products and prepare product labels according to the United Nations Global Harmonized System of Classification and Labeling of Chemicals (GHS) as adopted by the United States under 29 CFR 1910.1200.

Calgon Carbon also initiated global product manager meetings to discuss issues and concerns with regulatory developments, production, customer specific requests and concerns, and related topics. The overall benefits of these regular meetings include timely, efficient discussions of product related issues and sharing best practices.

Our US operations developed a product review process in 2014 for implementation in 2015. The objective is to ensure new products undergo a formal review with cross-functional considerations before approval. Benefits of the review include:

- Improved operational/manufacturing efficiency by reducing transitions between product lines.
- Improved inventory and supply chain management by reducing product complexity.
- More efficient use of internal resources – sales, marketing, product management – by reducing the efforts focused on less profitable products.

With our commitment to Responsible Care®, we progressed toward implementing the Product Safety Code to ensure the safety and stewardship of our products. Under this initiative, maintaining our promise to protect public health, safety, and the environment as a core value requires we take responsibility for our products throughout the entire value chain. The code outlines the necessary management practices and provides the comprehensive framework for driving continuous improvements in product safety and stewardship.

Implementing the management systems of the Product Safety Code enables systemic product evaluation; demonstrates continuous improvement of product



safety while improving communications; and influences product safety throughout our value chain. In 2014, the first three management practices of the code were completed with commitment from senior leadership, established organizational accountability for product safety and stewardship and implementation of a risk based prioritization process considering exposure and hazard information to identify those requiring further evaluation.

Efforts in 2015 will include development and implementation of processes to fulfill the next four management practices in the code:

- Develop and maintain information on safety, health, and environmental hazards, intended product uses, and exposures for new and existing products.
- Risk characterization of products based on product information.
- Product safety management to identify, implement, document, and communicate measures to manage product risks.
- Management of new information that may impact risk characterization and product safety management.

## Our Suppliers

Increasingly, stakeholders are demanding information on the environmental and social impact of our products and services. Our Company is not only committed to collecting this information and sharing it with our stakeholders, but also committed to evaluating the environmental and social impact of our suppliers. Sustainable performance is a priority for Calgon Carbon as it becomes more and more of a driver to maintain business relationships in the value chain, and we are constantly working to develop and expand this commitment.

We recognize that our commitment to safeguarding people and the environment requires the cooperation of our value chain partners, which can be evaluated through supplier screening. While select locations are screening suppliers based on environmental criteria, we do not have a corporation-wide formalized process

for screening suppliers based on environmental criteria or potential environmental impacts. However, we have taken the initial step of developing a clear definition of environmental criteria to further evaluate and improve our processes. The next step is to define the criteria necessary to protect the environmental impact of our actions as they relate to our supply chain partners.

### Indicator Data EN32 & 33

As a measure of our progress toward providing products that are safe when used responsibly and for their intended use, we are tracking the percentage of suppliers screened with environmental criteria (EN32) and examining the actual and potential environmental impacts of our suppliers (EN33). These two metrics combined give us further understanding of the complete impact our products have on the environment.

| EN32: Percentage of New Suppliers Screened Using Environmental Criteria | 2014   | 2013   |
|-------------------------------------------------------------------------|--------|--------|
| Total new suppliers screened with environmental criteria                | 17.00% | <5.00% |

| EN33: Significant Actual and Potential Negative Environmental Impacts in the Supply Chain and Actions Taken | 2014 | 2013 |
|-------------------------------------------------------------------------------------------------------------|------|------|
| Total Suppliers Subject to Environmental Impact Assessments                                                 | 32   | 11   |
| Suppliers identified to Have Negative Environmental Impact                                                  | 26   | 8    |
| Suppliers Terminated for Negative Environmental Impact                                                      | 1    | 6    |

