

Governor's Pollution Prevention Awards & Illinois Sustainable Technology Awards

For the past 21 years, the Illinois Waste Management and Research Center (WMRC) has worked with the Illinois Governor's office to recognize outstanding pollution prevention efforts in our state. These annual awards are presented to businesses and organizations in Illinois that have successfully reduced the generation of gaseous, liquid, and solid waste. The Pollution Prevention (P2) projects honored this year saved the 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. There are two types of Governor's P2 Awards—the one given to first time winners and the Continuous Improvement Award, which is given to repeat winners.

This year, WMRC also is honoring two companies with the Illinois Sustainable Technology Award. The Illinois Sustainable Technology Award recognizes a novel technology or process that leads to significant waste reduction, waste elimination, or environmental impact.

Table of Contents
(Winners are listed alphabetically)

Abbott	Page 3
Akzo Nobel Non-Stick Coatings	Page 3
All-Brite Anodizing Co.	Page 4
Amerikal Products Corp.	Page 4
Cadbury Adams	Page 5
Caterpillar Hydraulics	Page 5
Caterpillar CMO	Page 6
Caterpillar MEC	Page 6
Cintas Corp.	Page 7
Colbert Packaging Corp	Page 7
Consolidated Printing	Page 8
Crest Industries	Page 8
Crown Beverage Packaging Co.	Page 9
Electronic Interconnect	Page 9
Farmland Foods, Inc.	Page 10
GE Healthcare	Page 10
HN Automotive, Inc.	Page 11
Horigan Urban Forest Products, Inc.	Page 11
International Truck & Engine	Page 12
Koppers, Inc.	Page 12
Nalco Company	Page 13
New Holland Apartments	Page 13

Abbott
Continuous Improvement



Abbott in North Chicago implemented projects to reduce fresh water usage, which saved more than three million gallons per year. Isopropyl alcohol is now segregated for reuse instead of going to a water treatment facility.



Abbott also developed a process change that will reduce use of hazardous solvents up to 60%.



Akzo Nobel Non-Stick Coatings
Continuous Improvement

Akzo Nobel Non-Stick Coatings in Des Plaines has a goal to remove all hazardous air pollutants from its coatings. This year all of these solvents were removed from 20 coatings products, cutting emissions more than one ton. An additional reduction of 3/4 of a ton in hazardous emissions is expected in the upcoming year.



**All-Brite Anodizing Co.
Governor's P2 Award**

All-Brite Anodizing Co. in Northlake developed methods to extend the life of its Nickel Seal bath, converted to continuous pretreatment of its acid recycling, and developed a filter system to recycle the tank acid. All-Brite previously dumped a 400 gallon bath of nickel acetate seal solution to wastewater pretreatment weekly. Under the new method, the life of the seal was increased by more than four times. Previously, aluminum concentration levels would gradually build up in the tanks and force All-Brite to completely dump the tanks every six months. The new filtering system avoided dumping the anodizing tanks for over a year. This saves the small company over \$12,000 per year.

All-Brite Anodizing

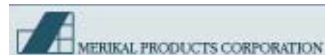
**Amerikal Products Corporation
Governor's P2 Award**

Amerikal Products Corporation in Waukegan developed a biodegradable blanket and roller wash for offset printers.

This product offers a viable alternative to petroleum based washes, which dramatically reduces or eliminates harmful chemicals while offsetting millions of gallons of petroleum each year.



Additionally, Amerikal developed a single step fountain solution to run without alcohol.



**Cadbury Adams
Continuous Improvement**



Cadbury Adams in Rockford developed a non-contact system to provide cooling water to process equipment. Using this system in the three chiller cooling towers



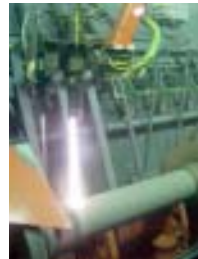
means discharge to the sanitary district has been reduced by more than eight million gallons at a savings of \$13 million dollars.



**Caterpillar Hydraulics
Continuous Improvement**



Caterpillar Inc. Hydraulics and Hydraulic Systems in Joliet implemented a flame sprayed coating for its truck suspension



system, replacing a chroming process. As a result of this change, the plan will reduce hazardous waste by 700,000 pounds annually and save



14 million gallons of water. It also will save the company an estimated \$280,000 per year. This project is the culmination of more than five years work to develop and implement an environmentally friendly alternative to hard chrome plating.



**Caterpillar CMO
Continuous Improvement**



Caterpillar Inc. Cast Metals Organization (CMO) in Mapleton looked at the regulation requiring scrap to be free

of Hazardous Air Pollutants. A team developed a program that informed the Foundry about the scrap suppliers'

ability to provide acceptable product. Mapleton worked with the American Foundry Society to help produce a rule that would not only meet strict quality requirements, but would allow foundries to continue to recycle certain types of scrap and maintain a competitive cost structure.



**Caterpillar MEC
Continuous Improvement**



Caterpillar Inc. Mossville Engine Center (MEC) in Mossville formed a team to look at used oil re-use and

recycle processes that forced MEC to send large amounts of used oil off-site for recycling instead of reclaiming it for re-use on-site. Based on



the team's recommendations, the facility developed two system updates, installed a newer, more effective dehydrator, and an underground pipeline. The resulting benefits

included a total savings of \$816,851 for the year and a reduction of about 208,000 gallons of oil.

**Cintas Corp.
Continuous Improvement**



Cintas Corporation in Rockford is an industrial laundry facility which completed projects aimed at

improving waste-water discharge compliance, reducing the amount of water used and discharged, and reducing the



amount of energy used. Cintas installed a new clarifier and equalization tank for wastewater pretreatment, a wastewater heat re-claimer, a boiler stack economizer, and more efficient washers and dryers. The new process allowed Cintas to reduce freshwater usage by 25%, the volume of wastewater discharged by 29%, and natural gas consumption by over 28%.



**Colbert Packaging Corp.
IL Sustainable Technology Award**



Colbert Packaging Corp. in Lake Forest developed BlisterGuard and EnviroGuard, which replace the traditional plastic clamshell commonly used for



retail display. Both products are pilfer resistant, use more environmentally friendly material, provide ample space for manufacturers' product branding, and are easily

recyclable by consumers. These products reduce or eliminate petroleum-based plastics and are printed using soy-based inks.



**Consolidated Printing
Continuous Improvement**



Consolidated Printing in Chicago replaced its petroleum-based press and blanket washes with more environmentally responsible cleaners made from bean and seed esters. Consolidated reduced its volatile organic carbon emissions by 600 lbs and increased the life of its press rollers, which saved \$7,500 per year. Consolidated also converted to an electronic ordering and



approval system to reduce the printing of hard paper proofs for their clients, and purchased a digital press for smaller orders, which has reduced paper and ink wastes.



**Crest Industries
Governor's P2 Award**

Crest Industries of New Lenox manufactures industrial paints and coatings. Crest implemented several projects, including installing separate lines of unpigmented and pigmented products. Previously, during a batch changeover, up to 100 gallons of solvent were used to clean the filling equipment. Now, with the dedicated line, only 20 to 30



gallons of solvent are required. Crest reduced its hazardous waste generation by over 13,000 gallons per year, reduced its annual cleaning solvent purchases by \$43,000, and saved \$6,000 in disposal costs.

**Crown Beverage Packaging Co.
IL Sustainable Technology Award**



Crown Beverage Packaging Co. in Kankakee improved its spray machines to operate reliably at much lower pressures. A new system also monitors the spray to ensure proper application of the interior can coating. The system has allowed the plant to reduce interior coatings per can and save \$250,000. Hazardous emissions have been reduced by 22.5 tons.



**Electronic Interconnect, Inc.
Governor's P2 Award**



Electronic Interconnect Inc. (EI) in Elk Grove Village is a Printed Circuit Board manufacturer. EI initiated several projects to decrease its chemical consumption and waste generation by a range of 10 to 45% for eight major chemicals. The liquid hazardous waste generated was reduced by 40% in a period of two years, which is almost 40,000 gallons per year. EI also substituted less hazardous chemicals in other processes and eliminated the in-house consumption of lead containing materials.



Farmland Foods Continuous Improvement

Farmland Foods in Monmouth installed two hog coolers



onsite, which were complemented with a large trim blender and electrical switchgear. This resulted in reductions in water, CO₂, and energy use in the meat cooling process. Water usage was cut by 34 million gallons per year, CO₂ use was reduced by 2.7 million lbs, and energy



use dropped by 5.2 million kWh. The projects collectively reduce greenhouse gas emissions

by at least 9.7 lbs annually and saves the company over \$8 million per year.

Other significant benefits include a reduction in product shrinkage and improvements in labor savings.



GE Healthcare Continuous Improvement



GE Healthcare in Arlington Heights is a manufacturer of radiopharmaceuticals that are used in various imaging techniques. GE Healthcare implemented a waste reduction project to reduce the amount of Low Level Waste generated in manufacturing areas. By providing employees with the ability to segregate waste at the point of generation, an annual volume reduction of approximately 34% was realized. An estimated annual savings of \$39,000 in disposal and labor costs was realized by this project.

**HN Automotive, Inc.
Governor's P2 Award**



HN Automotive, Inc. (HNAI) in Effingham initiated a Tooling Management Program which saw a tooling cost decrease of over 30%, a savings of more than \$300,000. It also installed a machine to compress metal chips from machining operations into cylindrical pucks that are sent back to the foundry



to make new castings. HNAI upgraded the compressed air system, reducing annual energy usage by 350,000 kWh, a savings of over \$20,000 per year. A membrane filtration system was installed, which reduced water use over 100,000 gallons per year and saved more than \$30,000.



**Horigan Urban Forest Products, Inc.
Governor's P2 Award**



Horigan Urban Forest Products, Inc. in Glenview is committed to recycling trees from the urban forest. Previously, most trees removed in the Chicago area were chipped for mulch or cut for firewood. Horigan now turns trees cut down on residential, commercial, or public property into kiln-dried lumber for use by homeowners or artisans. By using trees from local sources, Horigan reduces the number of trees removed from the forest, reduces the amount of fuel consumption for transporting lumber, and reduces the amount of carbon released into the atmosphere by sequestering carbon as hardwood lumber.



International Truck & Engine Continuous Improvement



International Truck and Engine in Melrose

Park developed a new coating for the spray coating process for the new engines it manufactures. The prior engines needed to be completely spray-painted. The new coating is water-based, contributing to a reduction of hazardous emissions. Additionally, this coating covers an average of 23 engines per gallon; the old blue coat paint covered only four engines per gallon. The change resulted in annual reductions of paint use by 82%, hazardous emissions by 83%, and paint sludge waste by 12.5%. The facility's efforts have resulted in an annual savings of \$115,000.



Koppers, Inc. Governor's P2 Award



Koppers, Inc. in Stickney implemented pollution prevention projects that reduced its hazardous waste generation by 70%, natural gas usage by 129,000 therms per year, and electricity consumption by 1.96 million kWhr per year. The projects saved \$2.2 million per year.



Koppers added exhausters to its process and a vapor ejector system. The exhausters separate phthalic anhydride from a byproducts stream and return it to the refining process, which increased product yield and reduced hazardous waste. Koppers also implemented a system that minimized the compressed air feed during low production. The reduced airflow has led to a decrease in energy consumption, a reduction in emissions, and an increase in product yield.



**Nalco Company
Continuous Improvement**



Nalco Company in Bedford Park is a specialty chemical company. The plant made improvements to recover more product from its manufacturing process and decrease the use of steam. These changes saved millions of pounds of products, reduced several tons of air emissions, and reduced the overall gas usage at the plant. The overall savings from these projects totaled over \$600,000. Nalco also provides idled buildings to various governmental and local agencies for use in training drills, benefiting emergency response teams and hospitals.

**New Holland Apartments
Governor’s P2 Award**



New Holland Apartments in Danville is a five-story brick structure that was renovated in a way that combines historic



restoration, affordable housing, and green design and technologies. The Holland was



an abandoned building awaiting demolition until Crosspoint Human Services purchased and restored it. A Geothermal unit was installed to provide energy efficient cooling and heating that is individual apartment controlled. Thermal windows and Energy Star rated appliances were installed to save energy.



Period brick was reclaimed from nearby demolitions to replace architectural features long ago removed by former owners.



*Pollution is nothing
but the resources
we are not harvesting.
We allow them to disperse because
we've been ignorant of their value.
--Buckminster Fuller*

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