Welcome to our 2020 Corporate Sustainability Report.

In previous years, we have called this report the health, safety, security, and environment (HSSE) report. This year, we have decided to continue to build off this report and to further expand on it to remain transparent with our customer, partners, and employees. Inside this report, you will find the same sustainability information you always have, as well as more information about why we are a company of the people, by the technology, for the customer.
COMPANY OVERVIEW

Our Company
Brewer Science is a global leader in developing and manufacturing next-generation materials and processes that foster the technology needed for tomorrow. Since 1981, we’ve expanded our technology portfolio within advanced lithography, advanced packaging, and printed electronics to enable cutting-edge microdevices and unique monitoring systems. Our relationship-focused approach provides outcomes that facilitate and deliver critical information.

Our Culture
The employees of Brewer Science are committed to an environment that fosters innovation, diversity, and professional development. Our customers’ long-term success is important to us, and we pride ourselves in exceeding their expectations with our personalized care and commitment.

Our Brand
Our brand personality is directly linked to our core values. The intangible elements that our hawk logo symbolizes—freedom, beauty, and harmony—make the hawk a visual representation of Brewer Science. When our customers think of Brewer Science, they think of our trustworthiness and commitment to our business. They know that we are working for them tirelessly and leading the way into the next generation. We are valued for our diversity and our belief that we are more than the sum of our parts. As a team, we are all committed to being leaders in our industry and for returning more to the world than we take.

A company of the people, by the technology, for the customer.

Our Locations
Brewer Science is a global company with colleagues all over the world. We are currently headquartered in Rolla, Missouri, but we offer support all throughout the world.

United States
Rolla, MO
Vichy, MO
Springfield, MO

England
France

Japan
Republic of Korea
People’s Republic of China
Hong Kong
Taiwan
For more than 35 years, our corporate vision, of the people, by the technology, for the customer, has directed our business practices at Brewer Science. Our integrated quality, environmental, and safety management system has fulfilled this vision by practicing programs that ensure a world-class safe, healthy workplace environment for our employees, sustain and improve the environment in which our company operates, and deliver timely high-quality, industry-leading materials that enable our customers to succeed. Our mission is to continuously evolve our global footprint to the benefit of our employees, community, and customers, adding unexpected value throughout the world.

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 safety, employee wellness, environmental and social responsibility and the value they bring to our employees, and our community.

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. Additional information can also be obtained from our website on our Quality, Environmental, and Safety page or our Going Green page.

Dr. Terry Brewer
President and Founder, Brewer Science, Inc.
Brewer Science is proud of the results our efforts have had on our internal and external communities. Key outcomes of our improvement programs in 2019 include:

- Received the GreenCircle, LLC “Zero Waste to Landfill” Certification for 4 years straight
- Over 70% of our generated hazardous waste has been designated for re-use applications
- Utilization of geothermal technology for use at the Vichy, MO manufacturing facility
- Partnered community collection of tires, household appliances and electronics, diverting over 51,000 lbs. of residential material from landfills
- Continued effective use of 5S, Gemba walk, and Scrum continuous improvement programs throughout our facilities
- Wellness program, including fitness programs, wellness seminars, an on-site exercise room, and the promotion of healthy foods available in the workplace
- Utilization of the Community Service Leave Policy, enabling employees to serve the community during work hours
- Continue to be below the average OSHA® recordable injury rate for our industry
- 59 tons of cardboard, paper, batteries, plastics, and bulbs recycled, diverting these items from landfills
- Yearly Incident Command and Emergency Response training and exercises for employees
Local

2012 - Ozark Rivers Solid Waste Management District: Dedication to the environment in the Ozarks Rivers Region
2012 - Award of Congratulations from SAFE Rolla for recognizing the importance of protecting the health of workers and our community.
2014 - Safety Council of the Ozarks, Les Reynolds Million Hour Award

State

2014 - Safety Excellence Award from the Missouri Association of Manufacturers
2015, 2017, 2018, 2019 - “Top Workplace” by the St. Louis Post-Dispatch
2016 - “Sustainability Leadership Award” from the Missouri Association of Manufacturers
2018 - Outstanding Exporter for the State of Missouri
2018 - Breastfeeding Friendly Workplace Award from the State of Missouri

National

2011-2016 - American Heart Association: Gold Fit Friendly Award
2014, 2015, 2016 - Minority Engineer magazine’s list of Top 50 Employers in the United States
2016-2019 - Zero Waste to Landfill Certification
2017 - FLEXI Award for Technology Leadership in Education Award
2018 - Brewer Science recognized as Outstanding Exporter for the State of Missouri by NASBITE International
2018 - Front End Perfect Quality Platinum Award from ON Semiconductor
2019 - Preferred Quality Supplier Award by Intel
2019 - ON Semiconductor Quality Award
Brewer Science recognizes its responsibility to conserve natural resources while providing safe, secure, and environmentally responsible solutions for customers throughout the world.

A global HSSE Team implements and maintains systems that support the company’s IMS 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.

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.
INTEGRATED MANAGEMENT SYSTEM (IMS) POLICY

Brewer Science has established, and is committed to being a leader in, quality, environmental, and safety management systems with a focus on exceeding customer expectations, being conscientious stewards of the environment, and providing a healthy, safe, and secure workplace.

These systems will drive continuous improvement for the benefit of our customer, people, and technology throughout all areas of our company through planning, risk assessment, monitoring, corrective action, and management review.

Each employee is charged with the responsibility to deliver exceptional customer service wherever we operate while complying with all relevant international, federal, state, and local regulations, and other requirements, for the fulfillment of all interested parties.

OPERATIONAL OBJECTIVES

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

- Receive the GreenCircle Certified, LLC, “Zero Waste to Landfill” certification
- Maintain OSHA® Recordable Injury Rate below industry average
- Divert 60% of Hazardous Waste to re-use applications
Brewer Science has a long history of being committed to responsible waste management.

Over 20 years ago, we began our first fuel-blending program. In 2002, the mini-bin recycling program began, further encouraging more sustainable practices not only in manufacturing, but in the office. In 2015, Brewer Science added “Big Blue,” a large trash compactor that is used to collect items normally headed to the landfill. Waste in “Big Blue” is taken to a waste-to-energy facility where the waste is combusted to produce steam and electricity. The implementation of the trash compactor in combination with Brewer Science’s recycling initiatives enabled the Rolla and Vichy facilities to achieve Zero Waste to Landfill status. To this day, Brewer Science continues to create new programs inside and outside the company to help promote sustainability.

Being Zero Waste to Landfill certified for four consecutive years represents our commitment to the responsible management of end-of-life materials and demonstrates our commitment to waste diversion practices.
WASTE DIVERSION FROM LANDFILL

314 TONS of waste diverted from landfill in 2019

- Beneficial Reuse (Alerion Project): 57.45%
- Fuel Blending (Hazardous Waste Disposal): 17.31%
- Metals Recovery: 11.45%
- Recycling: 6.32%
- Recycling, 0.04%
- Waste-to-energy: 0.02%
- Reuse: 0.41%
- Waste Treatment: 0.00%
Brewer Science has recycled over 800 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.
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.
RESOURCE CONSERVATION

**Water Usage**

- 2019: 5400 Gallons (x1000)
- 2018: 6210
- 2017: 5205
- 2016: 6372
- 2015: 6797
- 2014: 5498

**Gas Usage**

- 2019: 180 CCF (x1000)
- 2018: 149
- 2017: 142
- 2016: 179
- 2015: 165
- 2014: 191

**Electricity Usage**

- 2019
- 2018
- 2017
- 2016
- 2015
- 2014

- Electricity
- Wind Energy Credits kWh (x1000)

62% of electricity used at Brewer Science in 2019 comes from wind energy.
Brewer Science expansions and increased production have increased the overall utility usage year over year; however, our Green Program efforts continue to retrofit existing systems and ensure energy-saving options are implemented with new construction projects. Weather patterns in the summer and winter months also have a large effect on utility usage for gas and electricity.
Brewer Science experienced four recordable injuries in 2019.

The Brewer Science safety record continues to exceed the semiconductor industry average.

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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 over 910,000 pounds of waste over the past 12 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.
At Brewer Science, we believe that protecting our environment, the safety of our employees and conserving resources are essential to running a successful and mindful business. By providing an added layer of trust and transparency through the GreenCircle certification, we are able to continue offering the level of quality, sustainable materials that our customers have come to expect.

Brewer Science leads the way for our community, industry and state, receiving national and international recognition for our environmental efforts. Throughout the year, we participate and lead various recycling events and champion causes for environmental awareness. Because of our leadership in environmental efforts, we’ve been asked to sit on panels, speak at conferences, and participate in webinars for leading semiconductor companies. We are often seen as advocates with a wide reach and knowledge because of our advice given as technology leaders.

- **62% of Rolla/Vichy electricity usage offset by Renewable Energy Credit**
- **36,000 lbs. of community electronic waste collected in 2019**
- **7.5 tons of tires collected in 2019**
- **Green Circle Certified for Zero Waste to Landfill since 2016**
- **70% of hazardous waste diverted for re-use applications**
- **1.1 OSHA® Recordable Injury Rate (RIR) (Industry Rate = 1.9)**
At Brewer Science, we value our employees above all else. Our core values—Trust, Freedom, Commitment, Collaboration, Responsibility, and Excellence—help create a unique environment that fosters creativity and innovation. We’ve created a culture that promotes a healthy work/life balance, environmental stewardship, and a tradition of giving back to the community.

**Development**

At Brewer Science we strive to bring out the best in people. We provide many programs and training tools to further our employees’ careers and bring out their full potential. Employees have access to over 1300 hours of training courses for employee development, as well as over 16,000 training course enrollments.

By rolling out a new training system in 2018 called Bridge, we’ve been able to provide more series of trainings like the Emotional Intelligence Workshop and the Financial Wellness Series.

We also encourage further learning by providing employees with tuition reimbursement of 60% up to $5,000 per year.

Our learning and development team continues to work on developing new programs, including an internal mentoring plan and a leadership program for emerging leaders.
WELLNESS

The well-being of our employees is at the core of enabling Brewer Science to fulfill its company vision: a company of the people, by the technology, for the customer. Therefore we are dedicated to providing a work culture that drives and supports a healthy lifestyle and workplace.

Brewer Science wellness programs for 2019 included:

- Discounts provided to employees at various fitness centers
- On-site fitness room (treadmills, elliptical, weight machine)
- Sponsorship of teams for 5K and Mud Run
- Financial wellness education series for employees and their spouses

• 30 minutes of daily paid leave available to all employees to engage in physical activity
• Smoking cessation program
• Monetary contribution to support mental, physical, financial wellness
COMPENSATION & BENEFITS

As we experience success at every level of the organization, we know that nothing would be possible without our employees. As part of our commitment to employees, we strive to be a world-class employer by offering benefit programs that meet all their personal needs. Employees are encouraged to take an active role in managing their health and their priorities, inside and outside of the company.

Enabling our employees to intertwine their personal and professional responsibilities is part of Brewer Science’s value and is our priority. This is reflected in the following benefits:

**Community Volunteer Time:** We’ve expanded this policy to go beyond helping an organization, but also includes helping a fellow coworker, neighbor, or family member - the Brewer Science community.

**Special Paid Leave:** Brewer Science offers up to 30 days of paid leave for employees that may need off for health conditions, childbirth or adoption, or military leave.

**Special Dependents Leave:** This leave is provided to employees who need to support a dependent to ensure he or she receives critical care required to prolong his or her life or to live a healthier life. Special Dependents Leave is also provided to employees whose partners have given birth to a child or a child has been placed with the employee through adoption.

Benefits are an integral part of the compensation package at Brewer Science, designed to help our employees be healthy, prepare for the future, and achieve a well-rounded sense of well-being. Employees are encouraged to take an active role in managing their health and their priorities, inside and outside of the company.
Brewer Science is deeply committed to making our community a better place to live and work. We continually support charities, arts, academics, and more, not only through monetary gifts, but also through sharing our time and resources.

For the arts, 2 major events Brewer Science is a part of are the Pure Enjoyment Art Exhibit and the Jacques Thibaud Trio (JTT) Concert. Since 2002, Brewer Science, the Springfield Regional Arts Council, and Arts Rolla have hosted an art exhibit in Springfield, Missouri featuring original artwork and photography from all over the Midwest. The JTT Concert consists of a world-renowned group from Berlin, Germany that is invited to Rolla to perform for the public, as well as a private concert for employees and their families. We believe the creativity in art and the creativity in scientific and technological innovations are closely related.

Supporting science, technology, engineering, art, and math (STEAM) programs and raising STEAM awareness are of the utmost importance to us at Brewer Science. Not only do we open our doors to students and graduates each year with our intern/co-op program, but we also go out into the community to raise awareness and money for local schools.

Each year, Brewer Science employees travel to neighboring elementary schools to talk about careers in STEAM and do STEAM-related activities with the kids. In 2019, Brewer Science was able to visit or be visited by over 900 students ranging from kindergarten to college.