16TH ANNUAL GOVERNOR'S POLLUTION PREVENTION AWARDS

OCTOBER 18, 2002 HAWTHORN SUITES

HOSTED BY

THE ILLINOIS WASTE MANAGEMENT AND RESEARCH CENTER, A DIVISION OF THE DEPARTMENT OF NATURAL RESOURCES

16th Annual Governor's Pollution Prevention Awards

The 2002 Governor's Pollution Prevention Awards are presented to honor businesses and organizations in Illinois that have successfully reduced the generation of gaseous, liquid, and solid wastes. By recognizing the outstanding pollution prevention achievements of these organizations, it is our hope that others will be encouraged to join this effort to help both the environment and the economy. It has been shown that by adopting pollution prevention strategies, businesses can increase the efficiency of their operations and reduce their impact on the environment.

Since 1987, the Illinois Waste Management & Research Center has worked with the Governor's Office to recognize outstanding pollution prevention efforts in our state. Categories in the Governor's Pollution Prevention Awards include vendors/suppliers, community groups, service organizations, small, medium and large industries, and continuous improvement.

This year's honored companies and organizations reported pollution prevention projects with combined annual savings of \$5.1 million in material and disposal costs. These companies prevented nearly 17,000 tons of waste materials from being released into the environment and saved more than 45 million gallons of water from being sent to treatment facilities. These companies also reported the various projects reduced their energy consumption from 4-59%.

This year we are also presenting the second Innovate Illinois Award. This award is given to a company demonstrating a new pollution prevention technology innovation.

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Innovate Illinois Award

Caterpillar Inc. Technical Services Division (TSD)

Crazy Horse Concrete, Inc.

New Berlin, Illinois

Vendor/Supplier

Crazy Horse Concrete is a ready mix concrete producer in New Berlin. Crazy Horse Concrete decided to become a model company that would not only adhere to environmental regulations but also surpass them. A reclamation system was installed with the ability to retrieve the aggregates from the returned concrete while still in its plastic state. Dust collection systems were installed not only on the silos but also on the enclosed loading area. The company lot was paved with a slant into an area where a one-half million-gallon concrete storage pit retains all water from the rainwater and the manufacturing process. This water is re-used into the new mixes thereby alleviating use of city water. Constant cleaning of all equipment, buildings, and trucks keeps the business looking well maintained and the neighbors pleased!





Great Rivers Land Trust

Alton, Illinois

Community Group

Great Rivers Land Trust (GRLT) based in Alton is a local non-profit organization formed by private citizens to promote the preservation and improvement of natural resources in the watershed of the Mississippi River. In 1999 the Illinois-American Water Company began construction of a new water treatment plant to replace its longtime facility. Environmental regulations would require the planned facility to construct sediment lagoons instead of discharging the materials back into the river. As an alternative, the Illinois-American Water Company proposed funding the Piasa Creek Watershed Project to reduce sediment entering the Mississippi River 2:1 compared to what the water plant would discharge into the river. GRLT and the water company agreed to a 10-year project to reduce sedimentation in the watershed by approximately 6,600 ton per year. The process will include silt basins, dry dams, streambank stabilization, land acquisition, and various other practices to reduce sedimentation.

182 Airlift Wing, Illinois Air National Guard

Peoria, Illinois

Service Organization

The 182 Airlift Wing, Illinois Air National Guard based in Peoria has integrated pollution prevention technologies into daily operations. The Hazardous Materials Pharmacy (HAZMART) Program has created a central location for controlling the procurement and issue of hazardous materials by all organizations on base. Vehicle Maintenance has integrated several technologies into their daily operations including the oil-life extension program, fuel reclamation, and antifreeze recycling. A computer simulation Fire Arms Training System (FATS) has been established for qualifying base personnel. Use of the FATS system has reduced the number of live rounds fired by 80,000, and waste generated by the cleaning of weapons has been reduced by 70%. An Ultra Filtration (UF) unit has been installed in an aqueous parts washer in the Aerospace Ground Equipment (AGE) Shop. The UF unit is able to extend the life of the water/ detergent mixture in the tank reducing the amount of hazardous waste generated.

St. Elizabeth's Hospital

Belleville, Illinois

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Service Organization

St. Elizabeth's Hospital is a private not-for-profit acute care hospital in Belleville. St. Elizabeth's Hospital is dedicated to reducing pollutants into the waste stream. The hospital has implemented a number of programs to reduce such pollutants including: a mercury thermostat replacement program, mercury containing sphygmomanometers (blood pressure cuffs) and thermometers replacement program, fluorescent lamp and electronic ballast replacement program, and a sharps retrieval program that has kept over 42,600 pounds of plastics and sharps from being incinerated. Other programs that St. Elizabeth's has implemented include recycling programs for cardboard, office paper and batteries.





St. Joseph's Hospital

Breese, Illinois

Service Organization

St. Joseph's Hospital is a not-for-profit hospital located in Breese that is dedicated to protecting the environment while avoiding additional expenses. St. Joseph's implemented a mercury reduction program that included replacing all mercury thermometers and sphygmomanometers (blood pressure cuffs) with digital units, recycled used fluorescent bulbs and other mercury containing bulbs, and implemented an Environmentally Preferable Purchasing code to ensure that all new products entering the hospital are mercury free. St. Joseph's Hospital recycles paper, cardboard, newspaper and phone books, and silver by-products. St. Joseph's also replaced disposable products with reusable products wherever feasible. Other metal recycling programs include batteries, chemical drums, scrap metal and aluminum cans.









Norco Cleaners Inc.

Dolton, Illinois

Small Industry

Norco Cleaners in Dolton is a third generation drycleaner committed to maintaining a clean environment while providing services to the commercial community and the local customer. Norco's projects included: the development of a pre-filter system, installation of a heat exchanger system, eliminating the use of plastic poly bags for commercial customers, and implementing a technology to extract unused solvents for reuse. Norco has achieved the highest level of environmental compliance, "Gold Star" in the Illinois Drycleaner Star Recognition program. Norco was also the first drycleaner in the nation to become a Charter Member of the National Environmental Performance Track with US EPA. Norco's employees are continuously involved in environmental education and training and are encouraged to submit suggestions for environmental solutions.

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Gleason Cutting Tools Corp.

Loves Park, Illinois

Medium Industry

Gleason Cutting Tools Corp. in Loves Park is a leading supplier of gear cutting and finishing tools for general industry and other very specialized markets. Gleason Cutting Tools is an ISO 9001, Quality Management System, and ISO 14001, Environmental System, registered company. Through working under environmental, health, and safety improvement goals, Gleason Cutting Tools has not only reduced solvent usage, but also turned 100% of the solvent waste into a usable product that is recycled into roofing materials. In addition, machine wastewater has been reduced by over 13% through careful monitoring of production machine coolant properties, additives, and recycling frequencies.

ZF Industries Inc.

Vernon Hills, Illinois

Medium Industry

ZF Industries, Inc., in Vernon Hills remanufactures drive train components such as transmissions, mixer drives, axles, gear boxes and steering gears for trucks, buses, passenger cars and agricultural and construction equipment. In 2001, ZF developed a program to become certified ISO-14001 through numerous projects including assessment, waste management, energy conservation and productivity improvements. Projects included recycling metal, paper, batteries, printer cartridges, computers and wooden crates. ZF also implemented training for all employees and an employee suggestion program with incentives.



Minwax

Flora, Illinois

Large Industry

Minwax in Flora manufactures wood stains and waxes. Minwax developed a wastewater recycling program that uses totes on the water-base production lines to collect various types of water wash. Normally all of this by-product would be sent out as waste. Now it is saved for later re-use in a compatible blend. In 2001, Minwax reduced its water wash disposal by more than 30,000 gallons. Minwax also developed a system using air pressure to push a foam "pig" through the custom built launcher, manifold and filling line arrangement. The "pig" empties into the product hopper where the liquid is forced into cans as finished product.



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Baxter-Healthcare, Renal Division

McGaw Park, Illinois

Large Industry

Baxter-Healthcare, Renal Division, in McGaw Park develops, manufactures, and markets hemodialysis, peritoneal dialysis, and acute continuous renal replacement therapy products. Baxter's employees are committed to reducing waste through new and innovative waste reduction and recycling programs including: lighting conservation efforts that have resulted in a 28% reduction of electricity, installing a compressed air system that resulted in a 59% reduction of electricity, and installation of water economizers on sterilizers that resulted in a savings of 5.5 million gallons of water. Additionally, Baxter implemented recycling programs for non-hazardous waste including paper, cardboard, glass and plastic. Baxter also developed a master inventory program for laboratory chemicals to reduce hazardous waste and implemented training programs to reduce biohazardous waste.





Collins & Aikman Corporation Rantoul Products

Rantoul, Illinois

Large Industry

Matsushita Universal Media Services LLC of America

Pinckneyville, Illinois

Large Industry

Collins & Aikman Corporation has three locations in the Village of Rantoul that manufacture plastic automotive interior parts. Through the process of attaining ISO 14001 certification, Rantoul Products developed an Environmental Management Program with volatile organic materials reduction, regulatory and policy compliance, chemical spill prevention, solid waste and recycling, and environmental training. Over the past five years, Rantoul Products has had a 99% reduction in regulated paint waste disposal. VOC emissions were reduced greatly when the company switched from solvent borne paint to water borne paint. Rantoul Products also reduced the amount of solid waste disposed of in 2001 by 15% compared to the previous year. Matsushita Universal Media Services LLC of America in Pinckneyville produces music and video discs. The program reduced energy consumption, reduced consumption of the raw materials used in disc manufacturing, and implemented a pallet re-use program. Electricity consumption was reduced 13% on a per unit basis, which resulted in an approximate annual savings of \$141,616.92. The reduction in raw materials consumption resulted in an annual savings of approximately \$15,000 and reduced the amount of scrap being generated by 7,765 lbs. The pallet re-use program has reduced the scrap pallet production by approximately 53 pallets per day.





Lansing Cleaners

Lansing, Illinois

Continuous Improvement

Lansing Cleaners is a third generation dry cleaning facility that is focused on providing the highest quality of service to its customers while making the least environmental impact. Lansing has implemented several projects to achieve both quality cleaning and a clean environment. Projects include implementing "energy smart" power controllers that resulted in an energy reduction of 18-21%, utilizing heat insulated paint, putting reflective materials under lamps, and installing insulation around solvent lines and hot and cold pipes. Lansing also installed a CO₂ machine that uses 40% less energy and decreases hazardous waste generation by 75%.





Amersham Health

Arlingtion Heights, Illinois

Continuous Improvement

Amersham Health in Arlington Heights is a manufacturer of radiopharmaceuticals that are used by physicians in the diagnosis of disease using various imaging techniques. The Company has installed steam autoclaves that produce less wastewater, and improved vial filling equipment to reduce the level of radioactive contamination in the wastewater. A new wastewater management facility also was built to increase decay time for radioactive contents, segregate waste streams, detect and eliminate leaks, and prevent groundwater infiltration. Operation of the plant in 2001 reduced the amount of radioactivity in wastewater by 95% and the concentration of radionuclides by 91%.

Caterpillar Inc., Mining and Construction Equipment Division

Decatur, Illinois

Continuous Improvement

Caterpillar is the world's leading manufacturer of construction and mining equipment. The Mining & Construction Division located in Decatur continuously pursues pollution prevention opportunities to improve the environment, health and safety of the staff, facilities and surrounding communities. One such pollution prevention activity was the development of a fluids management project in which Caterpillar upgraded the Waste Water Treatment Plant and as a result, decreased its wastewater influent by 80,000 gallons per day. Caterpillar also implemented an oil contamination and reclamation program, and a mining and environmental education program that provides tools for teachers and students on minerals and mining. Caterpillar eliminated its use of hydrochloric acid and sodium hydroxide and discontinued its paint stripping operation.





International Truck and Engine Corporation

Melrose Park, Illinois

Continuous Improvement

Abbott Laboratories

North Chicago, Illinois

Continuous Improvement

International Truck and Engine Corporation in Melrose Park has targeted waste reduction and pollution prevention projects for many years. In 2001, International shifted its focus to conserving energy and utility resources, targeting natural gas usage and water consumption. The Melrose Park facility implemented a number of projects to attain its goal of 12% Natural Gas usage reduction including: window replacement, installing new truck dock seals, controlling HVACs using a computerized energy management system and steam recovery from cogeneration exhaust, and a boiler condensate return project. International also expanded its recycling programs for paper, cardboard, can, bottle, printer/toner cartridges, and dry cell batteries - which saved the facility approximately \$389,064 last year. The Melrose Park facility also replaced an old tower with a high-efficiency cooling tower.

Abbott Laboratories, North Chicago developed several pollution prevention projects. Abbott developed a Fermentation Spill Assessment and Correction Team that found ways to reduce the risk of spills through installation of operational controls, technology changes and process redesign. The company also eliminated odorous and costly waste solids via a process modification that saved \$970,000 in waste disposal costs and equipment expenses for the Clarithromycin process. An engineering team improved air dispersion on 31 fermentors by installing new equipment that lead to a 4% reduction in energy consumption by eliminating a portion of the agitation needed for each fermentor.

National Manufacturing

Sterling, Illinois Rock Falls, Illinois

Continuous Improvement

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National Manufacturing has factories in Sterling and Rock Falls that make builders hardware. The company's pollution prevention efforts include installation of reverse osmosis (RO) units on its brass cyanide rinse tanks, and construction of an Autotech Barrel Plating Line. The reverse osmosis units separate plating solution from the rinse water and return valuable chemicals to the plating tank. These units replaced aging steam coil evaporators and eliminated the need for stacks that exhausted properly permitted air into the atmosphere. The construction of an Autotech Barrel Plating Line saved floor space and uses less water. The larger barrel perforations improve solution drainage that allows the valuable metal to drain back to the tank for reuse in the plating process.





Stepan Company

Elwood, Illinois

Continuous Improvement

Caterpillar Inc., Technical Services Division (TSD)

Peoria, Illinois

Innovate Illinois Award

Stepan Company in Elwood is a manufacturer of chemicals used in a broad range of industries. Stepan has completed a series of projects that have reduced waste generation and air emissions. The plant implemented control system and control parameter improvements to a fractionation process thereby reducing the volume generated. Stepan also developed changes to reuse by-product sulfuric acid within the plant. Several sulfonic acid by-product streams are now sold as product rather than being sent offsite for reclamation. Stepan implemented a methanol recovery project using a Liquid Ring Vacuum System to achieve at least 95% recovery. For the second consecutive year, the Innovate Illinois Award is presented to Caterpillar Inc.'s Technical Services Division (TSD) in Peoria. The Innovate Illinois award goes to a company that has developed and implemented a new pollution prevention technological innovation. The award was presented for TSD's development of Virtual Fabrication Technology (VFT), which provides a virtual environment for design and tests that were previously conducted in the shop. Thus, testing of new processes can be performed with a computer model instead of being built, which eliminates resource waste and environmental impact. To date, the use of VFT has eliminated close to 125,000 pounds of material waste and 15.75 pounds of weld fume from just 15 applications.

Governor's Award Trophy



trophies created by Glass FX, Champaign, Illinois



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