

## Energy Efficiency & Conservation for Small Businesses

NORBIC's (North Business & Industrial Council) Energy & Environmental Assistance Center (NEEAC) is pleased to announce the receipt of a grant for assistance to small and medium sized businesses on energy efficiency and conservation matters. The awarding organization, the Illinois Clean Energy Community Foundation--an independent nonprofit entity endowed by Commonwealth Edison--focuses on promoting sustained economic development through energy efficiency investments and cost savings. NORBIC is also a nonprofit organization, and has provided technical and professional services throughout the Chicago land area since 1975.

The NEEAC Program has been in operation since 1997, and counts 135 Illinois businesses as clients of its services. Those services have included:

- P2 project implementation
- process audits
- compliance assistance
- technology and information transfer
- product certifications
- other activities in the environmental, energy efficiency, and health & safety fields

Despite its marketing success in the small business community, NEEAC has faced some severe budget constraints during the past 2 years, and its focus has shifted to several industry specific projects for which funding was attainable. Along with resources aimed at the metal casting and printed wire board sectors, this funding from the Foundation should ensure another year of accessibility to NEEAC's services for interested firms.

For more information on NEEAC, contact David Inman at 773-594-9521.

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The Newsletter of the Great Lakes Regional Pollution Prevention Roundtable

## GLRPPR Winter Conference Recap

Exciting new pollution prevention ideas and programs were shared with approximately 100 participants at the Winter 2002 Great Lakes Regional Pollution Prevention Roundtable conference held recently in Chicago. The opening session included an overview of the Great Lakes Binational Toxics Strategy, presented by Gary Gulezian, director of the Great Lakes National Program Office. This program is a joint effort of the U.S. and Canada for the virtual elimination of persistent toxic substances in the Great Lakes basin. Other keynote speakers were Robert Safe, of Safe Technology, Inc., who introduced issues related to mold contamination of buildings, and Natalie Roy, executive director of the National Pollution Prevention Roundtable, who discussed the relation of pollution prevention issues to environmental security.

State and national updates about ongoing and future pollution prevention projects were also presented. Phil Kaplan provided an update on U.S. EPA Region V programs, including Hospitals for a Healthy Environment (see H2E's web site at [www.h2e-online.org](http://www.h2e-online.org)), the presentation of Conservation and Native Landscaping Awards, the recently held National Metal Finishing Strategic Goals Program Summit, National Environmental Performance Track, the Tribal Hotel and Casino Pollution Prevention Workshop, and State/DOD P2 Partnerships. Recently released EPA publications include a waste prevention pocketbook, "Environmental Assistance Services for Small Businesses-A Resource Guide," "Partners for the Environment: Boosting Your Bottom Line," and six new environmentally preferable purchasing guides. For an update on Region V funding opportunities, visit <http://www.glrppr.org/funding/>.

In addition, workgroup sessions were held on the following topics:

- Mercury in auto switches
- Environmental Management Systems
- P2 partnerships
- Regulatory integration
- General mercury issues
- Environmentally Preferable Purchasing
- Local government
- GLRPPR information outreach

GLRPPR members also discussed ideas for the upcoming Summer 2002 GLRPPR Conference, to be held on August 26-28 at the Marriott Eaton Hotel in Toronto, Canada. Presentation outlines from the winter conference are available on the GLRPPR web site at <http://www.glrppr.org/chicago2002/>. Thanks to all the planners, sponsors, and attendees for making this year's winter conference a success.

### What's New at [www.glrppr.org](http://www.glrppr.org):

- Full records associated with sector resource documents
- Subcategories within sector resources for easier navigation
- An online form to add your organization to the contacts database

Send questions, comments or suggestions to Deb Jacobson at [djacobso@wmrc.uiuc.edu](mailto:djacobso@wmrc.uiuc.edu).

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### Contents

Testing for Fungi	2
Flushing out PBTS	2
Computer Recycling	3
C&D Recycling	3
Corporate Reuse	3
Hg Switches	4
P2 Grants	4
Hg in Ohio	5
Regulations Guide	5
P2E2 Demos	6
IL P2 Interns	6
IL Green Gov. Awards	7
NEEAC Update	8

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## New Technology Helps Identify Fungal Contaminants

A new polymerase chain reaction (PCR) based test developed by U.S. EPA's National Exposure Research Laboratory will allow physicians, researchers and epidemiologists to affordably identify and quantify over 100 species of mold and other fungi in a matter of hours. Uncertainty concerning the species of fungi associated with conditions such as "sick building syndrome," and problems associated with testing for contamination, have made it difficult for investigators to take preventive measures or to do research into fungus-related health problems. Until now the identification of fungal contaminants has taken weeks and thousands of dollars to complete due to the expertise and time intensive nature of existing tests. EPA's new test is easier, cheaper, and faster. Battelle's Environmental Technology Commercialization Center facilitated license agreements between EPA and four companies (Aerotech-Kalamar Labs, P&K Microbiology Services, Inc., Forensic Analytical, Inc., and Microbial Insights, Inc.), enabling the companies to commercialize and market the technology.

Cases of mold contamination have been found in the walls of schools, businesses, homes and other structures from all 50 U.S. states. A 1994 Harvard University study found that half of 10,000 homes inspected had mold damage and the potential for mold-related illness. Recent media coverage of the so-called "toxic mold" *Stachybotrys chartarum*, has brought fungal infections to the forefront of public attention. Fungal infections are often severe and progress quickly with few effective treatment remedies. Fungi cause nearly 40% of all deaths from hospital-acquired infections.

Examples of health problems associated with fungal contaminants include:

- Asthma
- Sinusitis
- Hay fever
- "Sick Building Syndrome" (SBS)

The new test can be applied to air and other environmental samples, with the ability to run up to 96 individual sample analyses simultaneously. For more information, contact Joe Jasper, Director of Business Development for Battelle, at (216) 898-6409.

## Erie County Flushes Out PBTs

Erie County, New York has switched to safer urinal blocks in order to eliminate workplace exposure and the release of para-dichlorobenzene (para) into the environment. Para, a persistent bioaccumulative toxic chemical (PBT), is a possible carcinogen that can cause symptoms such as chest pain and poor coordination when large amounts of the deodorant vapors are inhaled. It can also contaminate water supplies when flushed into the sewer system. According to the Agency for Toxic Substances and Disease Registry, para has been found in 13% of the drinking water samples from US surface water and has been detected in trout caught in the Great Lakes.

Funded by a U.S. EPA Region II Pollution Prevention Incentives for States grant, the County conducted a pilot project to test several alternative deodorant blocks. INFORM, a non-profit organization, assisted by identifying and evaluating less toxic alternatives for the pilot. Two sulfonated products made by Puro and Impact and one enzyme-based product made by Nilodor were tested. The products were tested in heavy-traffic areas in several county departments, and the impact of eliminating urinal blocks from a campground was also evaluated.

Overall, the pilot participants were satisfied with the performance of the alternative blocks. The facility manager overseeing the campground has decided to stop using urinal blocks altogether, and the County's current janitorial contract offers only non-para products. The PBT-free deodorizers were determined to cost about \$10 more per dozen, but this cost increase is considered minimal in the context of the County's overall facility operational budget. Based on purchases from the previous year, it is estimated that this change will prevent at least one ton of para from entering the environment annually. In addition, the county is planning to help local schools and towns make the same change.

## Recycling Household Computers

Erie County's (NY) Department of Environment and Planning (DEP) received a grant from the U.S. EPA Great Lakes National Program Office to implement a pilot collection of computers at special collection events. The County issued a request for bid to contract with an approved NYSDEC computer recycling contractor to provide services for the collection, transportation and recycling of household computers. Specifically, components of unusable/unwanted personal computers include: central processing units, monitors, keyboards, printers, scanners, mice and other peripheral equipment directly related to the operation of the computer.

DEP scheduled three collection events to take place one week following scheduled Household Hazardous Waste (HHW) Collection Days. To date, 897 monitors and 860 hard drives have been collected for recycling. Numerous peripherals, such as printers, keyboards and mice, have been collected as well. Approximately 844 households participated in the event.

If you have any questions about the Erie County Computer Recycling Program, feel free to contact Susan Attridge at (716) 858-6339 or e-mail [attridgs@erie.gov](mailto:attridgs@erie.gov)

## Erie County Construction & Demolition (C&D) Debris Recycling

The Erie County, New York, C&D Recycling Project began in 1997 and is funded through a grant from the Empire State Development Corporation's Environmental Management Investment Group (EMIG). The grant goal is to increase C&D debris recycling in Erie County, by diverting 6,400 tons of C&D debris per year from the municipal solid waste stream, thus strengthening local recycling markets. Strong recycling markets not only divert these materials away from local landfills, but also create jobs.

To date the program has diverted over 450,000 tons of recyclable material from local landfills. Local projects that have participated in the program include the Old Buffalo Airport Center demolition project, the New Erie County Courthouse, Town of Amherst ice rink, Erie County youth detention facility demolition and rebuild, Town of Tonawanda grain elevator demolition, The Old Roswell Park Cancer Institute demolition, and the Buffalo Municipal Housing Authority's (BMHA) Commodore Perry project demolition and rebuild project.

Visit the project's web site at <http://www.erie.gov/environment/compliance/candd.phtml>.

## Establishing Corporate Reuse Programs

Minnesota Technical Assistance Program (MnTAP) worked on a 16-month EPA Region V grant in partnership with four corporations and one multi-tenant commercial building to establish internal materials exchange programs/systems. The objective of the project was to assist medium to large corporations in designing and building internal reuse programs that could be sustained and supported over the long-term. The grant report's executive summary can be found on the MnTAP web site, [www.mntap.umn.edu](http://www.mntap.umn.edu).

To discuss the project outcomes and experiences or to obtain a full copy of the report contact Barb Nesheim via e-mail [neshe005@umn.edu](mailto:neshe005@umn.edu) or by phone at 612-624-4699.

### The Fine Print

LINK is a free quarterly publication of the Great Lakes Regional Pollution Prevention Roundtable. For information about subscribing please contact the editor or see our web site at: [www.glrppr.org](http://www.glrppr.org)

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## Mercury Switch Reduction in Wisconsin & Minnesota

In August 2001, the City of Superior, Wisconsin initiated a program with all five of its new car dealerships to replace mercury convenience light switches in new and used cars before selling them to the public. Staff of the Superior Wastewater Treatment Plant spoke with dealers about the environmental and health concerns associated with mercury, and the dealers readily agreed to participate in the program. The partners include Kari Toyota, DeVinck's Inc., Larson Chevrolet-Olds, Benna Ford Superior, and Kapus-Erickson Inc. Each dealer was given a start-up kit in exchange for displaying posters, cooperating with advertising, and agreeing to do replacements at no cost to the customer. To date, the program has managed to capture and recycle about 55 mercury switches.

This public-private partnership sparked a flurry of interest and action in Superior and other neighboring communities. For example, Superior agreed to inspect and replace all mercury-containing switches in its city fleet, resulting in the removal of roughly 70 mercury switches. More recently, the Douglas County Garage, the City of Ashland, and the Northern Wisconsin State Patrol all agreed to replace mercury switches in their vehicles.

The mercury switch program was promoted in November as part of the "National Switch the Switch Day" sponsored by the Clean Car Campaign. Both local newspapers ran articles on the front page. The next day, Superior received a call from a forklift manufacturer in Duluth, MN wanting to know where they could get non-mercury switches. Now, the switches in their forklifts are mercury-free. Intending to send a clear message to automakers to do the same, the City of Ashland recently solicited bids for 2002 vehicles and requested mercury-free vehicles. Ashland modeled its purchasing specifications on bid language used by Minnesota just a few months ago.

The State of Minnesota's 2002 Motor Vehicle Request For Bids (RFB) required disclosure of mercury components in vehicles and stated that Minnesota intends to purchase mercury-free vehicles within three years. As a result, GM disclosed that two of the vehicles available through the new state contract, the Savana and the Express, contained mercury switches in the underhood light. GM subsequently announced that all mercury convenience lighting switch applications were discontinued as of 1/15/02. As recently as November, GM told the New York Attorney General's office that they would continue to use the mercury switches in these models through the end of 2002 production. It is likely that Minnesota's bid language increased the pressure on GM to remove the switches before the end of the model year. Furthermore, Minnesota has begun replacing mercury switches in its state fleet. About 100 cars that recently went to auction were checked, leading to the replacement of about 20 mercury switches.

To learn more about Superior's partnership with auto dealers or to obtain a copy of the city's start-up kit, contact Jane Schlichting at 715-394-0392 or [researcher1@ci.superior.wi.us](mailto:researcher1@ci.superior.wi.us). To obtain a copy of Minnesota's purchasing specifications or the manufacturers' disclosure statements, contact Kelly Luck at 612-278-7117 or John Gilkeson at 651-215-0199.

## Regional Pollution Prevention Grant Program

In 2001, almost \$400,000 in funding went to five grantees through a Michigan Department of Environmental Quality (DEQ) program to fund regional pollution prevention projects resulting in measurable reductions in waste generation. Grants were targeted at regions of the state with environmentally sensitive natural resources, such as the Lake Superior basin and Lake St. Clair.

Grants were awarded for:

- technical assistance to reduce critical pollutants from broad-spectrum insecticides
- recovery of mercury, lead, metals, and plastics from computers and electronics
- a fish waste composting project
- technical assistance to businesses to reduce storm water impacts of critical pollutants to Lake Superior
- technical assistance to boater, marina, and salvage yard operators to reduce critical pollutants to waterways.

## Reducing Mercury in Ohio's Lake Erie Basin

Ohio EPA is working with other state departments, as well as other Great Lakes states, to ensure that national and regional mercury reduction information is available to all Ohioans. Mercury reduction is an issue particularly important in Ohio due to the statewide fish consumption advisory for sensitive populations, women of childbearing age, and children aged six or younger.

Examples of efforts to promote mercury reduction in Ohio include:

- The Ohio EPA convinced 20 of 25 solid waste management districts to distribute mercury reduction information during household hazardous waste collection days.
- A web page describing the environmental impacts of mercury and other PBTs, as well as information on their reduction: [http://www.epa.state.oh.us/opp/mercury\\_pbt.html](http://www.epa.state.oh.us/opp/mercury_pbt.html).
- The Ohio Mercury Reduction Group provided mercury reduction information to schoolteachers, developed fact sheets, and worked to promote Bowling Green State University's mercury collection program.
- The promotion of thermostat recycling efforts by the Ohio EPA Office of Pollution Prevention, Bowling Green State University, and the Thermostat Recycling Corporation among contractors and consumers in the Lake Erie basin.
- Fact sheets designed to raise mercury awareness and to promote pollution prevention among Lake Erie basin companies have been completed by Ohio EPA. Eight to 15 additional fact sheets will be developed this year focusing on PBT reduction.
- Technical assistance expertise was offered to over 800 Ohio companies in the Lake Erie basin that generate both PBT chemicals and hazardous waste.

To learn more about mercury reduction and other P2 projects, contact the Ohio EPA Office of Pollution Prevention at 614-644-3469 or visit their web site at <http://www.epa.state.oh.us/opp/>.

## Coming in June 2002 . . . Michigan Manufacturers' Guide to Environmental, Safety, and Health Regulations – Second Edition

The Michigan Clean Air Assistance Program is updating the "Michigan Manufacturers' Guide to Environmental and Safety and Health Regulations." The popular publication, a joint product of the Michigan Departments of Environmental Quality and Consumer and Industry Services, increases the reader's understanding of state and federal regulations affecting daily manufacturing operations. Over 3,000 copies of the First Edition were distributed to Michigan manufacturers.

Workshops are being offered in June 2002 and attendees will be the first to receive copies of the Second Edition. The workshops will provide a "real world" perspective and present regulations in a manner that coincides with manufacturing activities.

Dates and locations for the workshops are as follows:

June 11, 2002	Premiere Center, Iron Mountain
June 13, 2002	Gaylord Inn (formerly Holiday Inn), Gaylord
June 18, 2002	Radisson Inn, Kalamazoo
June 19, 2002	Hotel Baronette, Novi
June 24, 2002	Bay Valley Hotel & Resort, Bay City
June 25, 2002	Sheraton Inn, Ann Arbor
June 27, 2002	Holiday Inn Muskegon Harbor, Muskegon

For more information, contact the Environmental Assistance Center at 800-662-9278. Also, don't forget to check the GLRPPR calendar (<http://www.glrppr.org/calendar/bymonth.cfm>) for information on other upcoming events sponsored by MI DEQ and other partner organizations.

## Michigan DEQ's P2E2 Demonstration Program

The Michigan Department of Environmental Quality (DEQ) Pollution Prevention and Energy Efficiency Technology (P2E2) program was an initiative to demonstrate effective P2 and E2 technologies and provide implementation assistance to Michigan's small businesses. The program emphasized on-site technology demonstration projects to encourage others in the same industrial sector to adopt the technology. 25,000 dollars in matching grants were awarded to three Michigan companies to cover equipment and installation costs, data collection, evaluation, and conduct showcase technology demonstration workshops.

Company One received funding to replace a conventional high caustic cleaning process used to remove oil and grease from metal parts prior to electroplating. A single, interconnected, microbial system replaced the conventional cleaning system on three separate plating lines. Final results based on a six-week period of data collection identified a 125,000 hundred CCF (hundred cubic feet) projected annual reduction in natural gas and a 25 percent reduction in the cost for cleaning chemicals. Water usage and wastewater and sludge generation appeared to be significantly reduced as well.

Company Two received funding to integrate omni-directional, ultrasonic cleaning technology within their metal parts cleaning process prior to electroplating. After equipment installation, the company successfully eliminated a vapor degreasing step, lowered bath temperatures by up to 50 degrees Fahrenheit, reduced cleaning times by 50 percent or more, and reduced water and chemical usage by 67 percent and 80 percent, respectively. The company's annual natural gas savings for the project is estimated to be about 8,100 CCF.

Company Three received funding to implement a closed-loop water recycling system into their plastic extrusion operation. The new system has decreased water usage by more than 99 percent and electrical usage by about nine percent, and decreased defective product generation by 60 percent and overall production run times by 30 percent. Cost savings from implementing this project have been more than \$3,000 per month.

## Illinois P2 Intern Program

Each year, Illinois EPA's Office of Pollution Prevention recruits upper-level university students to work on pollution prevention (P2) projects during the summer. Students primarily work at manufacturing facilities, but may also be placed at small business development centers, trade associations, local government facilities, environmental groups and military installations. The following is an abstract for one of the 2001 P2 intern projects:

### Krupp Gerlach Company Danville, Illinois

Krupp Gerlach is a multinational company that manufactures crankshafts for the Big 3 automakers as well as John Deere and Caterpillar. The intern focused on reducing the amount of synthetic coolant and sulfuric acid sent off-site for disposal.

**Results:** The intern determined that evaporation technology could reduce the disposal of synthetic coolant by 90%. Purchasing and maintaining a 60,000-gallon evaporation system, can save the company over \$153,000 annually in coolant purchase, reduce water consumption, and reduce disposal costs. The payback period would be 4 months.

The 4,000-gallon sulfuric acid pickling tank is discarded twice every month. The intern found that diffusion dialysis could reduce the amount of acid/water mixture sent off-site by 90%. It would cost \$42,000 to install this system but has the potential to save over \$47,000 per year.

For more information on the IL EPA P2 Intern Program, please contact Rick Reese at [Richard.Reese@epa.state.il.us](mailto:Richard.Reese@epa.state.il.us) or 217/524-4335. Complete abstracts for P2 intern projects from the years 1996 through 2001 can be found at <http://www.epa.state.il.us/p2/internships/projects/index.html>.

## Illinois Green Government Awards

Illinois EPA Director Renee Cipriano recently presented the first Green Government Awards to the IL Departments of Agriculture, Central Management Services, Corrections, Lottery, Natural Resources, Public Aid, and the Historic Preservation Society. The agencies received the awards for their leadership roles in carrying out the Governor George Ryan's Green Illinois Executive Order. In 2000, Governor Ryan signed an executive order creating the Illinois Green Government Coordinating Council and directing executive state government agencies to work together to promote environmental stewardship in their operations and facilities. The Council helps agencies under the Governor incorporate more environmentally sustainable practices into their day-to-day functions. A second Executive Order issued in December 2001 expanded the initiative.

Some examples of the environmental practices recognized are:

- Purchasing environmentally friendly paints low in volatile organic compound emissions
- Purchasing carpet made from recycled products
- Using recycled water from the local sanitary district on various plantings around the grounds, racetrack maintenance and for dust control at the State Fair
- Using insect predators to control exotic species instead of chemical herbicides and pesticides
- Rotating tires on fleet vehicles every 6700-7000 miles to extend the tire life
- Adding specifications on energy efficiency in building lease solicitations
- Purchasing almost \$3 million worth of recycled content products in the year 2000
- Using low-flow plumbing fixtures where possible
- A program to use lenses to improve the illumination of high efficiency fluorescent light bulbs
- Regularly cleaning cooling towers and tuning up boilers to improve efficiency and minimize future maintenance costs
- Identifying and consolidating multiple mailings to clients and service providers
- An electronic address verification system that will achieve a 67 % reduction in the use of postcards and envelopes, and an automated address change service to eliminate change of address postcards
- Encouraging employees to use washable cups and mugs
- Converting from a liquid spray paint system to a powder coat finish process for metal furniture manufacturing at a correctional center
- Centralizing distribution of cleaning materials at correctional facilities to ensure better control of quantities used

## IL P2 Intern to Participate in "Gateway Initiative"

U.S. EPA Regions V and VII have joined forces to address pollution issues in the Greater St. Louis metropolitan area. The project, called "The Gateway Initiative," is a community-based approach to environmental protection that coordinates federal, state, and local resources within the Greater St. Louis metropolitan area (Illinois and Missouri). The goal is to reduce the risk to human health, protect natural resources, secure real environmental improvement in a timely and efficient manner, and build sustainable community involvement in local environmental issues.

As part of this Initiative, the IL EPA will place a P2 intern at St. Mary's Hospital in East St. Louis during the summer of 2002. The intern will address waste reduction and P2 issues. Specific projects the intern will undertake are investigating and making recommendations on: facility wide recycling; energy efficiency; and alternatives to the products/materials the hospital uses that contain 17 of the persistent bio-accumulative toxic chemicals identified by the U.S. EPA.

For more information, please contact Rick Reese at [Richard.Reese@epa.state.il.us](mailto:Richard.Reese@epa.state.il.us) or 217/524-4335.