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NEWS

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Illinois businesses and organizations receive Governor's awards for achievements in pollution prevention

SPRINGFIELD – The Illinois Department of Natural Resources today named 15 Illinois companies and organizations 2005 Governor's Pollution Prevention Awards winners for their significant achievements in protecting the environment and boosting the economy.

"These organizations are leading the way in finding and using new ways to reduce waste and protect the environment. They have made an ongoing commitment to prevent pollution that, in the long run, will make their employees and our communities healthier," said Gov. Rod Blagojevich.

The 19th annual Governor's Pollution Prevention Awards were presented in Glen Ellyn during a luncheon hosted by the Waste Management and Research Center (WMRC), a division of the Illinois Department of Natural Resources (IDNR).

"Gov. Blagojevich and I applaud the accomplishments of these award winners in reducing and recycling waste to help us conserve valuable natural resources while keeping our land, air and water clean," said IDNR Director Joel Brunsvold.

The Pollution Prevention (P2) projects recognized through the Governor's Pollution Prevention Awards program produced millions of dollars in savings in material and disposal costs. The award winners worked to prevent hundreds of tons of waste materials from being released into the environment and saved millions of gallons of wastewater from being sent to treatment facilities.

Applicants for the awards were judged in a statewide competition on criteria including technological innovation, environmental significance, economic benefits and commitment to pollution prevention. Pollution prevention engineers from the Illinois Waste Management and Research Center reviewed the applications, while the Illinois Environmental Protection Agency determined company environmental compliance.

"We were impressed again with the variety and quality of the projects undertaken by the winning companies," said George Vander Velde, WMRC Director. "These businesses and organizations have proven that pollution prevention makes good sense for the environmental and economic health of Illinois. They have achieved their pollution prevention goals and saved millions of dollars in pollution control, waste disposal, energy and raw material costs."

The 2005 award winners are listed below. Information on the Governor's Pollution Prevention Awards program and technical assistance on pollution prevention are available from the Waste Management and Research Center, One Hazelwood Drive, Champaign, IL 61820, phone 217/333-8940, <u>www.wmrc.uiuc.edu</u>

2005 GOVERNOR'S POLLUTION PREVENTION AWARD WINNERS Large Industry Category

Akzo Nobel Non-Stick Coatings (ANNSC) in Des Plaines is a global manufacturer of non-stick and high heat protective coatings for cookware manufacturers, the automotive industry, and other industrial equipment manufacturers. The manufacturing process requires extensive equipment cleaning between batches to eliminate potential cross contamination. During the process of implementing an ISO 14001 Environmental Management System, ANNSC examined and prioritized its major environmental aspects. Through this analysis, the people at the facility found ways to minimize environment impacts and track the changes. An initiative also was developed to reduce hazardous waste from cleaning operations. As a result, there was a 35 percent reduction in hazardous waste in overall production in 2004. The liquid waste disposal costs in 2004 were reduced more than \$41,000 from the previous year, a 47 percent reduction.

Cardinal Health in McGaw Park is a supplier of products, services and technologies that support the healthcare industry. Cardinal Health has been recycling corrugate, paper, plastics, and metals for many years in an effort to reduce landfill and hazardous waste. Cardinal evaluated existing processes and developed new procedures for routing expired and obsolete products to more environmentally friendly paths. The obsolete products are donated to World Vision, an international Christian relief and development organization, to be used domestically or overseas. Whatever World Vision is not able to use is either recycled or sold for veterinary use only. Cardinal Health enlists the services of people with disabilities from Countryside Association to sort the products and send components to the appropriate venue. This process has decreased both landfill and hazardous waste disposal and has given Cardinal Health an opportunity to give back to the community. Since 2001, Cardinal Health has reduced its waste more than 14 million pounds through donation, recycling, or re-selling products.

Cintas Corporation in Romeoville is a large industrial laundry processing approximately 16 million pounds annually. Cintas had used more than two million gallons of fresh water in the wash process at a cost of more than \$21,000 in water and sewer charges per month. Cintas installed a new wastewater treatment system, which reused water and reused the effluent from the process. The new system allowed Cintas to meet discharge limits. Modifications to the wash formulas were made to take advantage of the reused water while keeping the cleaning quality equal to that of the standard fresh water formulas. Cintas reduced fresh water usage by more than 60 percent, or more than one million gallons per month. Water and sewer charges were reduced by more than \$10,000 per month. Now, several other Cintas plants are reusing water and achieving similar results because of the work done in Romeoville.

Service Organization

Sarah Bush Lincoln Health Systems (SBLHS) in Mattoon is a community-based, not-for-profit organization whose mission is to improve the health of people in east central Illinois. SBLHS provides health services 24 hours a day to patients of all ages. SBLHS established a committee to examine ways to improve the organization's conservation efforts. Working with local and state officials, the healthcare system identified steps needed to establish long-term and sustainable pollution prevention efforts within the organization. SBLHS also conducted a building energy audit and waste audit, resulting in several conservation projects and substantial savings to the organization. The health system installed a geothermal heating/cooling system in the Regional Cancer Center, upgraded to energy efficient lighting and fixtures, began recycling cardboard, and instituted a pilot project for paper and plastic recycling which will be expanded to more sites this year. In one year, these steps have saved SBLHS an estimated \$278,125.

Continuous Improvement Awards <u>Vendor/Supplier</u>

Solvent Systems International Inc. in Elk Grove Village is an expert in beneficial reuse, industrial waste recycling and pollution prevention. The company worked with the WMRC to develop The Grease Gator, a water-based parts washer with a built-in cleaning fluid. The patented Grease Gator immediately splits oil from the cleaning solution enabling quick removal of the used oil while keeping the non-hazardous cleaning solution constantly clean. It eliminates the need for solvents and slashes parts cleaning costs. It has been proven in independent tests to clean the dirtiest parts 57 percent faster than mineral spirits. The Grease Gator reduces volatile organic compound (VOC) emissions by 99.5 percent compared with mineral spirits (VOCs facilitate the creation of greenhouse gases). Also, the Grease Gator will eliminate 1,000 pounds of organic waste per year for each mineral spirits parts washer replaced. The Grease Gator also makes oil recovery easy during the cleaning process so customers can use the recovered oil as a heating oil replacement.

Large Industry Category

Cadbury Adams in Rockford is a major manufacturer of chewing gum. Two projects were undertaken in 2004 that had positive environmental benefits. Units that use non-contact cooling water to provide temperature variability for melting the gum base used water from the local municipality. That water has a high mineral content, so the cores of the units become fouled frequently which restricts water flow. The cores needed to be de-scaled several times per year using hazardous chemicals. Cadbury Adams developed a process using softened chilled water from a closed loop system along with heat exchangers. This process brought about a 46.8 million gallons-per-year reduction of water use and elimination of labor and chemicals to de-scale the units. Cadbury Adams also reduced the use of an ozone-depleting refrigerant in its plant by substituting the use of chilled water to provide the right temperature conditions for curing its gum. The company is saving \$145,100 a year from this initiative.

Caterpillar Inc - CMO located in Mapleton is an iron foundry primarily casting engine blocks, engine heads and cylinder liners. At Caterpillar's Cast Metals Organization (CMO), metal castings are made by pouring molten iron into sand molds, allowing the iron to solidify and cool, and removing the castings from the sand. The rough casting then goes through a finishing process that includes blasting with steel shot. Historically, the plant would collect used shot in a dumpster to be disposed of off site or melted down in the furnaces. In the new process, the shot is accumulated in tubs and sent to a recycler who cleans and sorts it. The plant has improved air

quality for employees, reduced the amount of waste going to an offsite landfill, and saved the facility an estimated \$70,000 per year.

Caterpillar Mossville Engine Center in Mossville produces medium size truck engines. In 2004, a cross-functional team worked to improve diesel engine First Test Acceptance (FTA) rates, which had fallen as a result of rapid design changes to meet evolving EPA air emission requirements. Within about eight months, the team successfully increased FTA rates by about eight percent by pinpointing quality issues and correcting them at the source. Any improvement in the number of engines that successfully pass engine testing on the first test eliminates the need for additional testing, using less fuel and reducing air emissions. By the end of 2004, projected air emissions from diesel fuel consumption dropped by more than 10 percent, translating into more than \$2.88 million in annualized savings.

Electro-Motive Diesel, Inc. in LaGrange manufactures and rebuilds diesel engines and locomotive components. The facility generates a variety of waste from manufacturing and testing operations including used oils, cutting fluids, paint and solvents, concrete, pallets, scrap wood, cardboard and paper. These materials are segregated and recycled. The company has reduced the disposal of cutting fluids by 100,000 gallons per year at a savings of \$15,000. Product substitution in the cleaning of adhesives on engines reduced the amount of hazardous waste generated and disposed by 500 pounds and saved \$1,000 per year. The facility also reduced the amount of water used by 3.6 million gallons, saving \$7,300 per year. Electro-Motive increased recycling of wood pallets by 35 percent, cardboard recycling by 27 percent, scrap wood recycling by 15 percent and used oil recycling by 58 percent in 2004 compared with 2003. The facility is also investigating the use of ultra filtration to reduce off-site cutting fluid disposal.

GE Healthcare in Arlington Heights is a manufacturer of radiopharmaceuticals that are used by physicians in the diagnosis of disease through various imaging techniques. In 2004, GE Healthcare began a project to upgrade radiochemical manufacturing and reduce employee exposure by installing a more efficient state-of-the-art machine. The project required the removal of 150,000 pounds of concrete. The sections removed could not be disposed of by conventional means because of the presence of radioactivity from nearly 20 years of cyclotron operation. Rather than sending the material to a licensed radioactive burial facility with finite space, the concrete was incorporated into the shielding of two new target cells. This resulted in the company saving an estimated \$750,000 in disposal fees. By recycling this concrete, space was made available at a burial site for materials that cannot be recycled.

International Truck and Engine Corporation in Melrose Park produces diesel engines for mid-sized trucks and school buses. In 2004, the company modified its method for testing the hardness and depth of the crankshafts it produces. International changed from a destructive method to a non-destructive method using ultrasound. International estimates that this change could save up to \$150,000 per year and reduce 9,166 pounds of waste scrap crankshafts. International estimates an additional \$368,000 in annual savings by switching to water-based paint, substitution of cleaners, and improved chemical management of coolants. **Nalco Company**, located in Bedford Park, is a specialty chemical company that manufactures a variety of products used for casting of metal parts and ceramic forms. The plant made improvements to its manufacturing process, recovering more products and reducing the number of cycles of adding chemicals. Nalco also developed a new technology, saving millions of gallons of water, reducing treatment chemicals needed by 60 percent, and reducing wastewater

solids by 27.6 percent. The overall savings totaled more than \$3 million. Nalco also continues to make creative and beneficial use of idled buildings, which are now used by various governmental and local agencies. Training drills were held at the facility, benefiting community emergency response teams and area hospitals.

National Manufacturing is a building hardware manufacturer based in Sterling and Rock Falls. In 2004, the company switched from an electrostatic spray paint system to an electrocoat painting process for coating its gate hardware. The company estimates that this change reduced its volatile organic compound (VOC) emissions by 8.416 tons per year. The solvent used to clean the spray guns has been reduced by 960 gallons annually. The company estimates an annual energy savings of \$40,845. The company saved \$72,475 on the annual cost of paint because the new process used 2,250 fewer gallons. The new e-coating technology also improved the paint coverage and thickness, resulting in a better coating.

Medium Company Category

ZF Sales and Service in Vernon Hills remanufactures drive train components such as transmissions, axles, gearboxes, and steering gears for trucks, buses, cars and construction equipment. In 2004, ZF recovered and reused 80 percent of material sent to the company, avoiding shipment of 1,500 tons of waste to a recycler or landfill. By analyzing its energy use and implementing a series of changes, ZF reduced its electricity consumption from 200 kW to 100 kW. The resulting electric savings will be more than \$24,000 annually. ZF also modified its process to reduce zinc consumption by more than 3,000 pounds annually for savings of \$7,000. By exploring alternatives, ZF has eliminated use of 28 high-risk chemicals during the past two years. ZF also purchased remanufactured office furniture, saving more than \$160,000 when compared to new.

Small Business Category

Norco Cleaners in Dolton has been a family-owned dry cleaning, laundry, and wet cleaning business since 1944. The company provides services to hotels, convention sites, commercial properties, schools, universities and hospitals. Company officials decided to implement a new technology that would reduce emissions and use of solvents for dry cleaning. Norco converted to refrigerated coils for the evaporation of the petroleum solvents. In 2004, the amount of solvent savings and emission reductions compared to 2002 amounted to a nearly 47 percent savings or almost \$5,500 annually. The cost to fully replace two reclamation units would have been close to \$70,000, while conversion units installed by Norco employees cost \$14,000. In addition, Norco is replacing mercury-containing lights with newer, more environmentally friendly lighting.

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