

AstraZeneca delivers green science

When Premier contracted supplier AstraZeneca unveiled its corporate sustainability goals for 2006-2010, its U.S. headquarters, R&D laboratories, manufacturing facilities and commercial operations were well positioned to contribute to achieving those targets. Strong programs continue to minimize waste and emissions at each site and produce solid results year after year.

Significant achievements in 2007 include:

- A lab renovation project in Wilmington, DE, has recycled or reclaimed 6.8 million pounds of construction debris. Approximately 89 percent of the rubble generated by the renovation is diverted from landfills.
- The Westborough, MA, manufacturing site used competitive bidding and contract negotiations to recycle waste plastics. Not only did the site's recycling credits improve by 225 percent, they also more than offset the site's waste management costs.
- The Newark, DE, manufacturing site not only recycles glass, paper, plastic and cans, but also electronic waste, including batteries, CPUs, monitors, printers, cell phones, CDs and DVDs. In 2006, this site recycled more than 190 tons of material and in 2007 is on track to exceed its goal of reducing waste by 10 percent compared with 2005.
- The Waltham, MA, R&D lab expanded its recycling program to include non-hazardous lab glass, plastic and wooden delivery pallets.



According to Patti Civitella, environmental manager at the Wilmington campus, credit for these success stories belongs to the AstraZeneca employees. Although employees have been recycling soda cans and paper since 1992, those employees directly involved with various processes and materials expanded the program, primarily by involving contractors and suppliers, Civitella said.

“For example, our Wilmington laboratory used to receive one- and four-liter solvent bottles packed in polystyrene foam inside the cartons,” Civitella said. “Now, at the initiative of our Facilities group, the supplier is using cardboard inserts instead, because using our existing recycling program for cardboard was more efficient than establishing a new one for extruded polystyrene foam.”



Recycling tubes outside AstraZeneca's lab renovation project in Wilmington.

In addition to recycling, all of the company's U.S. sites are actively engaged in minimizing waste. Among the programs currently in place are reducing the use of solvents, replacing disposable garments and items with reusable ones and implementing a companywide software tracking and inventory system to eliminate duplication and over-ordering of supplies.

With successful recycling and waste-minimization programs well under way, the company is tackling the goal of reducing carbon dioxide emissions and implementing other sustainable energy practices. Unique circumstances at each of the sites add to the challenge. The Wilmington campus covers acres of ground with both office space and a large R&D facility. Both Newark and Westborough are supply sites, but the relative ages of the buildings and their manufacturing lines result in different energy needs. Waltham, constructed in 1999, is solely an R&D facility, with a modern, energy-efficient design. And the company's U.S. sales organization operates more than 6,400 vehicles and collectively drives the distance to the moon and back every day.



Recycling containers used in the company's Wilmington site, and located throughout various company sites.

The only way to ensure success with such a disparate organization was to establish a common vision while empowering five diverse groups to develop specific plans for energy and waste management.

“Achieving the necessary efficiencies has required some creative rethinking,” said David Gobris, U.S. director of safety, health and environmental strategy. “It’s vital to involve all employees across the company in developing energy goals that will deliver the desired CO2 reduction. It’s also important to give the sites flexibility to own these processes going forward.”

That sense of ownership is apparent from each site/business plan. The technical challenge for the sites/commercial operations is to meet their energy reduction goals while continuing to deliver prescription medications safely and efficiently.

“To meet these kinds of challenges, it’s imperative that employees work together to develop creative solutions,” Gobris said.

Added Heidi Thear, U.S. environmental senior manager, “We are educating our employees to take into consideration the environmental impact of their day-to-day decisions and empowering them to identify and implement waste and energy

opportunities. This approach enables all employees, not just the energy team members, to be involved. Even small-scale ideas can produce measurable results.”

The Westborough site is taking a similar approach to both energy and waste reduction goals. Last year, the site held an Energy Fair, where local vendors shared information and sold discounted, energy-efficient lighting to employees, who purchased more than 780 light bulbs and 114 light fixtures. Those items equate to a reduction of 637,576 pounds of CO₂ over the life of the product, according to EPA estimates.

The Newark, DE, manufacturing site completed installation of a heat recovery system which the team estimates will produce an annual savings equivalent to more than 500,000 lbs of CO₂ emissions.

Heating and cooling are key components of saving energy at R&D sites, where each laboratory is equipped with fume hoods. The Waltham facility, the company’s newest laboratory complex, was designed with many automated systems built in for energy efficient operation. Renovations underway at the Wilmington lab will incorporate similar systems. A lighting control system will be installed that can reduce energy consumption by 65-80 percent, according to the manufacturer.

But the AstraZeneca energy teams are concerned with more than just buildings. Both the Waltham and Wilmington sites have won awards from the EPA for their alternative transportation programs, offering shuttles, carpools and telecommuting options to employees. In the field, more sales personnel than ever are driving hybrid vehicles and changing their sales routes to minimize their miles. SUVs are no longer offered to the sales force, and the average miles per gallon of vehicles for field sales employees jumped to 25.6 in 2006 from 21.85 in 2004.

Sourcing from local utilities is another element in the total energy package. Deregulation of the utility industry means that companies have more options when choosing a service provider.

“In both Delaware and Massachusetts, we can go on to the open market and determine who we want to buy electricity from,” said Rick Keane, senior director of Facilities and Engineering Strategic Planning at Wilmington. “And we don’t just look at pricing, although that is of course a consideration. We also look at how the power company generates the electricity – what their energy sources are and their CO₂ emissions.”

AstraZeneca recently joined the U.S. Green Building Council, and will be adding that organization’s LEED benchmarking to its portfolio of sustainability programs, which will soon include both the EPA Energy Star Program and the EPA Wastewise Program. This comprehensive strategy – and active participation by enthusiastic and creative employees – is how the company that makes the purple pill is actively working to turn itself green.

About AstraZeneca

AstraZeneca is one of the world's leading pharmaceutical companies, providing gastrointestinal, cardiovascular, neuroscience, respiratory, oncology and infection medicines to help enrich the lives of patients, their families and communities. In the United States, AstraZeneca is a \$12.44 billion healthcare and pharmaceutical company with more than 12,000 employees.

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