



Table of Contents

MESSAGE FROM THE CEO	1
INTRODUCTION	2
LIVING A ZERO HARM CULTURE	4
MEASURING ZERO HARM 2016 PROGRESS	5
WORKING TO PROTECT OUR COMMON ENVIRONMENT	6
PC AND THE ENVIRONMENTAL ADVANTAGES OF MICROPRO®	7
ENVIRONMENTAL ADVANCES AT KOPPERS RUPS AND CMC	10
GLOBAL ACHIEVEMENTS	12
RESEARCH AND RECOGNITION	14
PROMOTING A POSITIVE SOCIAL IMPACT	15
SAFETY AND WELLNESS	16
KOPPERS IN THE COMMUNITY	17
SUPPORT FOR NATIONAL HEALTH-RELATED CHARITIES	20
FOSTERING SHARED ECONOMIC BENEFITS	21
SEEKING YOUR VALUARIE EEEDRACK	22



Introduction

Living a Zero Harm Culture

Measuring Zero Harm 2016 Progress

Working to Protect Our Common Environment

PC and the Environmental Advantages of Micropro®

Environmental Advances at Koppers RUPS and CMC

Global Achievements

Research and Recognition

Promoting a Positive Social Impact

Safety and Wellness

Koppers in the Community

Support for National Health-Related Charities

Fostering Shared Economic Benefits

Seeking Your Valuable Feedback

Message from the CEO



At Koppers, making sure that no harm comes to our employees, our communities or the environment overall provides the foundation of our culture of **Zero Harm**. At the same time, we need to operate a successful business. In my mind, those ideas are mutually dependent. We believe that operating in a sustainable fashion – as our first priority, always – leads to success in the marketplace.

Our **Zero Harm** culture, which achieved important gains in 2016, is driven by employees placing everything they do within a personal

framework. We are working every day to improve the way we conduct our work based on gauging how it could impact ourselves and others. These stakeholders include co-workers, nearby residents and businesses, or those depending on the same air, water, and earth we all share.

When we see that we can achieve **Zero Harm** on one day, why not on the next day, as well, and the day after that, until it becomes a sustainable pattern? Zero Waste focuses on operating as efficiently as possible, regarding our use of resources and the byproducts of our production processes, with the same mindset behind it as **Zero Harm**.

We understand and appreciate that society expects companies like Koppers to perform with these standards as guidelines. We also know that society's expectations are constantly evolving, becoming higher, more demanding. We welcome these elevated expectations, and we are making strides to anticipate and exceed them. It remains a continuous process, one in which our efforts can never cease.

Our progress is detailed in the 2016 Sustainability Report, available on our website. We invite you to take a look at what the people of Koppers around the world have achieved over the past year, and to join us in an active dialogue with your suggestions and observations.

Sustainability never stops, and neither will our focus on addressing it across all our locations, with every employee, and with the people and organizations that we impact and serve. The unending pursuit of **Zero Harm** touches us all.

Sincerely,

Leroy M. Ball

President and Chief Executive Officer

Koppers Inc.



Introduction

Living a Zero Harm Culture

Measuring Zero Harm 2016 Progress

Working to Protect Our Common Environment

PC and the Environmental Advantages of Micropro®

Environmental Advances at Koppers RUPS and CMC

Global Achievements

Research and Recognition

Promoting a Positive Social Impact

Safety and Wellness

Koppers in the Community

Support for National Health-Related Charities

Fostering Shared Economic Benefits

Seeking Your Valuable Feedback

Introduction

We are Koppers – an integrated global provider of treated wood products, wood treatment chemicals and carbon compounds, as manufactured and delivered by three primary businesses: Performance Chemicals (PC), Railroad and Utility Products & Services (RUPS), and Carbon Materials & Chemicals (CMC).

Our Mission

Creating safe and environmentally responsible solutions that solve our customers' most important challenges and result in superior performance for shareholders.

Our Vision

To be recognized as the standard bearer for safely delivering customer focused solutions primarily through the development and application of technologies to enhance wood.

Our Values

Our values help guide us in managing risk, ensuring accountability to key stakeholders and securing competitive advantage.

- Accountability
- Customer Focus
- Excellence
- Innovation
- Integrity
- Respect
- Simplicity
- Sustainability
- Teamwork
- Transparency

Our Culture

We think, plan, and operate in a culture of **Zero Harm**, meaning that the company always places the safety and health of its employees, environment and communities first, as driven by our Values.

Commitment to Responsible Care®

Koppers supports and adheres to the principles of the American Chemistry Council's Responsible Care® initiative, a voluntary industry program that requires members to implement best practices to manage environmental impacts, health, safety and security. In 2016 as part of its Responsible Care efforts, Koppers incorporated the Process Safety Code and the Product Safety Code – two programs that expanded the company's demonstrated dedication to a comprehensive safety culture.

The Business We're In

By extending the life of wood products, Koppers protects them from fungal, termite and other pest attacks, extending the life of those products by up to 40 years. Untreated wood, by comparison, may last less than five years before needing to be replaced. Use of longer-life preserved wood reduces pressure on timber resources, reducing the need to cut timber by a factor of 10. Plus, the manufacture of alternative building and construction materials has typically harsher effects on sustainability than treated wood.

(continued on next page)



Introduction

Living a Zero Harm Culture

Measuring Zero Harm 2016 Progress

Working to Protect Our Common Environment

PC and the Environmental Advantages of Micropro®

Environmental Advances at Koppers RUPS and CMC

Global Achievements

Research and Recognition

Promoting a Positive Social Impact

Safety and Wellness

Koppers in the Community

Support for National Health-Related Charities

Fostering Shared Economic Benefits

Seeking Your Valuable Feedback

Introduction (continued)

Operating According to Accepted Standards

Zero Harm finds its starting point in Koppers' Safety, Health and Environmental policy. This is where our stringent company wide standards establishing requirements and expectations are documented. At Koppers we go beyond what is required by transforming obligatory compliance into personal commitment, which includes engaging stakeholders such as employees, neighbors, community-based organizations, our managers and leadership team, members of our Board of Directors, and our shareholders, in the effort. Keeping these groups informed of our efforts and results, offering opportunities for dialogue and input, and taking their questions, ideas, and concerns into consideration as we strive to continuously improve our efforts, all contribute to the **Zero Harm** foundation of our business.

The Koppers SHE policy calls for:

- Compliance with all applicable safety, health, environmental, and security laws, regulations and other requirements;
- Pollution prevention in order to preserve the environment for future generations;
- Protection of people through product, process, and safety risk management;
- · Continuous improvement in safety, health, environmental, and security performance; and
- Greater stakeholder communication on business operations and risks.

Koppers continues to make progress on an intentional, strategic restructuring of its manufacturing footprint to transition the business from a pitch-centric company serving the aluminum industry to a company focused on solving our customers most challenging problems in wood. A notable and environmentally beneficial byproduct of this strategy comes in a favorable reduction in greenhouse gases achieved in 2016.



Introduction

Living a Zero Harm Culture

Measuring Zero Harm 2016 Progress

Working to Protect Our Common Environment

PC and the Environmental Advantages of Micropro®

Environmental Advances at Koppers RUPS and CMC

Global Achievements

Research and Recognition

Promoting a Positive Social Impact

Safety and Wellness

Koppers in the Community

Support for National Health-Related Charities

Fostering Shared Economic Benefits

Seeking Your Valuable Feedback

Living a Zero Harm Culture

Zero Harm begins with protecting our people and processes, and extending to the communities near our facilities, and to the larger environment. Our internal focus means providing employees with the tools, training, incentives, and authority to identify and promote proper safety practices, while also correcting unsafe practices. A significant long-term investment of more than \$4 million over a four-year period has been made to provide additional resources for process improvement and behavioral safety training for our employees around the globe.

Key company leaders and plant managers worldwide gathered at a **Zero Harm** Forum in Pittsburgh in 2016, with the goal of ensuring that we are aligned in our commitment to **Zero Harm**. An initial rollout of company-wide training among all employees at every facility followed, geared toward converting our vision into measurable, sustainable actions. This process will continue into 2017 and beyond, as **Zero Harm** becomes ingrained in the way we do business.

Members of the Koppers Board of Directors' Safety, Health & Environmental Committee, along with members of the company's senior leadership team, visited our Millington, Tennessee, and Roanoke, Virginia, locations to talk with managers and employees about how the **Zero Harm** message is being received and implemented on the front lines. Through these conversations, connections were strengthened and employees recognized the importance of the **Zero Harm** culture within our company.

At the Koppers Galesburg RUPS facility, **Zero Harm** has taken root in the minds and methods of employees there, according to Plant Manager Jim Evans. "Employees have signed onto it," he said. "They feel like they're being listened to, and morale has gotten stronger. **Zero Harm** is about safety, sure, but it's really about people, interaction, feedback, and acting on ideas." One such idea, generated from an observation made by an employee, was to have material loaded onto a wheelbarrow, so that lifting and moving it would be safer and help avoid back strains.

"Zero Harm goes beyond the numbers," said Evans. "Just because you have no safety incidents doesn't always mean you're running a good plant. This is a culture change, and we're celebrating the victories as they occur. We talk about Zero Harm every day."

Travis Yeoman, manager of the Roanoke facility, added, "It's still early in the process, but with **Zero Harm**, you can already feel a difference. You get a sense in the plant that we're not changing because we have to; we're changing because we want to."

The impact of our **Zero Harm** culture on our employees, communities and the environment takes a number of forms and has generated some early results, many of which are described throughout this report.



Introduction

Living a Zero Harm Culture

Measuring Zero Harm 2016 Progress

Working to Protect Our Common Environment

PC and the Environmental Advantages of Micropro®

Environmental Advances at Koppers RUPS and CMC

Global Achievements

Research and Recognition

Promoting a Positive Social Impact

Safety and Wellness

Koppers in the Community

Support for National Health-Related Charities

Fostering Shared Economic Benefits

Seeking Your Valuable Feedback

Measuring Zero Harm 2016 Progress

Safety

Safety Statistics	2016	2015	2014	2013	2012
Days Away Case Rate	0.91	1.21	0.76	0.90	0.72
DART Rate	1.91	1.90	2.03	1.69	1.66
Total Recordable Rate	2.96	3.45	3.91	3.71	3.99
Fatalities	0	0	0	0*	0

^{*} There was one contractor fatality (non-Koppers employee) in Europe in 2013.

Workforce

Workforce by Region

North America	1385
Europe	168
Australasia	179
South America	18
China	103
Total	1853

Greenhouse Gas Emissions

Greenhouse Gas

Emissions (MT CO ₂ e)	2016	2015	2014	2013	2012
North America	337,641	432,535	433,792	538,815	570,732
Europe	30,140	38,926	55,620	71,615	61,255
Australia/NZ	42,286	36,852	35,370	34,667	105,354
China	33,896	52,859	61,980	46,062	43,982
Total	443,963	561,172	586,762	691,159	781,323

Energy Consumption

Energy Consumption

in gigajoules (GJ)	2016	2015	2014	2013	2012
Direct (Primary)	4,409,806	4,242,103	4,505,862	5,505,510	5,566,432
Energy Consumption					
Indirect (Purchased)	970,860	1,110,213	1,550,090	1,508,389	1,497,049
Energy Consumption					
Total	5,380,666	5,352,316	6,055,952	7,013,899	7,063,481



Introduction

Living a Zero Harm Culture

Measuring Zero Harm 2016 Progress

Working to Protect Our Common Environment

PC and the Environmental Advantages of Micropro®

Environmental Advances at Koppers RUPS and CMC

Global Achievements

Research and Recognition

Promoting a Positive Social Impact

Safety and Wellness

Koppers in the Community

Support for National Health-Related Charities

Fostering Shared Economic Benefits

Seeking Your Valuable Feedback

Working to Protect Our Common Environment

The Koppers approach to environmental stewardship begins with training, collaboration and preventive measures, driven by the tenets of **Zero Harm** and supported by full compliance with all legal requirements, Responsible Care policies, processes and procedures, and adopting environmental best practices. Our employees, customers, and neighbors expect Koppers to respect the environment we share, and our efforts have been energized and prioritized to address and surpass that baseline expectation.



Introduction

Living a Zero Harm Culture

Measuring Zero Harm 2016 Progress

Working to Protect Our Common Environment

PC and the Environmental Advantages of Micropro®

Environmental Advances at Koppers RUPS and CMC

Global Achievements

Research and Recognition

Promoting a Positive Social Impact

Safety and Wellness

Koppers in the Community

Support for National Health-Related Charities

Fostering Shared Economic Benefits

Seeking Your Valuable Feedback

PC and the Environmental Advantages of MicroPro®

We continually evaluate ways to develop products and practices that improve our performance as a corporate citizen and as a business – the very definition of social responsibility. MicroPro®, Koppers PC's flagship wood treatment product, represents a revolutionary way to pressure-treat wood for decks, fences, landscaping, and general construction using micronized copper preservatives in a uniquely environmentally preferable manner.

The process of creating MicroPro® is more environmentally friendly when compared to producing traditional soluble copper-based wood preservatives. The MicroPro® process, which includes the use of recycled copper as the primary raw material, reduces total energy use by approximately 80%, and reduces the release of greenhouse gases by an estimated 20,000 tons or more a year. These figures have been validated by SCS Global Services, which awarded MicroPro® its Environmentally Preferable Product (EPP) designation, the first treated wood process to be so recognized. In January 2017, MicroPro® also received approval of industry standardization by the American Wood Protection Association.

PC is working on securing additional MicroPro® certifications in Australia and New Zealand. Other environmental advantages of this breakthrough technology include:

- MicroPro® is the first treated wood process certified under Scientific Certification Systems Environmentally Preferable Product (EPP) program based on Life-Cycle Assessment.
- MicroPro® has earned certification from National Green Building Standards and UL GREENGUARD Gold, two respected organizations serving the construction industry.

The company has made a sizeable investment in a PC facility where the use of scrap and recycled copper in the wood treatment production process can safely be increased, helping to enhance energy efficiency. All three PC facilities in North America also pursue a standard of operations calling for zero effluent material sent into sanitary sewers, reuse of wastewater, and comprehensive recycling of paper, metal, and plastic. These facilities adhere to number of permits and regulations issued by their respective states and local municipalities.

PC also has invested in equipment and processes to substantially reduce the amount of ammonia emissions that occur while processing copper to create wood treatment chemicals at facilities in Tennessee and South Carolina over next two years. Achieving this goal will require a slightly higher expenditure for Koppers, but will reduce the impact on local communities – an example of **Zero Harm** principles put into practice.







Introduction

Living a Zero Harm Culture

Measuring Zero Harm 2016 Progress

Working to Protect Our Common Environment

PC and the Environmental Advantages of Micropro®

Environmental Advances at Koppers RUPS and CMC

Global Achievements

Research and Recognition

Promoting a Positive Social Impact

Safety and Wellness

Koppers in the Community

Support for National Health-Related Charities

Fostering Shared Economic Benefits

Seeking Your Valuable Feedback

Genesis of MicroPro® Demonstrates Practical Sustainability

In 2005, after years of research and testing, chemists and engineers at Koppers developed a breakthrough technology that mills copper so finely that it becomes "micronized" and can be dispersed, not solubulized, as a wood-treating preservative. This unique application came to market in 2006 as MicroPro®. There are several reasons why MicroPro® had a successful market introduction. The MicroPro® treatment allows users of treated wood products more flexibility for selecting metal fasteners for building outdoor projects such as decks, and fences, and then finishing them with the stain color of their choice, including the lighter shades.

In addition, MicroPro® achieved a number of environmental and green building certifications which ACQ and CA-C could not. MicroPro® has been certified



by SCS Global Services (SCS) for the product's environmental performance. SCS states that wood products treated with the MicroPro® process release up to 99% less copper into aquatic and terrestrial environments when compared with soluble copper treated wood products.

SCS also quantified several additional environmental benefits through a Life Cycle Analysis (LCA) comparison of MicroPro® and ACQ wood preservative systems. Based on the findings of the LCA, SCS has certified MicroPro® as 'environmentally preferable' in the U.S. and Canada. This certification acknowledges products with reduced environmental impacts and no environmental trade-offs, as compared to the benchmark product. Additional SCS findings from the LCA for MicroPro® include:

- Over 90% reduction in energy use, due to concentration of formulation and reduced transportation effort, reduced use of petrochemicals, and reduced manufacturing energy.
- These energy savings also reduce greenhouse gas emissions. For one billion of board feet of lumber treated with MicroPro®, 70,000 metric tons of greenhouse gases are reduced equivalent to removing over 12,000 cars from the road for a year.
- The use of copper, a finite resource, is reduced by over 50% in MicroPro®. In fact, even greater preservation to copper resources is being achieved, as Koppers uses more post-industrial and recycled copper in the MicroPro® manufacturing process.
- MicroPro® is nine times more concentrated than the industry standard, resulting in a reduction in the use of trucks to deliver the product to customers. Fewer trucks led to corresponding reductions of air pollutants from tailpipe emissions oxides of nitrogen (NOx), volatile organic compounds (VOCs), carbon monoxide (CO) and particulate matter (PM) as well as environmental impacts directly related to air emissions such as acid rain, smog, and oceanic acidification. Overall, air emissions are reduced by 80% to 90% compared to the industry standard.
- MicroPro® does not contribute to the disruption of sensitive tropical rainforest habitat.



Introduction

Living a Zero Harm Culture

Measuring Zero Harm 2016 Progress

Working to Protect Our Common Environment

PC and the Environmental Advantages of Micropro®

Environmental Advances at Koppers RUPS and CMC

Global Achievements

Research and Recognition

Promoting a Positive Social Impact

Safety and Wellness

Koppers in the Community

Support for National Health-Related Charities

Fostering Shared Economic Benefits

Seeking Your Valuable Feedback

MicroPro® Treated Timber Creates Unique Boardwalk in Ireland

Cuilcagh Mountain Park in County Fermanagh, Ireland, is striking in its beauty. But the environment there requires special considerations, especially as development occurs. When plans called for construction of one of the longest wooden boardwalks in the world to traverse the green hills of Cuilcagh, only one product fit the bill – MicroPro® treated wood from Koppers.

The design of the 1.6-kilometer MicroPro® treated timber boardwalk allows it to "float" above the terrain, protecting the rare blanket bog from erosion from walking



on it. MicroPro® treated timber was used throughout the project to also protect the boardwalk from harsh weather conditions. Local officials state that it took thousands of years for nature to develop this habitat, and they take its protection very seriously.



Introduction

Living a Zero Harm Culture

Measuring Zero Harm 2016 Progress

Working to Protect Our Common Environment

PC and the Environmental Advantages of Micropro®

Environmental Advances at Koppers RUPS and CMC

Global Achievements

Research and Recognition

Promoting a Positive Social Impact

Safety and Wellness

Koppers in the Community

Support for National Health-Related Charities

Fostering Shared Economic Benefits

Seeking Your Valuable Feedback

Environmental Advances at Koppers RUPS and CMC

Regulatory Compliance

Koppers aggressively monitors and adheres to policy language and regulatory requirements on protecting our employees, neighbors and the environment potentially affected by our operations. The PC, RUPS and CMC businesses all operate under stringent regulations and guidelines of environmental and safety regulatory agencies at the federal, state, and municipal levels around the world. In addition to regulatory requirements, Koppers facilities comply with voluntary industry standards pertaining to employee safety, process safety management, environmental protection, and security.

Treating Wood for Railroad Ties

The wood treatment industry began about 100 years ago, as railroads realized they needed to take a long-term view of their industry. Preserving rail ties became an obvious priority, so they knew they had to use treated wood. In part because treatment extends the life of wood converted into ties, and in part due to careful land management, today in the U.S., wood is actually grown faster than it's being used, creating a surplus of this resource.

Ride-Tight® Rail Car Containment Program

To ensure all rail car shipments of liquid products remain free of leaks and the subsequent environmental impact, Koppers engaged and collaborated with the American Association of Railroads (AAR) and VSP Technologies to implement a comprehensive training, inspection and maintenance program called Ride Tight®. The program has been implemented at all Koppers facilities and contracted railcar service providers in North America, and helps ensure enhanced railcar performance related to safety and protection of the environment.

As a result of our participation in Ride-Tight® Koppers was honored in 2015 and 2016 with AAR's Grand-Slam Award, the most prestigious award attainable for railroad hazardous material shipping.

Additional Performance Highlights

Koppers commitment to protecting the environment continues to drive down the occurrence of reportable releases (spills), with 2016 showing a 57% reduction from 2015 and the fewest occurrences in several years.





Introduction

Living a Zero Harm Culture

Measuring Zero Harm 2016 Progress

Working to Protect Our Common Environment

PC and the Environmental Advantages of Micropro®

Environmental Advances at Koppers RUPS and CMC

Global Achievements

Research and Recognition

Promoting a Positive Social Impact

Safety and Wellness

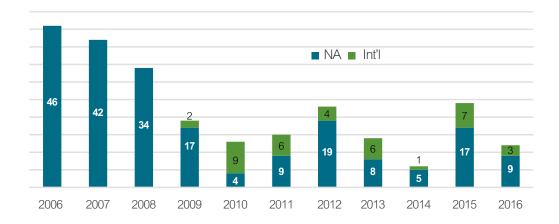
Koppers in the Community

Support for National Health-Related Charities

Fostering Shared Economic Benefits

Seeking Your Valuable Feedback Management and oversight of Koppers wastewater treatment systems and discharge monitoring resulted in a 50% reduction of discharge permit exceedances in 2016.

Wastewater Exceedance Trends



Energy Savings Revealed as Naphthalene Distillation Facility Relocated

As plans were being developed to relocate a naphthalene distillation facility from Follansbee, West Virginia, to Stickney, Illinois, design teams made a fascinating and exciting discovery – a 30% reduction in energy consumption would be achievable, and in an unexpected way.

Traditionally, the Follansbee plant would "pre-wash" the chemical raw material, thereby removing various tar acid byproducts, then ship the "clean" product to Stickney for further refining. Now that the entire production process will be done in Stickney,



once the new facility is up and running, designers were surprised to find that an energy savings was possible by continuing to perform the "pre-wash" function (since the acids have the same boiling point as naphthalene) – and that those tar acid byproducts, when added to carbon dioxide, could be used as fuel in other parts of the plant, creating an energy surplus and a built-in way to put it to use.

That means the new Stickney naphthalene distillation facility will lower energy costs two ways, by more efficient operation of the distillation function and by using self-generated fuel for other parts of the plant – a sustainability success.



Introduction

Living a Zero Harm Culture

Measuring Zero Harm 2016 Progress

Working to Protect Our Common Environment

PC and the Environmental Advantages of Micropro®

Environmental Advances at Koppers RUPS and CMC

Global Achievements

Research and Recognition

Promoting a Positive Social Impact

Safety and Wellness

Koppers in the Community

Support for National Health-Related Charities

Fostering Shared Economic Benefits

Seeking Your Valuable Feedback

Global Achievements

Koppers Australia

Work continues at Koppers Australia on a heat-recovery project, a major capital expenditure, that promises to use discharged heat from a production facility and convert it into electricity, simultaneously reducing emissions and increasing energy self-reliance.

Also, Volvo low-emissions loaders have begun service in Australia. These vehicles, which reduce the use of diesel fuel and associated emissions by more than 30%, transport wood in and around Koppers facilities. These low-emissions loaders will be rolled out across all Koppers plants in Australia over the next two years.

At the Koppers CMC Mayfield plant in Australia, total greenhouse gas emissions have declined by more than 15 percent over the past nine years, due to:

- Executing a comprehensive Energy Management Plan.
- Operating as close to 100 percent capacity as possible, while doing so safely.
- Taking steps to save energy, such as: installing variable speed drives on fans and pumps, replacing inefficient air compressors, improving combustion control and recovering heat from boilers and heaters, upgrading insulation, fixing and replacing steam leaks and traps, and upgrading lighting.

Residue can accumulate inside rail cars that ship chemical products, so Koppers regularly engages contracted services to clean and certify its railcars for reuse. We recycle 100% of those residues.

Water can be a scarce resource in Australia. Koppers took steps in 2016 to contain soil erosion from stormwater by constructing dams and barriers around its facilities. Water conservation efforts also were deployed, including:

- At the Takura plant in Queensland, the amount of water purchased from the municipal water supply has steadily been decreased, from 3,104 kiloliters (kl) in 2013 to 470 kl in 2016, thanks to a recently installed pump-and-filter station and reuse of stormwater.
- At the Bunbury facility in Western Australia, Koppers has continued to increase the amount
 of reused rain and storm water by using a filtration system, a set of storage tanks, sumps and
 a concrete dam.
- At the Longford treatment plant in Tasmania, a new solar-powered pump, installed in 2013, allows the facility to meet 100 percent of its water needs through water collected on-site.
 The facility uses municipal supplies only when there has not been a sufficient amount of rain.
- Koppers Grafton facility in New South Wales utilizes a rooftop rainwater collection system to reduce its dependency on the municipal water supply.

Water captured and re-used at Australian facilities in 2016 is as follows:

Takura: 1,424 kl
Bunbury: 7,147 kl
Longford: 1,100 kl
Grafton: 365 kl



Introduction

Living a Zero Harm Culture

Measuring Zero Harm 2016 Progress

Working to Protect Our Common Environment

PC and the Environmental Advantages of Micropro®

Environmental Advances at Koppers RUPS and CMC

Global Achievements

Research and Recognition

Promoting a Positive Social Impact

Safety and Wellness

Koppers in the Community

Support for National Health-Related Charities

Fostering Shared Economic Benefits

Seeking Your Valuable Feedback

Global Achievements (continued)

Koppers Europe

Koppers operations in Europe achieved some important milestones in 2016, including:

- Making investments in environmental cleaning techniques (air and surface water) as part of seeking a new environmental permit.
- Earning ISO50001 Energy Management System certification.
- Achieving reductions in NO_x and SO_x air emissions.
- Performing biological treatment of wastewater.
- Receiving the Danish "Miljøforum Fyns" award for overall environmental performance.



Introduction

Living a Zero Harm Culture

Measuring Zero Harm 2016 Progress

Working to Protect Our Common Environment

PC and the Environmental Advantages of Micropro®

Environmental Advances at Koppers RUPS and CMC

Global Achievements

Research and Recognition

Promoting a Positive Social Impact

Safety and Wellness

Koppers in the Community

Support for National Health-Related Charities

Fostering Shared Economic Benefits

Seeking Your Valuable Feedback

Research and Recognition

Product Stewardship

Koppers defines product stewardship as the ongoing effort to minimize the environmental health and safety impact of our products, including using alternative raw materials with a lower carbon footprint where feasible, evaluating the processes used to manufacture Koppers products, and working to reduce consumption of energy and water.

In the product lifecycle, every player in the process has to be aware and engaged in minimizing impact, including suppliers. We vet our suppliers using a Commercial Partner Qualification Process regarding the materials they use and other key policies and practices. Koppers also utilizes a global product and raw material risk assessment to establish risk profiles for safe handling by employees and end-users. In addition, we track metrics for TSCA Import Certifications as well as regarding authoring of Safety Data Sheets.

Research Lab Assists in Sustainability

Researchers at the Koppers Global Technology Center (KGTC) create and test new forms of carbon pitch and other chemical products, both to extend our product line into new uses and markets, and at the request of customers. Located at the University of Pittsburgh Applied Research Center, KGTC—often in collaboration with outside entities—provides Koppers with key laboratory research capabilities and access to a local talent pool with the chemical engineering skills essential to our growth.

Stakeholder Collaboration and Recognition

Koppers commitment to sustainability has been demonstrated through our collaborative efforts with stakeholders, resulting in recognition by several customers and industry groups in a variety of ways:

- Koppers in 2016 received an award from CSX, our largest customer, as part of the CSX Corporate Social Responsibility and Sustainability Conference. CSX has hundreds of suppliers, and performs an annual survey of their safety, health, and environmental programs. As part of its Supplier Recognition Program CSX measures suppliers not only on their ability to perform their contracted duties, but also by the value and productivity they bring beyond the contract in four areas: Innovation, Corporate Social Responsibility & Sustainability, Customer Service Excellence and Strategic Value. In 2015 CSX requested Koppers to serve as a model for other suppliers on how we go about our sustainability business.
- The Union Pacific railroad completes an annual scorecard for Koppers, measuring all aspects of the relationship, including sustainability metrics. In its most recent scorecard, Union Pacific noted Koppers reduction in CO2e emissions.
- Koppers qualified for the National Safety Council's Occupational Achievement Award in 2016 for the second year in row. This award requires a company to achieve a safety record better than 50% of the industry average.
- The Tennessee Department of Labor & Workforce Development honored the Koppers Millington Plant for the fourth time with the Volunteer STAR (Safety Through Accountability and Recognition) award. The Volunteer STAR award is the state's highest honor for workplace safety and health, and a nationally recognized program. It is patterned after the OSHA Voluntary Protection Program, recognizing excellence in safety and health programming and performance.
- The American Wood Protection Association (AWPA) in 2016 approved listing PC's MicroPro
 technology in the AWPA Book of Standards, to be published in mid-2017. This is a significant
 indication of a major industry association recognizing our technology as an industry
 standard.
- Koppers is active in the Treated Wood Council (TWC), including having company
 representatives serve on its board. TWC sponsors industry related research, provides public
 services and industry information, and is represents the wood preservation industry in
 governmental affairs.



Introduction

Living a Zero Harm Culture

Measuring Zero Harm 2016 Progress

Working to Protect Our Common Environment

PC and the Environmental Advantages of Micropro®

Environmental Advances at Koppers RUPS and CMC

Global Achievements

Research and Recognition

Promoting a Positive Social Impact

Safety and Wellness

Koppers in the Community

Support for National Health-Related Charities

Fostering Shared Economic Benefits

Seeking Your Valuable Feedback

Promoting a Positive Social Impact

Quality of life encompasses many ideals, the first of which is to cause no harm to people, property, or the environment. Koppers exists within the context of the communities where it has a presence. As such, we owe the people there a corporate neighbor they can rely on to keep our shared communities safe, clean, and economically healthy – in short, a company that contributes positively to the quality of life.

Zero Harm features prominently in this area, as well, along with the Zero Waste effort to conserve resources and minimize waste products from Koppers operations. Toward these ends, we focus on continuous improvement in process safety, transparency, and safe operations.

Overall safety performance at Koppers, as measured by the total recordable rate of safety incidents companywide, improved from 3.45 in 2015 to 2.96 in 2016. The spirit of **Zero Harm**, however, tells us that behind each statistic are individual employees, their families, and the wider circle of friends, co-workers, and associates. Our goal, then, remains sustaining a culture where no harm comes to any employee at Koppers. The impact of a **Zero Harm** culture gained deeper exposure and acceptance in 2016, the mindset has been strengthened, and this promises to be an ongoing mission.

Koppers commitment to **Zero Harm** also involves engaging external stakeholders to understand their concerns about company operations and connecting on a regular basis with communities and industry organizations. We actively work to anticipate and evaluate community and industry needs as part of demonstrating our corporate citizenship. Some examples of this involvement include:

- Community Advisory Panels, which offer a forum for observations and ideas regarding improvement opportunities.
- Participation in local emergency planning and response activities to assist in keeping local communities safe.
- Support for local volunteer efforts in the form of either direct employee involvement or financial contributions.
- Transparent reporting of sustainability data to inform our stakeholders.

Participation in industry associations, to better understand the perspectives of key audiences such as regulators and product safety groups. A sampling of the organizations that we support include:

- · American Chemistry Council
- American Coke and Coal Chemicals Institute
- American Railway Engineering and Maintenance-of-Way Association
- American Wood Protection Association
- Association of American Railroads
- Carbon Disclosure Project
- Pavement Coatings Technology Council
- Railway Tie Association
- Treated Wood Council



Introduction

Living a Zero Harm Culture

Measuring Zero Harm 2016 Progress

Working to Protect Our Common Environment

PC and the Environmental Advantages of Micropro®

Environmental Advances at Koppers RUPS and CMC

Global Achievements

Research and Recognition

Promoting a Positive Social Impact

Safety and Wellness

Koppers in the Community

Support for National Health-Related Charities

Fostering Shared Economic Benefits

Seeking Your Valuable Feedback

Safety and Wellness

PC a Safety Leader

Two PC facilities – Rock Hill and Millington – have earned and maintained Voluntary Protection Program certification from the U.S. Occupational Health and Safety Administration (OSHA). This is in recognition of the outstanding efforts of our employees who have achieved exemplary occupational safety and health. PC has held this OSHA distinction for the past 10 years.

The research and development arm of PC, as it continuously works on developing and testing new products for wood treatment, adheres to strict safety practices and procedures, backed by ongoing training and starting with an orientation for new employees on the proper handling, storage, documentation, and personal protection required around chemicals. As chemicals are used and projects completed, all chemical waste is stored, labeled, and classified into categories before an outside environmental company removes it, following Koppers safety standards.

Acknowledging the expertise of the PC team and its product performance, various industry groups regularly host technical presentations by PC representatives. These organizations include the International Research Group, the Canadian Wood Preservation Association, and the Canadian Standards Association. PC managers remain engaged as members of these groups, including some in leadership roles.

Enhancing Process Safety

2016 saw a deeper commitment to implementing process safety globally, starting with CMC and PC, bringing those business units' systems and processes up to Responsible Care standards. In 2016 every CMC manufacturing site around the world developed a baseline of process safety status to be used to measure progress and Koppers invested in a number of new software systems and training programs to help improve process safety. Once CMC and PC chemical facilities reach the expected level of performance for process safety the program will be implemented in RUPS.

Wellness Remains a Priority

Wellness programs have long been a standard element of life at Koppers worldwide, and continue to be so today. Employees have regular access to smoking cessation programs, onsite exercise and fitness options. Employees also are encouraged to hold, regular conversations with their managers about wellness practices, with certain locations and work groups generating their own reward programs to encourage greater participation.



Introduction

Living a Zero Harm Culture

Measuring Zero Harm 2016 Progress

Working to Protect Our Common Environment

PC and the Environmental Advantages of Micropro®

Environmental Advances at Koppers RUPS and CMC

Global Achievements

Research and Recognition

Promoting a Positive Social Impact

Safety and Wellness

Koppers in the Community

Support for National Health-Related Charities

Fostering Shared Economic Benefits

Seeking Your Valuable Feedback

Koppers in the Community

Active community engagement provided by Koppers, made through donations of time and resources, positively impact quality of life. Here are highlights of our involvement in health and wellness-related organizations, and those that work in education, environmental, or business-related fields.

Performance Chemicals Employee Leads Peachtree City Community Project

Peachtree City, a small town in Georgia, located not far from the PC facility in Griffin has been home to Koppers employee and recent CERT (Community Emergency Response Team) graduate, Bob Wangel, for more than 25 years. Bob conducted a simulation training exercise with the Peachtree City Police Department's Special Response Team (SRT), where one of the officers mentioned the Peachtree City Police SRT unit's desire to build a new structure for their existing training facility. The officer had placed a request to build a structure that contained ropes, rings and pull-up bars, but could only get approval to install two pull-up bars due to budget constraints.

After hearing this, Bob requested approval from the SRT Commander and Police Chief to design and donate a similar structure. After drawing up a set of plans, he requested and received approval for a donation of funds and materials from Koppers. In addition, he convinced the local Home Depot to provide some materials and assist with the build.

Pittsburgh United Way Campaign A Success

Following a dynamic fall campaign, including employees volunteering at the Greater Pittsburgh Food Bank, the final tallies of donations were very impressive:

- 92% of Pittsburgh-area employees participated in at least one campaign event
- More than \$58,000 was raised through events and employee pledges
- Employee pledges increased more than 9% over the 2015 number
- 94% of pledges were sustained giving donations

Thanks to the enthusiastic support of Koppers Pittsburgh-based employees, essential support services will continue to be provided to many neighbors in need.











Introduction

Living a Zero Harm Culture

Measuring Zero Harm 2016 Progress

Working to Protect Our Common Environment

PC and the Environmental Advantages of Micropro®

Environmental Advances at Koppers RUPS and CMC

Global Achievements

Research and Recognition

Promoting a Positive Social Impact

Safety and Wellness

Koppers in the Community

Support for National Health-Related Charities

Fostering Shared Economic Benefits

Seeking Your Valuable Feedback

Community Involvement Remains a Hallmark of Koppers and Its People

Nyborg Plant Prepares Workforce of Tomorrow – The Higher Commercial Examination Program (HHX), a three-year business-oriented educational program in Denmark, that promotes vocational education and training in commerce, clerical trades and public administration. A team from the Koppers Nyborg Plant worked with its student team, learned



about the company, its systems and people, as part of this initiative.

Stickney Employees Make Science Cool – Each year, the Chemical Industry Council of Illinois (CICI) and the Illinois Chemical Education Foundation (ICEF) conduct The Career Conference, a two-day event designed to introduce 2,200 high school and junior high school students to chemical industry careers by showcasing science. Fifteen Koppers Stickney employee volunteers used handson interactive demonstrations on a variety of topics, from why chemical reactions occur to when it's important to wear a hazmat suit.

PC Supports Multiple Educational Offerings – Examples include:

- PC Employee Scholarship with Gordon College in Barnesville, GA. Each year, the Gordon school board chooses an eligible student that is a child, spouse, or employee of our company.
- Jimmy Rane Charity Foundation. This has helped hundreds of deserving young people achieve their dreams of a college education.

Germanna Community College, a cause important to PC business associates at Culpeper Wood Preservers. The Germanna scholarship fund provides quality, accessible, and affordable educational opportunities for the residents in the Culpeper area of Virginia.

Roanoke Plant Partners with 'Adopt-a-Stream'

The Glenvar High School (GHS) Fishing Club visits the Koppers Roanoke Plant two times each year as part of Virginia's Adopt-A-Stream Program, which seeks to increase the number of clean river miles within the state. With a mutual interest in safeguarding our natural resources, Koppers employees and GHS students team up to remove litter from the scenic Roanoke River bordering plant property. After a morning of hard work, the Roanoke Plant provides a pizza lunch and the students spend the remainder of the afternoon fishing. The 2016 Fall River Clean Up Day events, coordinated by GHS faculty



and Roanoke Plant Manager Travis Yeoman, provided students and employees with a fun and meaningful way to give back to their community.



Introduction

Living a Zero Harm Culture

Measuring Zero Harm 2016 Progress

Working to Protect Our Common Environment

PC and the Environmental Advantages of Micropro®

Environmental Advances at Koppers RUPS and CMC

Global Achievements

Research and Recognition

Promoting a Positive Social Impact

Safety and Wellness

Koppers in the Community

Support for National Health-Related Charities

Fostering Shared Economic Benefits

Seeking Your Valuable Feedback

Koppers Global Technology Center Employees Champion STEM Education

In 2016, the Koppers Global Technology Center (KGTC) team partnered with New Castle (PA) Area School District to help sponsor an eight-week science/technology/engineering/math (STEM) program for students from pre-K to second grade, made possible by a grant from the Pennsylvania 21st Century Community Learning Center. The purpose of the grant was to provide academic, artistic and cultural enrichment opportunities to underprivileged students to help them meet state and local standards in core academic subjects. Koppers employees served as STEM advisors, developing eight



weeks of activities, and even providing all 125 students with lab coats. Students focused on recycling, states of matter, ecosystems and human motion. These hands-on activities had students observing, predicting, analyzing, connecting and critiquing – all skills necessary for success in a 21st century global marketplace.

"When a 5-year-old walks up to you and tells you that they want to be a scientist when they didn't even know what a scientist was six weeks ago — that makes the whole program worthwhile," said Stacey McKinney, KGTC manager. "One little boy told me he thinks his brain works better with a white lab coat on!"

Koppers Leadership Active in '2020 Women On Boards' Group

Koppers CEO Leroy Ball and General Counsel Steve Lacy have been active in promoting the 2020 Women On Boards organization, which works to achieve a 20% representation of women on corporate boards by the year 2020. The Pittsburgh chapter presented Leroy with its 2016 Board Diversity Ambassador Award, recognizing Koppers as a "winning company" due to our seven-year track record of having more than 20% percent of board seats filled by women. The current Koppers Board of Directors includes Cynthia Baldwin and Sharon Feng.





Introduction

Living a Zero Harm Culture

Measuring Zero Harm 2016 Progress

Working to Protect Our Common Environment

PC and the Environmental Advantages of Micropro®

Environmental Advances at Koppers RUPS and CMC

Global Achievements

Research and Recognition

Promoting a Positive Social Impact

Safety and Wellness

Koppers in the Community

Support for National Health-Related Charities

Fostering Shared Economic Benefits

Seeking Your Valuable Feedback

Koppers Maintains Legacy of Support for National Health-Related Charities

Leukemia & Lymphoma Society of Western Pennsylvania – Koppers CEO Leroy Ball serves on the board of this non-profit organization, which is dedicated to supporting blood cancer research and providing cancer patients and their families with direction and support in dealing with their diagnoses. Leroy chaired the annual "Light the Night" walk in Pittsburgh in 2016, in which Team Koppers fielded 71 walkers, including employees, family members and friends, helping to raise more than \$68,000 in donations, including a corporate contribution. Koppers employees in Madison, WI, Griffin, GA, and St. Louis, MO responded to his appeal to take part in their local walks, as well.

American Heart Association – Team Koppers raised more than \$41,000 for this organization, including supporting its annual Heart Ball gala and Heart Walk. Koppers General Counsel Steve Lacy serves on the board of the Western Pennsylvania Chapter.

National Kidney Foundation (NKF) – Koppers takes part in this organization's Kidney Gift of Life event, as well as the NKF Golf Classic, to help raise funds in support of its vital research into kidney disease. Koppers Senior Vice President, Global Carbon Materials and Chemicals Jim Sullivan serves as a board member for the Western PA chapter.

Juvenile Diabetes Research Foundation (JDRF) – Koppers supports the yearly JDRF Promise Gala and Tee Up golf outing. Joe Dowd, executive for Koppers Safety, Health and Environmental programs, serves on the Western Pennsylvania chapter's board.

Pittsburgh Pirates Sponsorship – Koppers also supports the four health-related organizations mentioned above through a sponsorship with the Pittsburgh Pirates of Major League Baseball. Every time a Pirates pitcher strikes out an opposing batter during a home game, Koppers donates \$100 to one of the four charities, which rotate by month. During the 2016 baseball season, Koppers made more than \$103,000 in donations to help improve the health and wellness of individuals and families.

Susan G. Komen Race for the Cure – Koppers fields a team of runners in the annual Race for the Cure, supporting research, screening, treatment, and education regarding breast cancer.

Holiday Season Activities

- Koppers volunteers from Galesburg and Pittsburgh participated as holiday bell-ringers in The Salvation Army's Red Kettle Campaign, which raises funds to provide food, toys and clothing to more than 6 million people during the Christmas season, and more than 34 million Americans nationwide each year.
- At Stickney, two large donation boxes for the U.S. Marine Corps' "Toys for Tots" campaign were brought into the Stickney plant and filled by employee donations.
- Employees in Nyborg, Denmark, visited "Strandvaenget," a center for those seeking political asylum, to help with holiday decorating.
- The Mayfield facility assembled Christmas packages for seafarers visiting the Port of Mayfield during the holidays.
- And in Ashcroft, employees teamed again with the Area Community Resource Society to put together Christmas Hampers of food for families in need during the holiday season.



Introduction

Living a Zero Harm Culture

Measuring Zero Harm 2016 Progress

Working to Protect Our Common Environment

PC and the Environmental Advantages of Micropro®

Environmental Advances at Koppers RUPS and CMC

Global Achievements

Research and Recognition

Promoting a Positive Social Impact

Safety and Wellness

Koppers in the Community

Support for National Health-Related Charities

Fostering Shared Economic Benefits

Seeking Your Valuable Feedback

Fostering Shared Economic Benefits

The true priorities of an organization can be seen where it invests dollars, resources, and people. The Koppers belief in sustainability demonstrates this principle across a number of platforms. **Zero Harm** comes into play here, as well, in the sense that Koppers remains keenly aware of how its presence affects local and regional economies, along with its shareholders and the investment community. When we live every day by practicing a **Zero Harm** mentality, it can lead to better operational performance, improved cost efficiency, and solid economic performance.

Koppers provided more than \$140 million in salary and wages to its employees worldwide in 2016. The cumulative impact on state and local municipalities in the U.S. through taxes paid by employees and the company totaled \$3.7 million in 2016, helping to support basic community services, including maintenance, law enforcement, recreational facilities, and more. Koppers also has a significant impact on local economies through employee salaries used to stimulate regional economies, as well as providing a market for related support businesses.

The financial contribution Koppers makes toward local organizations to improve quality of life for area residents, including the support of the arts, sports, and charitable services, totaled more than \$600,000 in 2016.

Lastly, Koppers invested more than \$6 million in 2016 for research and development of safer, more environmentally sound products and processes.



Introduction

Living a Zero Harm Culture

Measuring Zero Harm 2016 Progress

Working to Protect Our Common Environment

PC and the Environmental Advantages of Micropro®

Environmental Advances at Koppers RUPS and CMC

Global Achievements

Research and Recognition

Promoting a Positive Social Impact

Safety and Wellness

Koppers in the Community

Support for National Health-Related Charities

Fostering Shared Economic Benefits

Seeking Your Valuable Feedback

Seeking Your Valuable Feedback

As society continues to evaluate and act on major concepts and concerns, Koppers will continue to adapt accordingly. Maintaining a primary focus on the safety of our employees, the well-being of our communities, and the protection of the larger environment can – and must – coexist with the successful operation of our company. That is what we believe at Koppers. This defines **Zero Harm**, the foundational attitude and approach to our business.

We are committed to continuing our sustainability efforts so that the next generation and those that follow can live in a society that is safe, healthy, and prosperous.

The pledge to operate in a sustainable manner never ends, and this pledge requires us to always look for a better way. Koppers will keep working to operate as a responsible corporate citizen regarding effective sustainability strategies and practices through our focus on advancing and deepening a **Zero Harm** culture.

We will continue to provide regular updates on our actions and our progress, and invite your feedback to maintain a productive dialogue with our customers, suppliers, neighbors, and all other stakeholders.