

Encouraging Environmental Excellence – Silver Level Award

Sherwin-Williams Breen Technology Center - Cleveland

In 2014, Sherwin-Williams Breen Technology Center received an Ohio EPA Encouraging Environmental Excellence (E3) Silver Level Award. The silver level recognizes businesses and others that have a good environmental compliance record and have completed environmental stewardship activities. The silver level is open to any business, industry, trade association, professional organization or local government of Ohio.

The Breen Technology Center, located in downtown Cleveland, is responsible for developing innovative processes and products for the Sherwin Williams architectural brands. The technology center is responsible for product development, coatings research, color technology and process engineering.

The Technology Center has approximately 320 research professions, and is divided into three operating departments: technology, product development/commercialization and research and development services. The Technology Group conducts long-term research aimed at producing product, process platforms and baseline research from which specific products are developed. The Product Development Group develops specific products based on these platforms. The Research and Development Group provides technical support.

Environmental Impact

Trash to landfill was reduced with the development of an employee driven Green Team. The employees worked with the Facility Team, separating trash into two streams (wet trash and recyclable trash). The Facility Team set up a large compactor for recycle materials, and another compactor for wet mixed trash. New trash bins were installed in offices for recycle items with small caddies attached for mixed trash. Recycle containers were labeled as a visual aid for employees. Common areas in the building were equipped with two types of containers for the two waste streams. The cleaning crew was trained on the proper handling of the trash to assure that the trash was put into the correct compactor. The Facility Director works with the trash company on the amount of trash removed from the site. The recycle compactor is monitored by the shipping and receiving team to assure that only recyclable items go into the Green Compactor. In 2012, the site reduced trash to landfill from a high of 400,000 pounds at its peak, to 126,000 pounds, with a 2016 goal of 100,000 pounds.

In 2012, the site reused and recycled 843,000 pounds of materials. The site sent more than 515,000 pounds of paint off site to be reused, saving approximately \$97,800. The site partnered with the City of Cleveland Veterans, and donated 71,000 pounds of drywall (approximately 3,200 4 X 4 sheets) for the veterans to use in housing rehabilitation in the city of Cleveland. The facility was able to reuse 53,000 pounds of pallets by selling some to a third party and also sending others



Sherwin-Williams Breen Technology Center is recognized for:

- Reducing their environmental footprint (using a 2007 baseline) by more than one million pounds and recycled/reused materials in excess of 2.6 million pounds.
- Increasing their recycling rate from 9.5 percent in 2007, to 87 percent in 2012.
- Reducing overall energy use in the last five years with new and creative initiatives, such as improving electrical efficiency and saving 2.3 million kWh in five years, resulting in a cash savings of \$262,251.

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back to Sherwin-Williams's plants for reuse. The Green Compactor collected 142,000 pounds of materials that normally would have gone into a landfill, including plastic, cardboard, paper and metal.

Resource Conservation

Energy reduction projects and equipment upgrades are an ongoing effort, driven by site-wide initiatives and company-wide goals to reduce the environmental footprint. The lab facility requires eight air changes per hour as specified by OSHA, and the lab currently has 12 air changes per hour, as per the Sherwin-Williams standard. The main lab is 100,000 square feet. The facility works with the corporate engineering department on exploring options that will help the site upgrade and install high efficient systems and equipment to reduce energy costs.

Continuous Improvement

Sherwin-Williams aligns goals that are geared toward "Team Speed, Simplicity and Partnership." Each site has specific goals related to these areas. One of the specific ideas to help reduce solid waste reduction at the Breen Technology Center was to eliminate 4 X 4 drywall boards, and install three large mounted vacuum plates that would allow the drywall paper to be mounted on the boards and allow testing of paints. For every sheet of drywall replaced with this system, it eliminates 22 pounds of gypsum from going into the landfill. Another green initiative to help reduce waste was to separate generic paint, and send the paint back to their Chicago plant for reuse in future projects. Mixed paint is sent to an outside vendor that ships the paint to other countries to use as a primer. These initiatives kept more than 515,000 pounds of paint out of the landfill in 2012 and saved \$97,800.

The facility also replaced their 26-year old 500-ton chiller with a Turbo Core Compressor system. This replacement was both an energy reduction effort, reducing the consumption in comparison to the centrifugal chiller, and reuse initiative, allowing the reuse of the condenser and tubes from the centrifugal chiller.

Environmental Management System

The environmental management system used internally at the Sherwin-Williams is Ecomet. This system tracks all sites, and results are reported annually to shareholders. Facility initiatives reduce materials sent to a landfill, and thus, increase the recycle rate and reduce electrical and gas consumption.

For more information

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For more information about Ohio EPA's Encouraging Environmental Excellence program, contact the Office of Compliance Assistance and Pollution Prevention (OCAPP) at 800-329-7518, or visit epa.ohio.gov/ocapp/ohioe3.aspx.