

HEALTH  
SAFETY  
SECURITY  
ENVIRONMENT

Brewer Science HSSE Annual Report • 2011



30  
YEARS



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# *Message from the President*

For thirty years, our corporate vision, Of the People, For the Customer, By the Technology, has directed our business practices at Brewer Science. Our Health, Safety, Security, and Environmental (HSSE) management systems have fulfilled this vision by providing leading programs to sustain the environment in which our company operates. Our mission to continuously improve our global HSSE systems to the benefit of our employees and customers substantiates our commitment and adds unexpected value throughout the world. We drive improvement of our HSSE systems through implementation of the ISO® 14001 and OHSAS 18001 standards, guidance by the ISO® 27002 standard, and vigilant communication with key customers through personal contacts and semiconductor industry associations.

Brewer Science has been externally reporting environmental, safety, and health performance on a yearly basis since 2006. We provide this report to our stakeholders to better communicate the continued importance we place on green technology and its value to our company, the environment, and the community.

Brewer Science is proud of the results our HSSE visions and efforts have had on our internal and external communities. 2010 was another premier year for driving change with our aggressive goals and objectives. We worked over 1.5 million hours without a lost-time injury, implemented heightened security processes, and continued to improve our employee wellness programs. These achievements are testaments that the global safety, security, and wellness policies we provide educate our employees and improve their well-being. Internal controls help us maintain only the essential levels of resources used. Over the past eight years, our recycling efforts have diverted over 530 tons of waste from landfills. Partnership collections have helped the community properly dispose of over 300 tons of waste. We also continue emergency response drills with our local fire and emergency management departments.

We continually seek ways to improve and always welcome your feedback. It is our sincere desire that these efforts will have a positive impact on the overall health, safety, security, and environment of the global communities that we influence.

Dr. Terry Brewer

President and Founder, Brewer Science, Inc.

## *Why HSSE?*

Brewer Science recognizes its responsibility to conserve natural resources while providing safe, secure, and environmentally responsible solutions for customers throughout the world. For this reason, Health, Safety, Security, and Environmental (HSSE) management systems based on the requirements of the ISO® 14001, OHSAS 18001, and ISO® 27002 standards are maintained. A global HSSE Team implements and maintains systems that support the company's HSSE policy and goals. Internal Safety, Security, and Environmental Departments participate with and assist the HSSE Team by educating employees and the local community about improved waste management and HSSE practices.

## *HSSE Policy*

Brewer Science has established and is committed to maintaining health, safety, security, and environmental management systems with the overall objective of preventing pollution of the environment and providing a healthy, safe, and secure workplace. Suppliers, contractors, and customers are encouraged to follow ISO® 14001, OHSAS 18001, and ISO® 27002 standards. These systems will drive continuous improvement through planning, risk assessments & monitoring, corrective action, and management review. Brewer Science will comply with all relevant international, federal, state, and local regulations, and other requirements wherever we operate.

# *HSSE Performance Information*

All environmental, health, and safety aspects of Brewer Science® processes and products are identified. Objectives and targets that minimize the company's negative impact on these systems are then developed. Management approves the objectives, while the HSSE Team manages the systems to ensure all goals are reached effectively and on time.

## **OPERATIONAL OBJECTIVES**

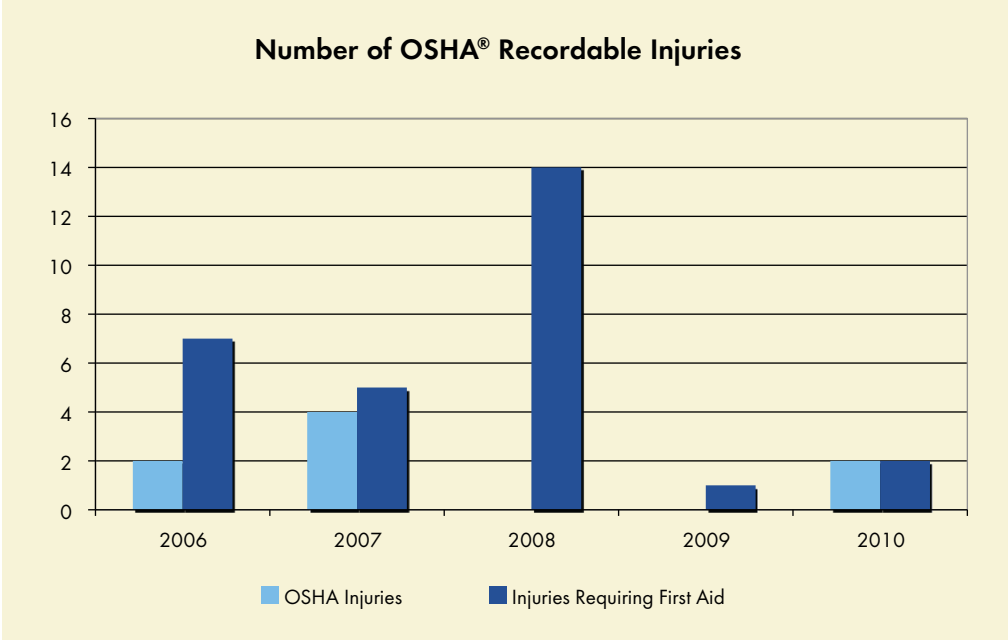
The following specific objectives have been chosen to minimize environmental, health, security, and safety impacts:

- Expand security efforts to include international offices by August 2011
- Introduce improved security software for expanded capabilities by December 2011
- Increase job safety analysis in Manufacturing by April 2011
- Implement multiyear Green Program through December 2015

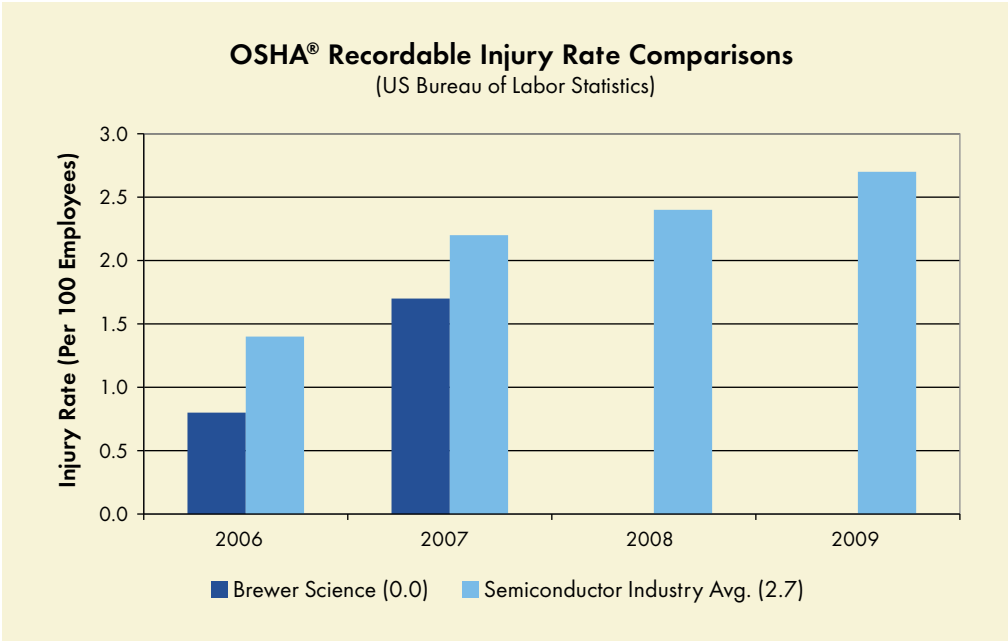
## **WELLNESS**

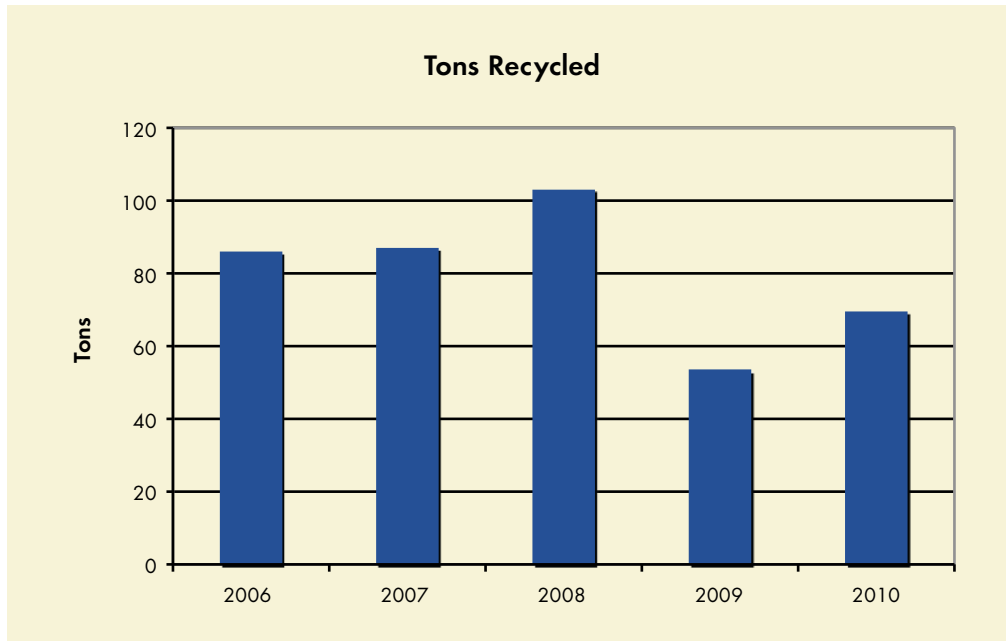
Healthy employees must be at the helm to carry out the Brewer Science® company vision, Of the People, For the Customer, By the Technology. Several wellness programs were provided for employees during 2010.

- Annual wellness fair
- Formal wellness program
- On-site yoga
- On-site chair massage
- Health risk assessments
- On-site flu shots
- Vision reimbursements
- Wellness reimbursement
- Employee assistance program
- "Lunch and Learn" wellness sessions
- Wellness newsletters
- On-site education by medical service providers on medical plan optimization and navigating the provider's website
- For financial wellness, quarterly education sessions on retirement planning

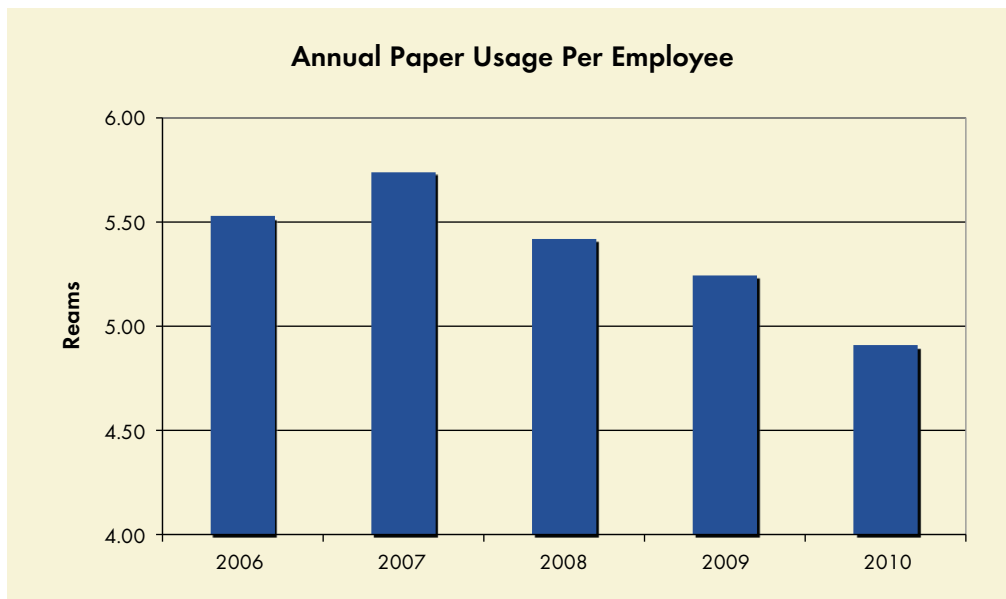


Brewer Science experienced only two minor first aid injuries in 2010. The Brewer Science safety record continues to exceed the semiconductor industry average by being over 1,500,000 hours without a lost-time injury.

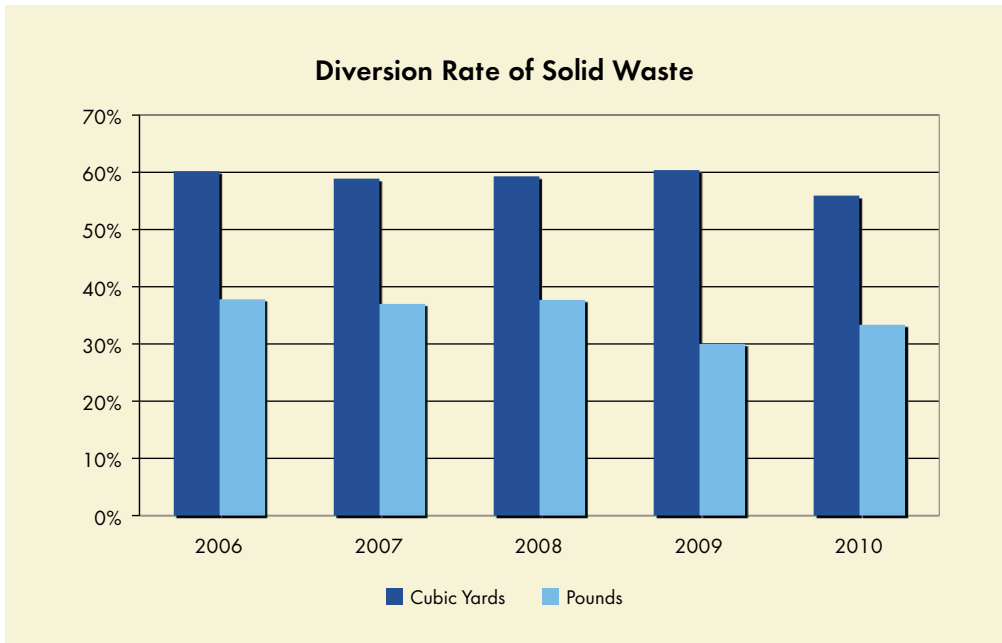




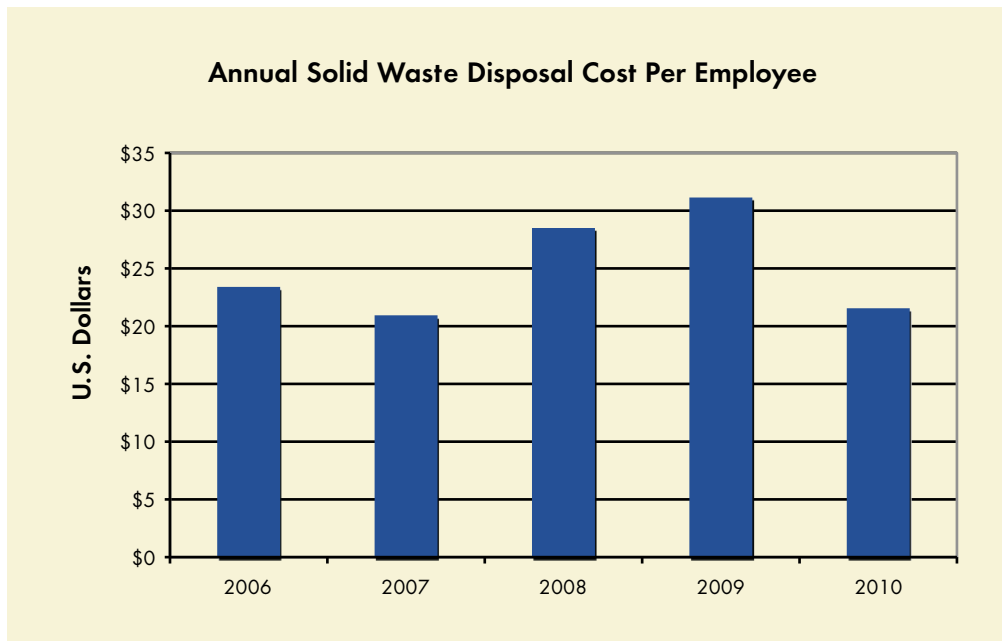
Brewer Science has recycled over 530 tons since its formal recycling program was initiated in 2002. Materials included in these numbers are all types of paper, plastic bags, shrink-wrap, bottles, and containers. The proceeds from recycling aluminum cans, cell phones, and ink-jet cartridges are donated to local non-profit organizations. Batteries, steel drums, and other metals are also recycled. Brewer Science continually looks for ways to utilize recyclable materials.



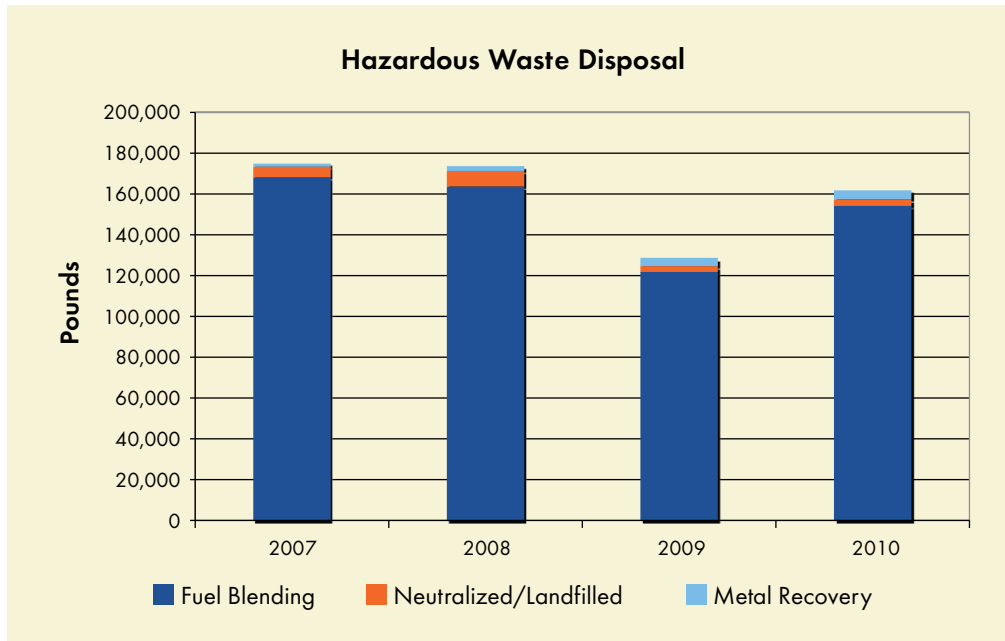
When possible, employees utilize electronic images rather than printing paper copies to reduce paper consumption.



Brewer Science sustained the percentage of total solid waste diverted from landfills.

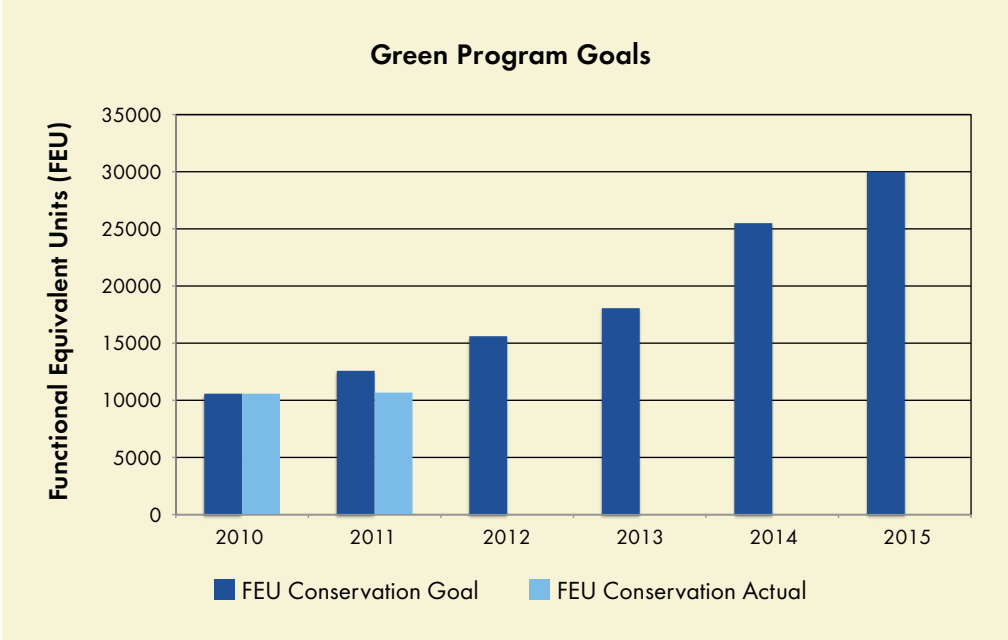


Solid waste disposal costs decreased as recycled products increased.

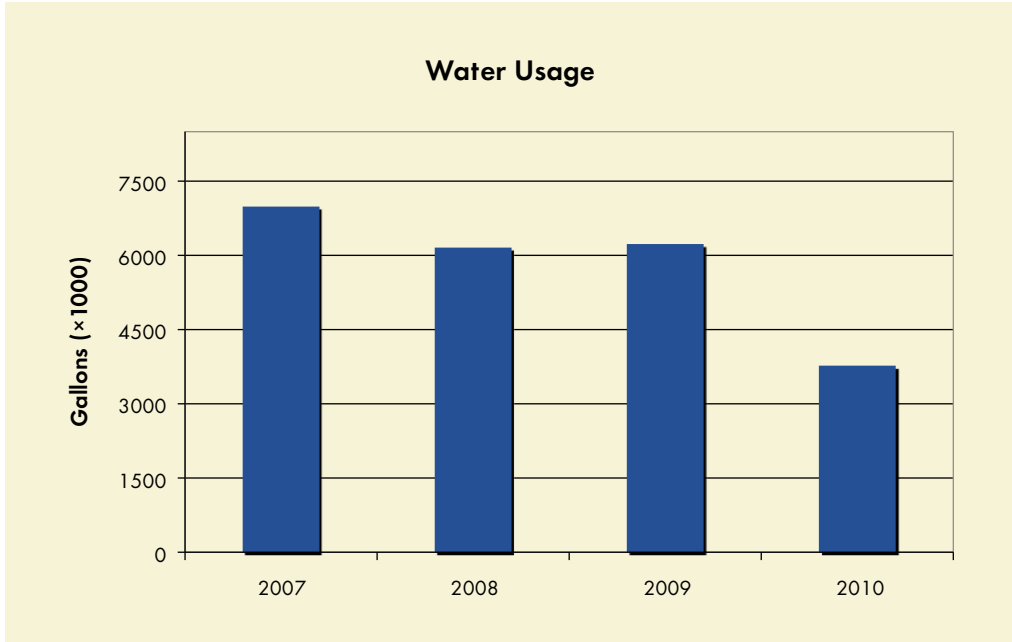


Fuel blending involves processing hazardous waste into fuels derived from liquid and solid waste, which are used as a secondary fuel source to replace coal and natural gas in cement kilns. This method is safe and effective for recovering the energy value of the waste and helps conserve our planet's finite natural resources.

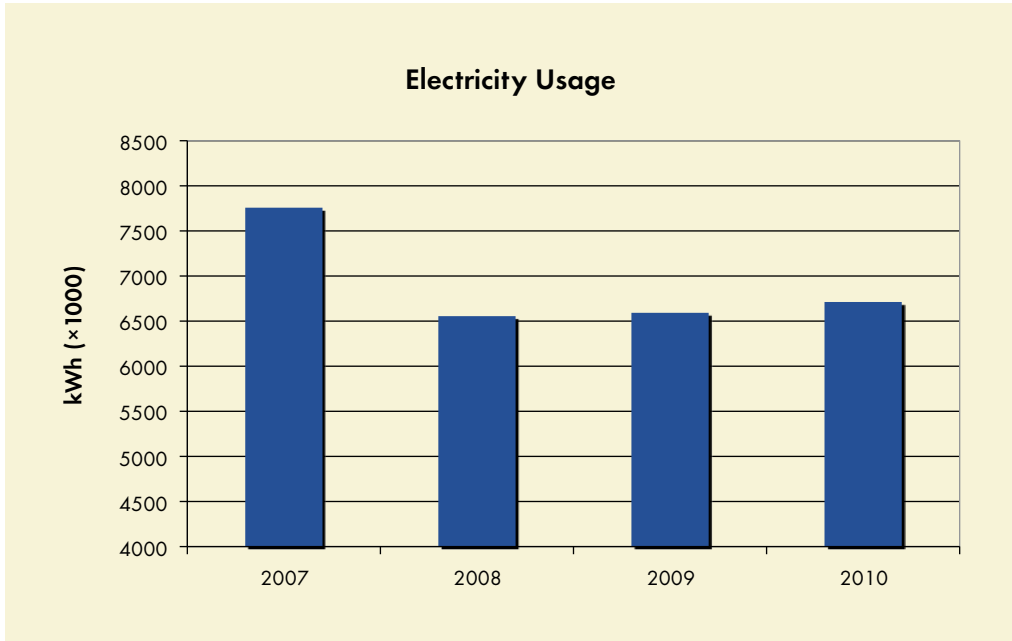
Metal drums are processed as they pass through the Container Decontamination Unit, an oven fueled by natural gas with temperatures above 1500 °F. The high temperatures destroy the chemical residues, which produce ash. This ash is tested and blended on site into an alternative fuel source for cement kilns. Decontaminated drums are then crushed and sent to steel mills for recycling.



The goal of this project, which began in 2010 and ends in 2015, is to reduce water, electricity, and natural gas use each by 10,000 functional equivalent units (FEU), for a total of 30,000. The 30,000 FEUs are equal to 700,000 gallons per year, 25,000 kWh per year, and 10,000 therms per year by the end of 2015. Based on 250 employees, 2800 gallons of water, 1000 kWh of electricity, and 40 therms of natural gas would be conserved per employee per year by 2015. This goal will be achieved through the installation of more efficient water and electrical fixtures and insulation projects.

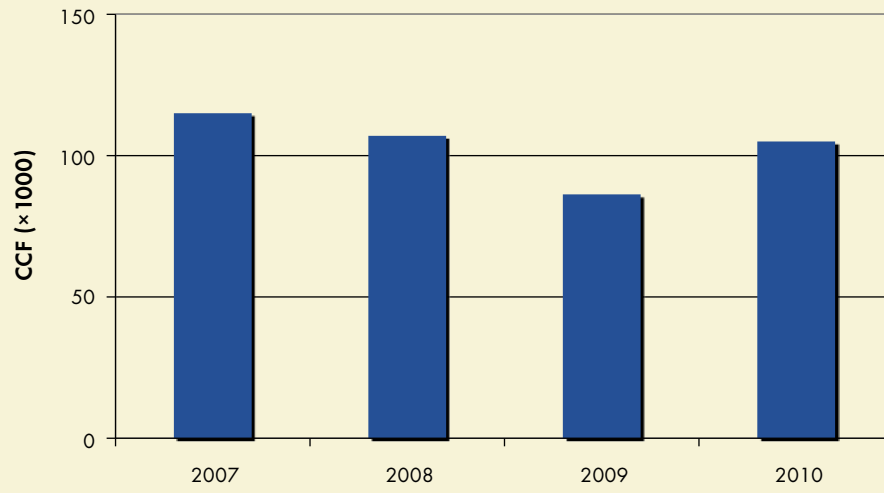


Brewer Science continuously looks for ways to improve utility usage.

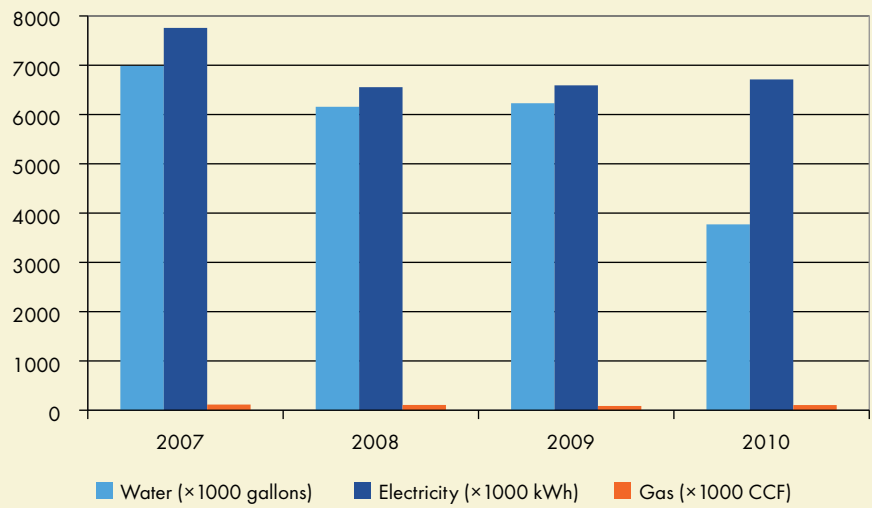


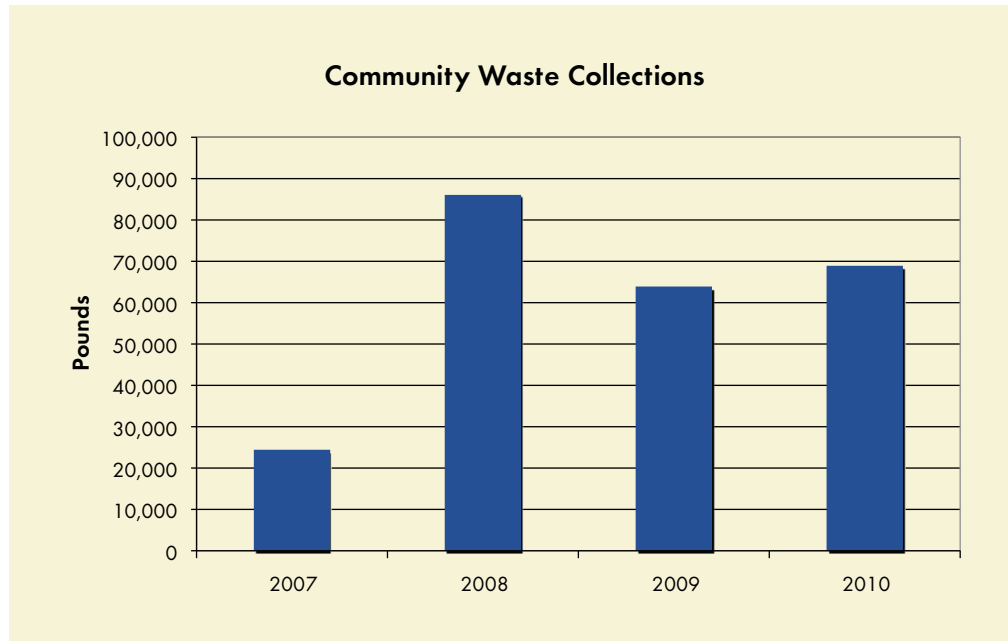
Extreme external temperatures affect electricity use.

### Gas Usage



### Global Utilities Usage





Brewer Science continues its partnership with the community by helping stakeholders properly dispose of waste and adopting the surrounding streets in our industrial park. By working with the City of Rolla, the Ozark Rivers Solid Waste Management District, the Missouri Department of Natural Resources, Meramec Regional Planning Commission, and the Phelps County Commission, Brewer Science provides area residents with community collections that have enabled Phelps County to properly dispose of almost 630,000 pounds of waste over the past 9 years. This partnership contracted disposal companies and provided volunteers who collected appliances, electronics, and tires from area residents which would have otherwise been disposed of in a landfill. Brewer Science continues to support these efforts.

# *Training*

All personnel are required to be competent when they perform tasks that may impact HSSE issues in the workplace. Competence is defined in terms of appropriate education, training, and/or experience. Training requirements are based upon the specific task requirements of individual job descriptions and/or homogeneous exposure groups as defined in our Hazard Assessment Procedure. Training plans are updated and documented at least annually as part of the HSSE objectives planning process, and are summarized in the Corporate Training Matrix. Human Resources maintains these records according to the Training Process.

Below are some of the required HSSE training courses:

- Hazard Communication Annual Refresher
- Hazard Waste Annual Refresher
- Lockout/Tagout Authorization
- Workplace Violence Prevention
- Fire Extinguisher Training
- Flammable and Combustible Liquids Training
- Influencing Security-Compliant Behaviors
- Emergency Response
- Safety Review & Lab Chemical Hygiene Plan
- Hot Work Permits
- Respirator Training
- Electrical Safety
- Gas Cylinder Handling
- Compressed Gas
- Ergonomics
- Manual Handling
- Elevated Work

# *Awards and Recognition*

Brewer Science has received numerous awards in recognition of its voluntary efforts and genuine concern for the environment.

## **LOCAL**

- 2000, 2002, 2003 – Ozark Rivers Solid Waste Management District: Outstanding Contribution in Solid Waste Management
- 2004 – A Community Organization to Restore Nature (ACORN): Appreciation for Beautification

## **STATE**

- 2002 – Missouri Waste Control Coalition: Outstanding Achievement Award in the Business category
- 2004 – Missouri Recycling Association: Outstanding Business Recycling/Waste Reduction Program

## **NATIONAL**

- 2004 – Export Achievement Award: U.S. Department of Commerce
- 2005 – National Recycling Coalition: Fred Schmitt Award for Outstanding Corporate Leadership
- 2006 – American Forest & Paper Association®: Business Leadership and Recycling Award
- 2010 – National Safety Council: Million Work Hours Award
- 2010 – National Safety Council: Significant Improvement Award
- 2010 – National Safety Council: Milestone Award
- 2010 – Southwest Area Manufacturers Association: Safety Excellence Award





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