Encouraging Environmental Excellence Achievement Level Recognition

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The Ohio EPA Encouraging Environmental Excellence Program targets those who reduce waste, improve efficiency and work to continuously improve as an environmental steward. The program has a three-level approach to provide recognition to Ohio businesses and other organizations completing environmentally beneficial activities. Higher levels of recognition are for those who exceed regulatory requirements or commit to future environmental stewardship efforts. The Achievement Level recognizes any applicants completing environmentally beneficial activities. Any business, trade association, professional organization or local government in Ohio may apply. Achievement Level participants must have demonstrated significant progress in one of the following main criteria: Impact to the Environment (Toxics and/or Waste Reduction); and/or Resource Conservation. Achievement Level participants must also demonstrate some level of progress in at least six additional environmental stewardship criteria and indicate they are in compliance with environmental laws and regulations.

Ohio EPA is recognizing three organizations that successfully met the criteria for the Achievement Level of the Encouraging Environmental Excellence Program. Below is a summary of their efforts.

The Brewer-Garrett Company – Middleburg Heights: Brewer-Garrett has been providing engineering, design, installation, and service to educational, governmental, commercial and industrial customers since it was incorporated in Ohio in 1959. Their corporate Headquarters are located in Middleburg Heights, Ohio, with a second location in Massillon with 188 employees in Ohio. The company provides a wide array of services for multiple business sectors including energy, lighting, electrical, mechanical system installation, sheet metal, piping, plumbing, cabling and communications.

In 2012, Brewer-Garrett remodeled and renovated its main office in Middleburg Heights. The remodel focused on creating a more energy efficient and sustainable facility. The renovation replaced and retrofitted the lighting systems throughout the facility, resulting in approximately 27% in energy reduction. Because lighting consumes over 40% of all electricity used in a commercial office facility, addressing efficiency in these systems resulted in significant energy reductions and reduced maintenance needs. This improvement in lighting quality also made the space safer and more productive. Brewer-Garrett utilized long life products to reduce waste, and products containing very low amounts of mercury. Brewer-Garrett also utilized a lighting control system that ties into the main building automation system, which allows for scheduling as well as occupancy and daylight control.

The mechanical and plumbing systems throughout the facility were also significantly updated, greatly improving the comfort and operation of the facility while saving up to 15% in energy for heating and cooling. These mechanical systems are controlled by a new state-of-the-art building automation system. This allows for the building systems to be set-back during unoccupied times saving wear on the equipment and a considerable amount of energy. As part of the renovation, Brewer-Garrett installed a new high-efficiency 40-ton Trane roof top unit that featured variable frequency drives and an

economizer. This variable-air-volume unit replaced the previous/demoed 20-ton constant-volume unit to help conserve energy. Variable Air Volume (VAV) boxes were installed for virtually every space in the new facility with each VAV box set to maintain an unoccupied heating temperature of 65 degrees F and an unoccupied cooling temperature of 80 degrees Fahrenheit between the hours of 6:30 pm to 4:30 am. In restroom areas, the latest ultra-low flow fixtures were utilized to minimize water and sewer usage.

As part of the renovation, an existing retention pond was expanded to accommodate the increased size of the Brewer-Garrett parking areas in the back of the office building. This pond serves as a temporary holding area for storm water to minimize overwhelming the city storm water system during rain events.

In 2014, Brewer-Garrett implemented a recycling program for its main office in Middleburg Heights. After contacting two different waste management companies, it was determined that Brewer-Garrett didn't have enough recycling to warrant a recycling contract. Instead of paying someone to haul away recyclable materials they began participating in Berea City Schools' "Paper Retriever" program where the schools are paid for their own recycling efforts and coordinating the recycling efforts of local organizations.

In addition, aluminum cans and plastics from Brewer-Garrett are collected and dropped off locally to be recycled. To honor Earth Day 2015, Brewer-Garrett held an electronic waste collection day in which they had employees drop off e-waste in the sheet-metal shop. Brewer-Garrett used its own resources to transport the waste to RET3, in Cleveland, Ohio, which is a 501c3 non-profit dedicated to the environmentally friendly disposal of end-of-life electronic equipment. They have a "no-landfill" agreement and their methods are fully compliant with EPA standards. 289 pounds of electronic waste was saved from going to a landfill.

Brewer-Garrett was selected by Kent State University (KSU) to provide comprehensive improvements to the Main Campus Classrooms, Laboratories, Residence Halls, Auxiliary Buildings, and Utility Assets through House Bill 7, to achieve energy savings and reduce future utility costs by over 37%, as well as reducing greenhouse gas emissions by more than 20%. Brewer-Garrett implemented the use of an Environmental Management System (EMS) through a "Dashboard" tracking system of the campus buildings and residence halls. The Dashboard system allows users to track, measure, and compare use of electricity, steam, chilled water, and CO2 levels. The dashboard also provides green tips and recycling information.

CertainTeed Corporation Roofing Division - Milan: Founded in 1904 as General Roofing Manufacturing Company, the firm's slogan "Quality Made Certain, Satisfaction Guaranteed," quickly inspired the name CertainTeed. Today, CertainTeed is North America's leading brand of exterior and interior building products, including roofing, siding, windows, fence, decking, railing, trim, foundations, pipe, insulation, gypsum, ceilings and access covers.

A subsidiary of Saint-Gobain, the world's largest building products company, CertainTeed and its affiliates have more than 6,000 employees and more than 65 manufacturing facilities throughout the United States and Canada. In 2009 and 2010, CertainTeed, which is headquartered in Valley Forge, Pennsylvania, was named Energy Star Partner of the Year by USEPA. The group had total sales of approximately $3 billion in 2009.

The Avery plant manufactures several lines of laminated asphalt roofing shingles, including shingles that are Energy Star rated and can contribute to LEED certification and NAHB Green Building Standards. The shingles are manufactured with pre- and post-consumer recycled content, including slag, stone granules, corrugated mixed paper and sludge, which ultimately reduces landfill waste and carbon emissions. More than 90 percent of production waste is recycled and used in asphalt materials for road construction.

Over the last 4 years the CertainTeed Avery Plant has reduced its landfill waste by 26% and continues to push for more results. Two-thirds of their waste streams are recycled and the plant continually works to create zero non-recovered wastes. Recycled waste streams include: shingles, paper, plastic, metals, rubber, fiberglass, granules, and wood products. They recycle an average of 300 tons of material per year.

CertainTeed has documented upper management support of their ongoing waste reduction initiatives. They utilize employees to help drive environmental stewardship improvements at the Avery Plant. Their EHS Committee has been and continues to be instrumental to continual improvement initiatives directed toward reducing their impacts to the environment. Key employees help lead the EHS Committee by identifying opportunities for improvement, identifying solutions, and assisting with employee training.

The CertainTeed Avery plant has been ISO 14001 certified since 2010. This system is a key component to maintaining compliance with all regulatory agencies as well as continually improving their environmental performance. They also utilize World Class Management techniques that include pillars dedicated to environmental improvements. The Avery plant has designed and is testing new technology that will increase the re-use of waste granules in finished product. The plant is currently re-using 1,200 lbs. per shift and has the ability to re-use more as this technology is introduce to more areas of their production process. Natural Gas usage has been reduced by 7 % over the past 4 years due to technology improvements, improved maintenance, and the demolition of obsolete equipment. Over $60,000 in savings has resulted from these efforts.

ConAgra Foods - Troy: The ConAgra plant sits on approximately 38 acres in Miami County. The main building was built in 1949 and has undergone 4 major expansions to its current size of 303M square feet. The plant produces pizza, dough enrobed products and the Slim Jim meat snack sticks. The plant employs approximately 700 associates, running 7 days a week. The environmental impact the plant makes is a core business function that starts at the top of the organization with their corporate environmental policy that emphasizes environmental compliance, pollution prevention, continuous improvement and the use of an environmental management system (EMS).

The Troy plant's Environmental Health and Safety (EH&S) Department consists of a manager and 3 associates that assist in managing the environmental activities for the facility. This team is responsible for training activities, audits and subcommittees that examine the processes and look to implement changes in procedures to limit the impacts to and help to improve the environment, including a Green Team focused on recycling and energy use reduction, and a Drip Spotters team focused on reducing water-related waste.

The Troy facility utilizes Intelex and the Sustainable Development Reporting Tool (SDRT) as the basis for their EMS. Intelex is a third party web-based software application that tracks components of their environmental process such as permit management, completion of environmental tasks, environmental

incidents, audit findings and corrective actions. SDRT is a proprietary, web based application used to manage sustainability performance indicators that are included in ConAgra Food's EMS. Management reviews of the tasks and processes being completed and tracked assess how changing circumstances might influence the suitability, effectiveness and adequacy of the EMS.

Environmental successes achieved by the teams are communicated throughout the plant and the organization in many ways. In the facility, posters and signs are placed in display cases for the associates to see. Audio/video presentations are displayed in the break rooms, as well as town hall meetings attended by all team members. Weekly environmental calls with the ConAgra Corporate Environmental Director, other plants and facilities are held weekly to provide information, training and best practices to be reapplied at each location. Annually, ConAgra has a sustainable development contest that promotes environmental awareness and gives the best projects a cash award that goes to an environmental project in the community. The Troy facility has won the award previously and donated the $5,000 cash award to Troy. Projects from the Troy facility have been submitted annually for the last 12 years.

Resource conservation projects at the facility concentrate on landfill diversion, water use reduction and recycling. There are several projects that have been implemented recently that demonstrate a commitment to continual improvement and pollution prevention including: a glycol cooling plant that replaced the water cooling system resulting in a reduction in water use by 2M gallons per year and saved $92K per year; an aluminum can and plastic bottle recycling program resulting in 3,280 pounds of materials recycled; an animal feed program that diverts scrap dough and food waste from landfilling to use as animal feed with over 8,728,655 tons of products used as animal feed in 2014; a composting program where food waste not suitable for animal feed is utilized by a third party to be processed in composting material that is then land applied with over 370 tons of waste composted in 2014; a cardboard recycling program where an outlet to receive "bloody" cardboard was found that recycled over 679 tons of cardboard in 2014.

The total revenue from recycled materials from the Troy plant in calendar year 2014 was $220,755.41. There was a total of 11,988,092 tons of materials that was diverted from the landfill. The cost to dispose of this was more than $266,033. Recycling has provided a cost avoidance of more than $2.6 million if all of the recycled material were sent to the landfill.

For more information about the Encouraging Environmental Excellence Program and the three levels of recognition, visit www.epa.ohio.gov/ohioE3.aspx or call (800) 329-7518.