Gov. Blagojevich lauds businesses and organizations for achievements in pollution prevention

SPRINGFIELD - Governor Rod Blagojevich today named 15 Illinois companies and organizations winners of the Governor’s Pollution Prevention Awards for significant achievements in helping the environment and the economy.

“The award winners are leaders in their industries because of their ongoing commitment to the environment, their communities and their employees,” Gov. Blagojevich said. "Many of them have sustained pollution prevention programs over a number of years, striving to find new ways to reduce waste and show how pollution prevention is good for our economy and for retaining and creating jobs in Illinois."

The 18th 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.

"The exceptional accomplishments of these companies in reducing, reusing and recycling waste and improving air and water quality are enhancing our environment and conserving valuable natural resources," said IDNR Director Joel Brunsvold.

The Pollution Prevention (P2) projects saved the honored companies and organizations millions of dollars in material and disposal costs. The companies and organizations also prevented hundreds of tons of waste materials from being released into the environment and saved millions of gallons of water from being sent to treatment facilities.

Applicants were judged in a statewide competition on criteria including technological innovation, environmental significance, economic benefits and commitment to pollution prevention. WMRC pollution prevention engineers reviewed the applications, while the Illinois Environmental Protection Agency determined company environmental compliance.
"Again this year, we were impressed with the variety and quality of the projects undertaken by
the award 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."

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, www.wmrc.uiuc.edu

2004 Governor's Pollution Prevention Award Winners

Large Industry Category
Behr Process Corporation in Chicago Heights manufactures stains, varnishes, and paints and is
committed to meeting and exceeding environmental regulatory requirements whenever possible.
Behr Process Corporation is an ISO 14001 certified company. Behr plastic pails and cans are
made with post consumer plastics so that they may be recycled. The company had saved
approximately $6,000 by recycling and has diverted approximately 479 tons of recyclable
material from disposal. Behr Process Corporation not only prevents waste, but also buys recycled
products.

The Crown Cork & Seal USA, Inc. facility in Aurora, IL coats and decorates metal sheets for
the eventual (at other locations) fabrication of cans and ends. The project implemented was to
reduce and eventually eliminate the backwash solvent used on two sheet-coating lines. Prior to
implementing the projects, Crown used in excess of 23,000 gallons of solvent and disposed of
375,000 pounds of hazardous waste. The total amount spent on these items was in excess of
$300,000 per year. Crown developed a method for recycling the waste solvent generated so that
the waste material would never leave company property and the risk of contamination from other
waste would be eliminated. The purchase of virgin solvent was reduced from 23,000 gallons to
3,100 gallons and hazardous waste disposal was reduced from 375,000 pounds to 234,000
pounds. In total, the establishment of the program generated annual cost savings of $129,000.
Crown made a modification to the coaters that allows them to operate without the use of the back
wash solvent, and the company continues to recycle the small amount of solvent used on the two
coaters. As a result, plant-wide disposal of hazardous waste was reduced another 77,000 pounds
and total costs decreased another $71,000.

GM Electro-Motive in LaGrange manufactures and rebuilds diesel engines and locomotive
components. The facility generates a variety of waste materials from the manufacturing and
testing operations including used oils, cutting fluids, alkaline cleaners, paint and solvents,
concrete, pallets, scrap wood, cardboard, and paper. These materials are segregated and recycled
using an Environmental Management System. GM Electro-Motive has reduced the disposal of
cautic liquid solutions by 1,200 gallons per year at a savings of $2,500 per year. Product
substitution of xylene with “Simple Green” in engine cleaning reduced the amount of hazardous
waste generated and disposed by 2,000 pounds and saved $1,500 per year. By segregating used
- more -
oils, the facility increased the amount recycled by 35 tons and decreased the amount going for secondary fuel at a savings of $3,500 per year; and eliminated 80 tons of water in sludge that would be sent for disposal offsite, saving $5,000 per year.

**Cadbury Adams** in Rockford worked with a water treatment company to reduce the volume of brine solution used during the regeneration process of its potable water. After reviewing the materials, analyses were performed to determine what the operating and environmental benefits would be from implementing such a system. An environment evaluation was also conducted which showed that there would be a reduction in water usage, and a reduction in the amount of brine solution discharged to the sanitary sewer system. The final qualifier was that the quality of the softened water would not be diminished. The project was implemented with the purchase of a control system that monitored concentrations of the effluent from the regeneration process and installation of some additional piping for returning the brine solution to the brine tank.

**Educational Institution**

**Community Unit School District #3 (Cuba) Cuba School** -- The Board of Education, the administrators and staff of C.U.S.D. #3 in Fulton County, worked together to design a building that has been called a “benchmark” school in a small, rural district. Grants were sought for energy efficiency and sustainability. The school district incorporated as many elements of “green” design as it could afford to build the new Cuba Middle/Senior High School. Consideration was given to air quality, acoustical comfort, geothermal heat pumps, photovoltaics, recycled materials, additional insulation in the walls and ceiling, energy efficient windows, de-lighting, and a possible wind turbine. The district plans to write cross-curricular environmental units of study into its curriculum and apply for future grants to develop natural areas.

**Service Organization**

**Fermi National Accelerator Laboratory** (Fermilab) is located in Batavia. Fermilab employees proposed and implemented a liquid nitrogen recovery system at D-Zero, a 5,000-ton sub-atomic particle collision detector, which detects particle collisions occurring within the world’s largest particle accelerator. Near the collision point, Fermilab uses liquid nitrogen to cool the Visible Light Photon Counter Chips at a temperature of -444 Fahrenheit. The nitrogen cooling system left some of the liquid nitrogen not vaporized, producing liquid exhaust and vaporization in a large vertical heat exchanger outside the D-Zero assembly hall. This recovery system will save the lab approximately $43,000 or 207,360 gallons a year in liquid nitrogen, increase the efficiency of the liquid nitrogen system, and reduce the heat load on other cooling systems.
**Continuous Improvement Award**

**International Truck & Engine Corp.** in Melrose Park produces diesel engines for mid-size trucks and school buses. The company’s crankshaft machining line’s tapping operation used chlorinated paraffin based lubricant for the harsh roll-tapping operation. International installed a new flow-through tapping operation that eliminated the toxic lubricant and replaced it with synthetic coolant. Additionally, the company developed a wooden pallet recycling process that eliminated the extra handling and costly labor. The company also was successful in improving the paint booth transfer efficiency by reprogramming the paint robots. This reduced the paint usage, waste paint sludge, air emissions, and energy by 21 percent. A reduction of 2700 gallons of paint and 3500 pounds of air emissions resulted from this change. The cycle time was improved along with the quality. These efforts resulted in a savings of $330,000 for 2003.

**Commonwealth Edison (ComEd)** and the City of Chicago have teamed up with governmental, labor and community partners to form the Chicago Solar Partnership, a unique private-public partnership. This partnership has facilitated the installation of $12 million in solar electric systems in schools and public buildings across the city. The combined capacity of the all the solar installations is one mega-watt. The solar electric systems not only provide pollution-free energy, but also help offset a portion of the energy bills of the facilities that house them. The Partnership hopes that these installations raise awareness and understanding of solar energy and the benefits it can provide. To help Chicago Public Schools bring the lessons of solar energy into the classroom, real-time energy output data from all of the solar systems and solar-based curriculum is available on the web at [www.chicagosolarpartnership.org](http://www.chicagosolarpartnership.org).

**Nalco Company** in Bedford Park is a specialty chemical company that manufactures a variety of products used for casting of metal parts and ceramic forms. This past year, the plant made process improvements that reduced the amount of wastewater treatment chemicals used by 64 percent, and reduced the amount of solids in the wastewater by 46 percent. Nalco also initiated some inventory and recycling projects that reduced waste from the plant by 4.1 percent. The overall savings from these projects totaled $764,000. Nalco also became home to a number of creative beneficial reuse projects of idled buildings, providing resources to various governmental agencies.

**Sherwin Williams-Minwax** based in Flora, Illinois, is the only site in the country to manufacture Minwax wood stains, topcoats, and waxes of both the oil and water-base variety. Recycling and waste reduction come from the production operation where wash by-products are generated. Minwax instituted an in-house recycling program that used 250 gallon steel totes to help capture the wash by-products in 2003. Minwax has increased its efforts this year, raising the number of lines using this system from two to seven and the number of totes collecting the different family products from eight to seventeen. The amount of wash reused on-site from the tote program is 1.6 million lbs. at a cost savings of $336,000.

- more -
Caterpillar’s Technology and Solutions Division in Peoria was challenged to create a world-class “virtual engine” simulation tool that would have the accuracy required to bring better combustion technologies to market sooner, by reducing the time and expense to evaluate concepts and diagnose problems. A diesel combustion simulation tool was developed and used to predict engine performance and emissions for both near-term and long-term enabling technologies. Through the use of the “virtual engine” model, the team reduced traditional engine test cell time from five months to seven days. This saved approximately 3000 hours of test cell time. Through the use of the “virtual engine” model, the consumption of nearly 44,000 gallons of diesel fuel was avoided resulting in a reduction of over seven tons of emissions.

Abbott Laboratories is located in Abbott Park, IL. Project work undertaken by Abbott last year included:

- A pollution prevention process review tool was created to identify and evaluate pollution prevention projects in bulk pharmaceutical manufacturing. The use of this tool on one process resulted in a 39 percent reduction of hazardous materials, an associated reduction in hazardous air emission, and a 42 percent reduction in hazardous waste generated.
- Disposable apparel was replaced with reusable clothing, resulting in 67,000 cubic feet of non-hazardous waste being diverted from a landfill each year for a net savings of over $460,000.
- Hybrid electric-gas vehicles were introduced into the commercial sales and service fleet. The increased fuel efficiency of the vehicle is estimated to be a savings of over 7,600 gallons of fuel per year for all 16 vehicles in the study, for an estimated cost savings of over $13,500 per year.

Caterpillar Cast Metals Organization (CMO) located in Mapleton confirmed its commitment to pollution prevention by replacing a 30-year old proven process with a new technology that reduced air emissions, lowered costs, and improved the health and safety of the workplace. CMO is a gray iron foundry primarily casting engine blocks, engine heads, and cylinder liners. 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 outside of the metal casting is formed by the sand mold itself, and sand and resins are combined to make a resin system called Isocure 308/608 in its engine block core-making process. This past year, a project was launched to replace this resin system with a better performing and more environmentally safe resin called Isocure 408/808. Through this system, Volatile Organic Matter (VOM) emissions will be reduced by 12.3 tons annually. The expected annual savings are $810,000, which represents a 20 percent reduction in sand and resin costs.

Maytag Herrin Laundry Products, located in Herrin, Illinois, is a manufacturer of household washers and dryers. Pollution prevention efforts have focused on source reduction of paint and cleaning solvents, water conservation and reuse, energy conservation, preventive maintenance, and solid material recycling. Total energy savings for the project is 2,616,045 kWh (kilowatt hours) per year. Air emissions reductions experienced from this project are experienced at the

- more -
power plants that supply our electricity. The annual emission reductions are estimated to be more than 830 tons.

**GE Healthcare Bio-sciences**, located in Arlington Heights, is a manufacturer of radiopharmaceuticals that are used by physicians in the diagnosis of disease using various imaging techniques. The facility recently has invested over $667,000 to upgrade an exhaust system and house vacuum system. The new exhaust system has replaced five independent air effluent extraction systems. The exhaust system and house vacuum system have a more efficient filtration and absorber system. The two electrical motors used on the new exhaust have a rated efficiency of 94.5 percent as opposed to a rated 84 percent efficiency for the electrical motors that were replaced. The investment has resulted in an 80 percent reduction in air emissions associated with radiopharmaceutical production. GE Healthcare Bio-sciences was previously known as Amersham Health.