

Encouraging Environmental Excellence – Silver Level Award

Kent Elastomer Products – Kent Facility

In 2014, Kent Elastomer Products' Kent facility 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 Kent facility serves a variety of markets including medical, dental, food/beverage, sports/recreation, laboratory and industrial. The facility manufactures natural rubber latex tubing in I.D.s from 1/32 in. to 1 in., wall thicknesses from .015 in. to .250 in., and lengths from 1/16 in. to 50 ft.; and custom dip-molded natural rubber latex and non-latex products including synthetic polyisoprene material. Its expansive product offering includes probe covers, bellows, neck seals and a variety of other unique shapes and sizes. The company also provides design assistance and low-cost prototype development. The Kent facility employs 30 hourly workers.

Commitment to Continued Improvement

Kent Elastomer's commitment to the environment is supported by a deep, fully ingrained corporate principle of continuous improvement. This principle is integral to the very existence of the company.

Continuous improvement is a common thread in the company's fabric. Safety, environment, hygiene, costs and efficiency are interwoven, not separate entities. There are not separate "programs" or departments supporting each. The same tools and methods are used to make improvements to all of them, sometimes simultaneously.

In 2006, the Lean Enterprise journey began. As of June 2013, 387 Kaizens were completed company-wide, 147 of those in the Kent facility. In Kent, some areas have been "Kaizenized" more than once. Not all of the Kaizens were environmentally focused; but "lean" opened the door to look at all areas, brainstorm ideas and to ask, "why not?"

The company's mantra: Continuous improvement is a journey, not a destination. Continuous improvement is a progression, not a project.

Employee Efforts Yield Results

To complete and sustain improvements, the company uses tools such as Kaizens, 6S, process mapping, value stream analysis, line balancing, kan ban, poka yoke, visual work place, one-piece flow and spaghetti charts. "Lean" provides a



Kent Elastomer Products – Kent facility is recognized for:

- Energy savings by controlling purchases of equipment and components to reduce energy; engineering out large uses of water, electrical and natural gas in the buildings and processes; minimizing wasted energy in areas such as lighting, compressed air, chilled water and heating.
- Landfill reduction with across-the-board efforts aimed to reduce, reuse and recycle any superfluous by-products from day-to-day operations at the facility.

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systematic approach to incremental improvements. Recently Six Sigma tools were added to the tool box when three employees became Six Sigma Black Belts.

The facility reduced water by 56 percent, electric by 20 percent and gas by 12 percent. In approximately five years, it went from a high of 284 dumpsters annually to the current level of 104 dumpsters picked up each year, toward a goal of 0 dumpsters.

Water use reduction:

- The facility identified that the biggest water usage was city water that was used to cool the latex tanks then routed down the drain. Engineering and maintenance worked to re-pipe the city water lines into the existing chilled water system. Water is now reused in this closed-looped chiller system. This system was installed during 2009. The “before” data showed that 21.5 million gallons were consumed in 2007; and the “after” data showed that 11 million gallons were used in 2009. That is a reduction of 10.5 million gallons – or 49 percent from one project.

Electricity reduction:

- The chiller was changed to a smaller unit to better align with production needs. Smaller equipment requires less energy to run.
- The air compressor was changed to a variable speed unit. The original air compressor was a traditional on-off style. The new air compressor can ramp up to the required speed to match demand. It runs less often and only at the required speed.
- 74 light fixtures in the offices and lunchroom were changed to high-efficiency T8s. The annual energy usage dropped from 24916 kWh to 15118 kWh, saving 9798 kWh per year.
- Motion sensors are installed on lights in low-traffic areas and equipment is turned off when not in use.

Gas reductions:

- The entire dock was sealed (by installing insulation, replacing doors, and sealing gaps in dock seals).
- Two 40-gallon water heaters used to provide hot water to the manufacturing, lunchroom and restrooms. One unit was removed and the hot water demands in the area met with just one 40-gallon unit. In the front office area, one 40-gallon water heater was replaced with a 6-gallon unit.

Kent facility dramatically reduced the number of dumpsters going to a landfill in several improvement steps including:

- implementing recycling (cardboard, paper, plastic);
- implementing lunchroom recycling through Portage County;
- going to re-usable raw material totes where possible;
- returning spools to fish line suppliers rather than tossing them.

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.