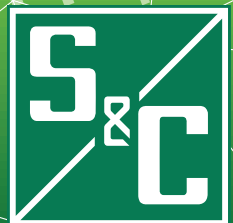


# 2014 Sustainability Report



## TABLE OF CONTENTS

|   |    |
|---|----|
| President's Message.....                        | 3  |
| Environmental Policy .....                      | 4  |
| Corporate Initiatives.....                      | 5  |
| Conservation Trends                             |    |
| Recycling and Waste Diverted from Landfill..... | 6  |
| Energy Performance                              |    |
| Electricity, Natural Gas, and Water Use .....   | 7  |
| Emissions                                       |    |
| VOC and HAP .....                               | 7  |
| Employee Safety                                 |    |
| ICON for Safety .....                           | 8  |
| DART and Lost Time Rates.....                   | 9  |
| International Activities                        |    |
| Asia.....                                       | 10 |
| Canada .....                                    | 11 |
| Europe, Middle East, and Africa (EMEA).....     | 11 |
| South America .....                             | 11 |

## Our Message

S&C has demonstrated excellence in environmental stewardship for more than a century, long before “green” became a universal goal and a household term. We’ve always taken pride in conducting our business ethically and responsibly, and in a manner that’s beneficial for our fellow citizens and the planet. From using safe and environmentally sound manufacturing practices to helping integrate renewable energy resources into the electric power grid, our actions consistently reflect our commitment to sustainability. We’re always working to reduce our own environmental footprint, from minimizing our air pollutants and water use to maximizing the recycling of our materials and developing even more environmentally friendly products and services. Motivated by civic loyalty and concern, our headquarters in Chicago, Illinois, strives to be a responsible, caring member of our local and global communities. This same approach prevails at S&C’s other U.S. facilities, and at our companies in Canada, Europe, Mexico, China, and Brazil.



# At S&C, It's About More than Just Keeping Folks' Lights On

By Kyle Seymour, President and CEO,  
S&C Electric Company

As a leading global supplier of switching and protection products for electric power transmission and distribution, S&C is involved in millions of people's lives each day. And while our products and services help meet household and business demands for power, our engineering offices and manufacturing and assembly facilities around the world take pride in working hard for the good of the company's team members, our customers, and the planet's environmental well-being as a whole.

Sustainability is a strategic S&C core value. We work diligently to keep emissions low and the amount of refuse going to landfills to a minimum; S&C has a zero-landfill goal through ever-growing recycling efforts. We also strive to reduce hazardous air pollutants, and to keep dangerous chemical use within our facilities at a minimum. Despite operating a large manufacturing facility at our headquarters in Chicago, Illinois, 100% of the 39 MWh of electricity used in our 1.2 million-square-foot complex in 2014 came from renewable sources.

Sustainability also is playing an important role as we expand.



For example, when we opened a new four-floor office building in Chicago in 2014, we paid strict attention to a broad range of environmental, community, and other factors throughout its design and construction. We discuss that building project in greater detail on page 5.

Many of S&C's sustainability activities also affect our customers. In 2014 we began using recycled cardboard when shipping our products. We also began using reusable plastic bins to receive parts from a broad assortment of suppliers, dramatically reducing packaging waste that otherwise would end up in a landfill. Many of the same sustainability efforts underway in Chicago also are playing out in our other manufacturing and

assembly facilities around the globe, including in Asia, Europe, Canada, and South America.

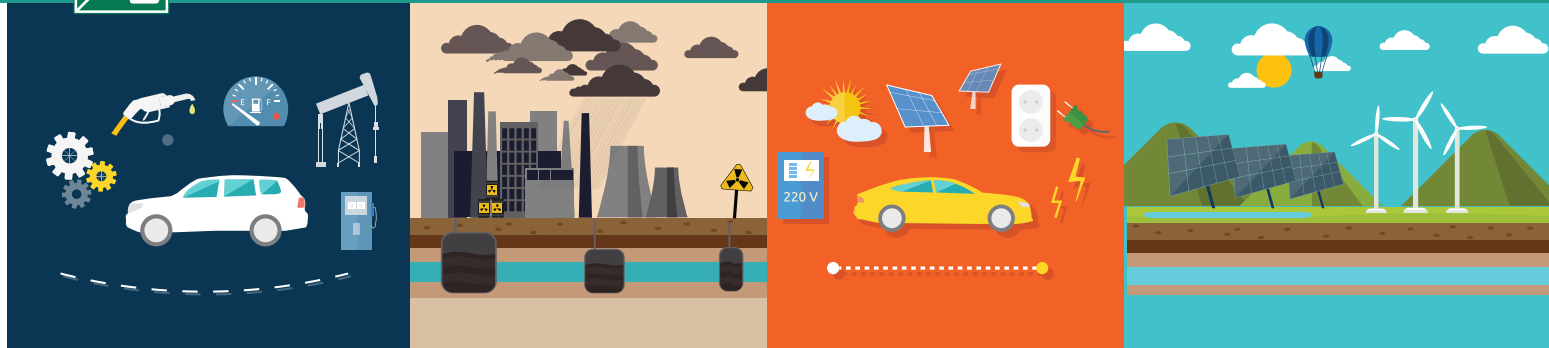
Keeping our workers safe also is a top S&C sustainability priority, as is maintaining a diverse workforce. At our Chicago campus, S&C, which in 2014 earned the rank of 78th largest employee-owned company by the National Center for Employee Ownership, employs more than 1,700 team members, more than half of whom fall into minority categories. Globally, our exemplary safety program has succeeded in keeping our team members safe, with yearly Days Away, Restricted, or Transferred (DART) rates always well below the average for manufacturing companies.

S&C is never satisfied with the status quo—not for our products, and certainly not for our environmental and safety efforts. Sustainability is at the heart of what we do as a manufacturer. Because of this importance, our efforts to find new ways to maintain a safe environment both internally and externally will continue to expand and positively impact our customers, our operations, and the environment worldwide.

*Kyle H Seymour*



## ENVIRONMENTAL POLICY



Among the corporate principles laid out in S&C Electric Company's Statement of Purpose and Guiding Principles is a determination that "all of S&C's dealings are bound by rock-solid integrity," and a commitment to "maintain a strong and supportive relationship with the communities in which we work."

These Guiding Principles are brought to life every day in a variety of ways, from a refusal to tolerate unethical conduct in any aspect of our business to an expectation that all S&Cers will work in a manner that respects the safety and well-being of those around them.

One of the key manifestations of these Guiding Principles is a commitment to responsible corporate citizenship with regard to the environment. Toward that end, S&C's commitment is to:

- ▶ Comply with all accepted environmental practices, including meeting or exceeding applicable legal and other requirements;
- ▶ Minimize waste and prevent pollution, while striving for greater use of sustainable sources of energy and materials;
- ▶ Continually improve our Environmental Management System through performance evaluation of procedures and indicators;
- ▶ Take into account environmental aspects to minimize environmental impact when developing new products and services; and,
- ▶ Communicate this policy internally and externally with interested parties, and with those that work for and on S&C's behalf.

The Environmental Management System, which is developed in accordance with ISO 14001-2004, encompasses all the activities involved in the operation of S&C's business.

### Product Impact

S&C offers a wide range of products and services to integrate wind and solar power. Our solutions have contributed to the integration of 8 GW of renewable wind energy and 1.4 GW of solar energy. In 2014, S&C was the 23rd largest solar contractor, according to *Solar Power World*.





# CORPORATE INITIATIVES

As S&C continues to grow, we are paying particularly close attention to the impact new buildings could have on our environment. In May 2014, S&C opened a new four-floor, 50,000-square-foot building at its Chicago, Illinois campus to house its expanding Power Systems Solutions and Strategic Solutions operations. Besides underscoring our dedication to growing our capabilities as a 21st century solutions provider, the facility, dubbed Building 14A, also illustrates S&C's commitment to a cleaner environment for its team members and for the local community.



S&C's environmentally friendly LEED Silver-certified Building 14A.



Owning the world's first v4 Silver-certified office building through the Leadership Energy & Environmental Design (LEED) certification program, S&C paid close attention to a broad range of environmental, community, and other factors when designing and constructing Building 14A. LEED v4 is an optimized version of the widely respected certification program for "high-performance green buildings." This involved use of coating materials with no or low volatile organic compounds (VOCs), and highly efficient electrical lighting and mechanical systems. The building has an Energy Star-rated heat-reflective roof, and its windows are highly reflective and krypton insulated, thus decreasing electricity and natural gas used for heating or cooling.

Utilities throughout the building are submetered, enabling S&C to collect daily, monthly, and annual data on gas, water, and electricity consumption, which is a LEED requirement. Even basic things are measured and addressed, as noted in the chart below:

## BUILDING SUSTAINABILITY

|  |
|--|
| Between May and December 2014, Building 14A's water fountains prevented use and disposal of 19,283 plastic water bottles by accommodating reusable container refills.  |
| Restrooms use efficient fixtures, including some that use 88% less water than traditional appliances.  |
| For water consumption, S&C buys offset credits usable toward water-related environmental projects. S&C also uses renewable energy credit offsets for all electricity used, and it purchases carbon credits to offset the CO <sub>2</sub> generated by the natural gas used to heat the facility. |
| Lighting controllers and occupancy sensors automatically turn off mechanical ventilation and electrical systems when areas of the building aren't in use.  |
| Detectors in the HVAC system monitor for CO <sub>2</sub> to control and keep the air fresh.  |

LEED certification is not solely about energy use; it also is about designing a safe environment for building occupants. As such, we implemented highly efficient air filtration in Building 14A.

The new building also complies with LEED-required commitments to local neighborhood improvement, housing facilities, public transit access, support for bicycle commutes, and other factors. The building's parking lot includes electric vehicle charging stations, and the sidewalk around the facility is permeable so water drains into the ground instead of Chicago's storm-water system.

Building 14A now serves to anchor S&C's future-forward position as a company that continues to innovate, adapt, and grow for the benefit of our customers, our employee owners, and the planet as a whole.



Building 14A is S&C's second LEED-certified building in Chicago. S&C's Advanced Technology Center that houses the Nicholas J. Conrad Laboratory and its two 850-MW electrical short-circuit test generators, holds a LEED "Gold Certification" rating per the U.S. Green Building Council. The 43,000-square-foot structure minimizes environmental impact through numerous energy-efficient and sustainable design features. These include an 8,000-square-foot "green" roof, and use of recycled content, locally produced building materials, and other innovative measures.



## CONSERVATION TRENDS



### Recycling and Waste Diverted from Landfill

S&C remains committed to becoming a landfill-free company, and we have been recycling scrap metal, cardboard, paper, aluminum cans, and other materials for decades. In 2014, S&C's U.S. operations diverted **80% of waste away from landfills, with 65% of that waste being recycled, 11% being treated**, and the rest being turned into or burned as fuel for either municipal or industrial use.

During 2014, we began a project to expand our waste recycling to include shrink wrap traditionally placed in our trash compactor. S&C generates a lot of shrink-wrap refuse, as components and other items that come to the Chicago campus commonly are packed in the plastic material for protection. Today, special collection carts have been placed throughout the facility, and the material is collected and baled for recycling.

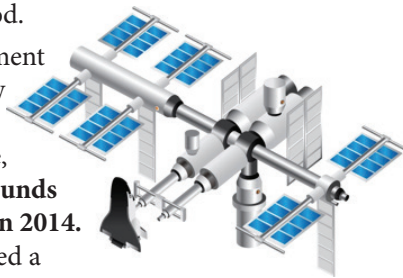
We currently are working with our trash hauler to identify all other materials routinely placed in the compactor and eventually taken to a landfill. As part of that project, materials placed in the compactor over a 24-hour period were separated, categorized, and weighed. S&C will use the resulting research report to determine what other items can be recycled.

Through our arrangements with parts vendors, everything used to arrive at the Chicago campus in boxes or crates that then became waste. Now, we send our vendors collapsible plastic bins that they fill and send back to us. It eliminates a lot more packaging materials, especially wood.

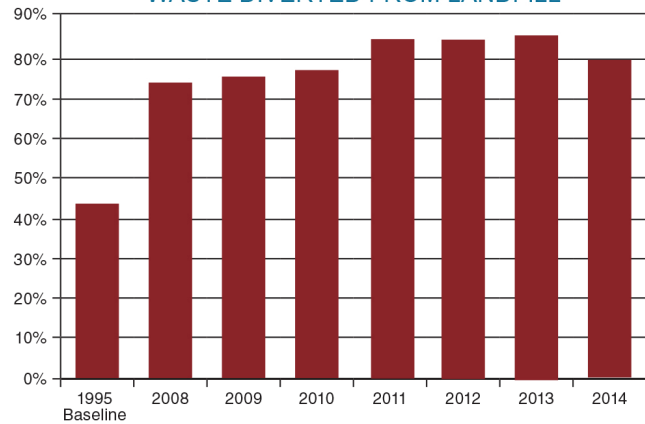
Through an arrangement with a supplier, S&C now recycles all used wooden pallets that we do receive, removing **1.4 million pounds of wood from landfills in 2014**.

We also recently identified a recycler for scrap and shredded wood that will allow us to recycle an **additional 330 tons of wood material annually**, a weight that is equivalent to the International Space Station.

For our metal-recycling efforts, all small-part scrap metal is collected and the oil lubricant spun off using a special machine. The metal is then separated by type. Larger metal-scrap sheets also are recycled.



WASTE DIVERTED FROM LANDFILL

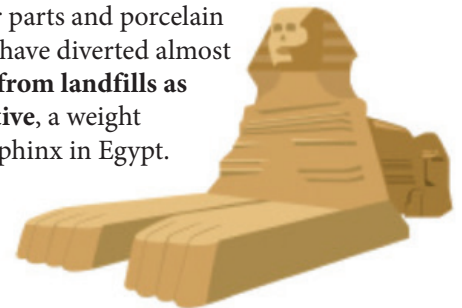


**Note:** Data through 2013 are for S&C's main manufacturing facility in Chicago; 2014 data represent all U.S. operations.

We continue to seek out more recycling opportunities. We have begun to explore composting the materials from our cafeteria in Chicago. And while recycling paper, bottles, and cans has been a staple in the offices, we expanded the practice to the product-production areas two years ago.

**AT S&C**, we also continue the sustainability efforts we began in past years. In 2011, S&C's Safety and Environmental Affairs Department conducted a drive during which employees could bring in old electronics for recycling. A year later, Illinois, the state in which S&C's headquarters is based, banned electronics from landfills. We now encourage team members to bring in their old, unused electronics, and we provide a location where they may drop off their discarded electronics at any time. We also have been recycling batteries for several years, and this has included encouraging team members to bring in their dead batteries from home.

We also continue to use a recycler for scrap Cypoxy™ Insulator parts and porcelain insulators, and we have diverted almost **200 tons per year from landfills as part of that initiative**, a weight equivalent to the Sphinx in Egypt.



# ENERGY PERFORMANCE

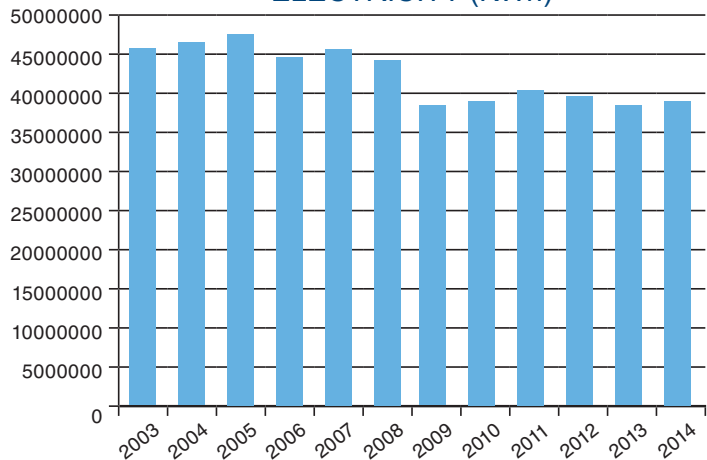


## Electricity, Natural Gas, and Water Use

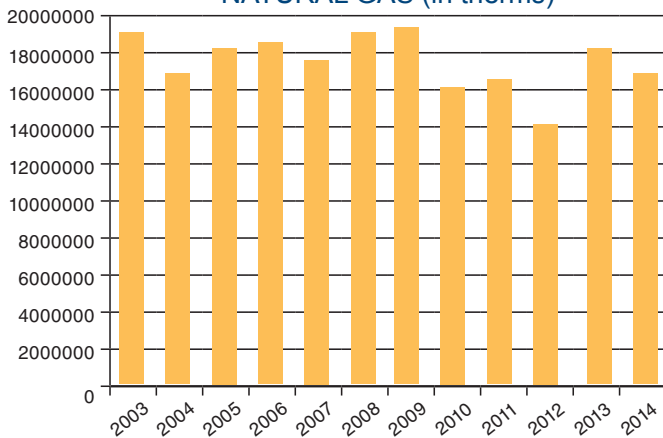
All electricity used at S&C's Chicago campus is acquired using renewable-energy credits. These purchased offsets of approximately 39 MWh each year will **eliminate an estimated 63 million pounds of carbon dioxide (CO<sub>2</sub>) emissions annually**, the same weight as 1 million cubic feet of sea water.

Conservation efforts and enhanced efficiency through improved lighting and other activities have helped S&C control its utility use. Electricity and water use in 2014 grew only slightly, while our natural gas use dropped, even as we expanded building square footage to accommodate our continued business growth.

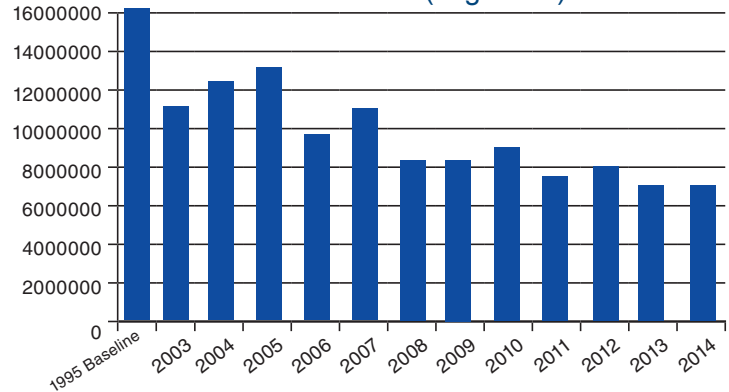
ELECTRICITY (KWh)



NATURAL GAS (in therms)



WATER (in gallons)



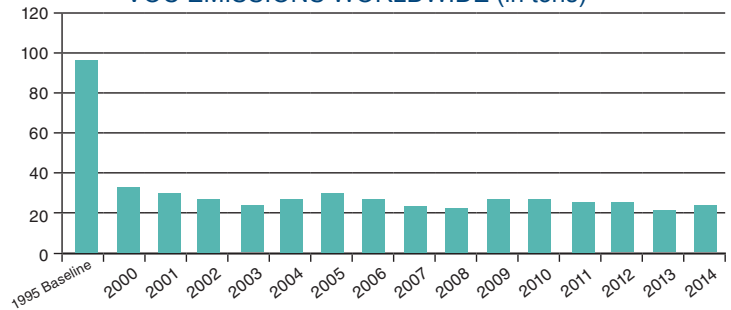
## Emissions

In 2014, S&C **produced 22 tons of volatile organic compounds (VOCs) and 0.1 tons of Hazardous Air Pollutants (HAPs)**. This was significantly lower than in past years because of a switch from the use of a solvent-base coat to a powder base coat in our paint line.

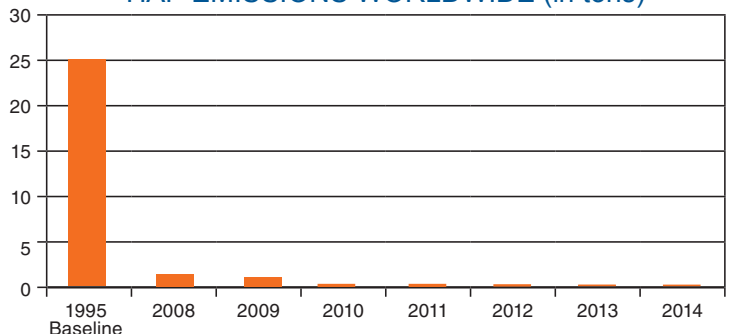
We also are near the end of a five-year effort to eliminate use of all VOCs. In the mid-1990s, S&C produced nearly 100 tons of VOCs. We intend to eliminate VOC use altogether as we move to powder-on-powder paint by the end of the decade. At least 50% to 60% of the flush line solvent we use now to clear paint lines contains no VOCs at all, and we capture the compounds that are used.

Also leading to less waste and tighter controls has been improved tracking and management of VOC-containing materials, coupled with employee training. We also have asked our paint suppliers to formulate paints with lower VOCs and no HAPs to further reduce emissions.

VOC EMISSIONS WORLDWIDE (in tons)



HAP EMISSIONS WORLDWIDE (in tons)







## EMPLOYEE SAFETY

### ICON for Safety

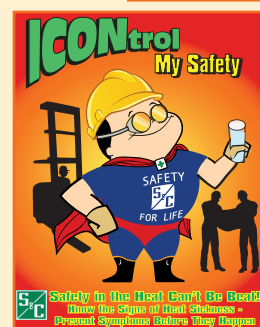
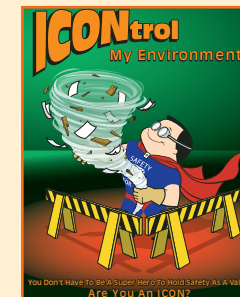
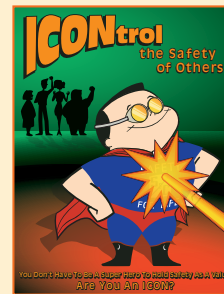
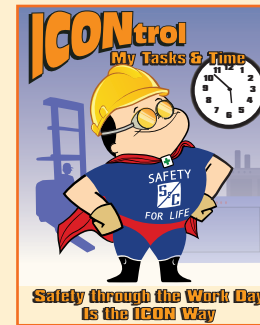
S&C does not view maintaining a safe environment as something that is limited to improving air quality or reducing landfill waste. While we view those efforts as being very important, we also see the safety and well-being of our team members as being equally vital.

In 2014, S&C applied ergonomics to address various safety issues on the manufacturing facility floor. One involved building a lift so an assembly team member didn't have to sit on the ground or in a small chair, or even kneel, while doing the assembly. Separately, we installed faster, lighter weight grinders that reduce team member shoulder stress while grinding parts.

We also designed a new cart with an extra set of wheels so larger materials can now glide with less stress around corners and with the ease of pushing a baby buggy. A motorized version is now being produced to make it even simpler to move large objects around the manufacturing facility.

Also during the year, S&C expanded its **ICON for Safety Program** beyond its Chicago and Toronto facilities to our other operations globally, including in Brazil, Mexico, and China. ICON for Safety's central goal is to promote personal responsibility for staying safe at work by putting the emphasis on team members taking control of their own behavior, environment, equipment, and the safety of others.

Launched in 2006, the ICON program has helped S&C to drive down workplace injuries through regular safety meetings with all departments. These efforts help remind team members of important things they should know and remember to stay safe, both while on the job and in their private lives.





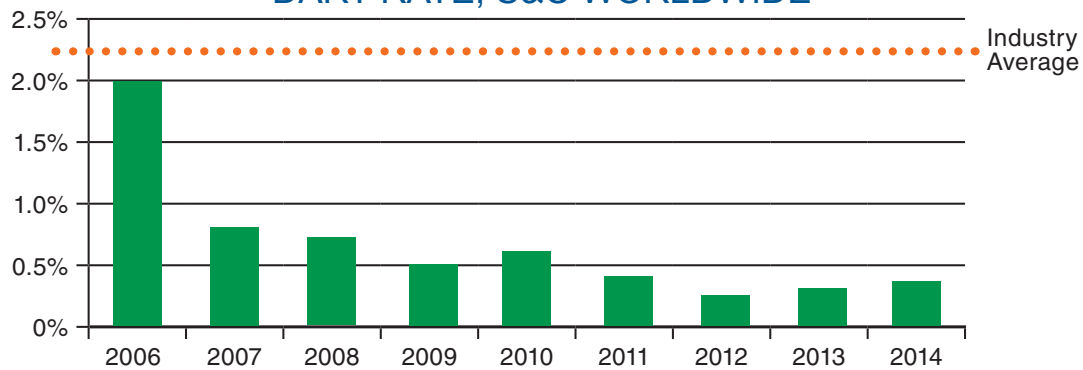


## DART and Lost Time Rates

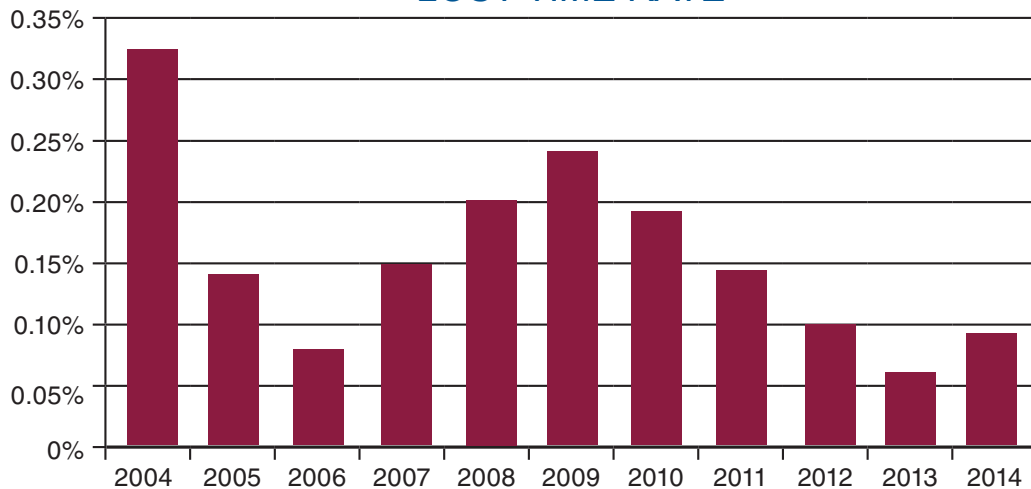
S&C strives to achieve zero injuries at all of its facilities, as described through the **Days Away, Restricted, or Transferred** (DART) rate. “Days Away” are counted when a workplace injury results in a team member being away from his or her regular job, regardless of whether it is “Lost Time” or the employee had to perform other duties because of restrictions.

During 2014, S&C saw a slight uptick in its global DART rate, to 0.34 percent from 0.24 percent a year earlier. Though a slight increase, the rate was still well below the manufacturing industry average of 2.2 percent. The slight increase in lost-time injuries also helped drive up the Lost Time rate slightly, to 0.09 percent in 2014 from 0.07 percent the previous year, again still well below the manufacturing industry average, which was 1.2 percent in 2014.

### DART RATE, S&C WORLDWIDE



### LOST TIME RATE





# INTERNATIONAL ACTIVITIES

Much of S&C's operations center on its manufacturing and engineering activities in Chicago. But we also have manufacturing, engineering, and assembly operations in other parts of the world. Those locations also share our core principles on sustainability. In fact, they're just as mindful of the need to protect both the environment and team member health, and they, too, were active in 2014 in working to achieve their own sustainability goals.

## Asia

In 2014, our Suzhou manufacturing facility in Eastern China began a waste-reduction initiative designed to reduce cardboard waste. Traditionally, vendors provide their components in cardboard boxes, which would then go into a waste-reclamation system. Now, seven key vendors instead are using reusable plastic recycle bins to pack their components for delivery to the facility. We then return the bins empty to the vendor to accommodate subsequent ongoing component deliveries. The initiative not only reduces cardboard waste, but it also eliminates the need and time to open cardboard boxes.

The initiative's goal is to cut in half the amount of cardboard waste used in product packaging. While it's too soon to say how much waste the program has reduced, the weight of the facility's recycled cardboard waste in 2014 totaled **27% less than what we had initially projected it would be. That equates to 13.5 fewer tons of recycled cardboard waste.** To put that into perspective, that's the same weight as Big Ben, the giant bell in Elizabeth Tower in London.



*S&C's manufacturing facility in Suzhou, China.*



*Use of plastic bins is helping S&C's manufacturing facility in China to remove tons of cardboard waste.*



## Safer Paint

Last year, the Suzhou facility also changed its fuse tube printing process by switching to use of waterborne baking enamel. The result was a reduction in the amount of volatile organic compounds (VOCs) used in the printing process and the eliminated use of hazardous materials.



*S&C's Canadian company's headquarters in Toronto.*

## Canada

Our Canadian company's sustainability efforts in 2014 focused on power and waste reduction, as well as on improvement in team member safety.

During the year, our Toronto campus replaced a 400-watt high-intensity discharge metal halide lighting system with T8 fluorescent lighting inside one of its buildings (Building 5). **The switch resulted in a 73.5-kW demand reduction and a 352.1-MWh energy reduction.**



*Improved lighting reduced energy consumption for S&C's facility in Toronto.*

As part of an exterior lighting project, the facility replaced high-intensity discharge metal halide lights and incandescent lights with LED lighting on the perimeter of the campus' various buildings. **The switch resulted in a 9.3-MWh energy reduction.**

Besides the lighting improvements, the Toronto facility installed variable-frequency drives on circulation pumps for the immersion tank line of its powder-paint finishing system. **The result was a 24.5-kW demand reduction and a 187-MWh energy reduction.**

In terms of waste reduction, a review of the facility's coolant-recycling process during the year resulted in a **64% reduction in coolant sent out for disposal**. Because the Toronto facility now uses recycled coolant, it requires less-frequent changing because copper in the solution acts as a biocide that extends the life of used/recycled coolant.

For the whole year, the Toronto facility **diverted 100% of its waste from landfills. In total, it recycled 85.5 metric tons of waste and saved 110.8 cubic meters of landfill space**, or about the same volume that two 40-foot intermodal shipping containers can hold.

## Europe, Middle East, and Africa (EMEA)

S&C Electric Europe Limited, our EMEA company based in Swansea, Wales, in 2014 received certification under the Certified Emissions Measurement and Reduction Scheme (CEMARS), which enables companies to measure their greenhouse gas emissions, establish plans to reduce them, and have both steps independently certified. The unit's goal is to reduce carbon emissions by 10% by 2016, including those generated by business travel. Helping toward that goal is increased use of video conferencing for meetings.



*S&C's EMEA headquarters in Swansea, Wales.*

The EMEA business unit also is helping to build sustainability in the region through various projects. Largest among them was 6-MW/10-MWh Smarter Network Storage project in Leighton Buzzard, which will assess the role of energy storage in cost-effectively supporting the United Kingdom's Carbon Plan and will save more than £6 million (\$9.4 million) on traditional network-reinforcement methods. S&C Electric Europe is the lead supplier to the £18.7 million (\$29.2 million) project.

The EMEA business unit continues to operate a safe work environment, with no team member lost time caused by an accident since 2008.

## South America

S&C, which has operated in Brazil for more than 50 years, in March 2014 moved into a new assembly plant in São José dos Pinhais. The new 10,000-square-meter (107,640-square-foot) facility is twice the size of our previous facility in Brazil.

Considerable clean-up was done during the transition to the new facility that resulted in the disposal of 50,425 kg (111,168 lbs.) of waste, up 207% from 16,524 kg (36,249 lbs.) a year earlier. Included in the 2014 waste were 27,465 kg (60,550 lbs.) of wood and 11,010 kg (24,273 lbs.) of scrap metal. **About 85% to 90% of that waste was recycled.** Separate bins outside the new facility now hold metal, plastic, paper, and cardboard for recycling by a contracted hauler.



*S&C's South American business unit's headquarters in São José dos Pinhais, Brazil.*

Connect with us:

