

IDEM

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Office of Pollution Prevention &  
Technical Assistance  
100 North Senate Avenue  
Indianapolis, IN 46204-2251

# 2005 Indiana Pollution Prevention Annual Report

*Working to eliminate the  
barriers to change!*

March 27, 2006

Dear Hoosiers:

I am pleased to submit IDEM's 2005 Annual Report on Pollution Prevention efforts in Indiana as required by I.C. 13-27-6. This report describes the state's pollution prevention activities to the Indiana General Assembly each year. These activities are vast in scope and powerful in their impact on Indiana's industries, citizens, economy and most of all, our environment.

A draft version of this report was released on February 1, 2006 and made available for public comment for 45 days. This final report incorporates the public comments received during this period. This report describes the initiatives underway in IDEM's Office of Pollution Prevention & Technical Assistance and results of their 2005 efforts.

Though 2005 was a year of change for IDEM, the pollution prevention staff took this opportunity to make the most of new management interests. From increased dialogue with regulatory offices to new pollution prevention programs offering incentives for going above and beyond regulations, you will see pollution prevention efforts have increased and are focused on eliminating barriers to change and improving Indiana's environment through voluntary initiatives.

Each year, we strive to identify measures of success of Indiana's pollution prevention efforts. You will notice more data provided in this year's report. We look forward to developing new initiatives and programs to prevent pollution and mechanisms to provide additional data demonstrating pollution prevention success and improvements to the environment in future years. I hope you are as impressed as I am with the positive impact pollution prevention has on making Indiana a cleaner, healthier place for all Hoosiers.

Sincerely,



Thomas W. Easterly  
Commissioner

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## **Introduction – Working to Eliminate Barriers to Change!**

2005 has been a year of change and growth for Indiana's Pollution Prevention Program. With a new administration at IDEM came new leadership for the Office of Pollution Prevention and Technical Assistance, new pollution prevention initiatives, and new pollution prevention staff. 2005 grant money from federal EPA is allowing Indiana's Pollution Prevention Program to expand its regulatory integration efforts, begin new pollution prevention training programs, and plan for new ways to promote our services to prospective customers. Support from the new Assistant Commissioner has led to development of a state environmental performance-based program intended to produce positive results for the environment, IDEM, and Indiana regulated entities. These are just a few of the changes the Pollution Prevention Program has seen in 2005. Details of these changes are highlighted in the next section of this report.

Also in the report, you will find details on our on-going efforts to promote pollution prevention statewide to various sectors. The success of these initiatives has led to reductions in emissions to the air, reductions in waste generated, and reductions in pollutants releases to Indiana's lakes, rivers and streams. Through continued partnerships with the Clean Manufacturing Technology and Safe Materials Institute and the Indiana Partners for Pollution Prevention, 2005 was another successful year for many Indiana businesses looking for opportunities to prevent pollution.

## **Chapter 1: IDEM's Pollution Prevention Initiatives**

### **2005 Pollution Prevention Highlights**

#### **New Assistant Commissioner**

In April 2005, a new assistant commissioner was appointed to lead the Indiana Department of Environmental Management's Office of Pollution Prevention and Technical Assistance (OPPTA). Dan Murray started his position as a familiar face to OPPTA. He has shared a passion for pollution prevention by serving three years as the Director of the Partner's for Pollution Prevention Executive Steering Committee, working regularly with OPPTA to develop outreach initiatives through the Partners to encourage more Indiana businesses to be environmentally conscious.

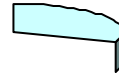
Previous to joining IDEM, Mr. Murray worked for six years as a Corporate Director of Environment, Health and Safety at an Indiana manufacturing facility and nine years as an environmental, health, and safety management consultant to a wide array of industries in the Midwest. He served for five years on the Indiana Governor's Clean Manufacturing Technology Board and was the Vice Chair of that board prior to joining IDEM.

Under his leadership, OPPTA continues its successful efforts to promote pollution prevention, provide confidential compliance assistance, educate Hoosier citizens about environmental health, and offer grants and loans to promote recycling programs. During 2005, new initiatives have taken place in each of these areas, and OPPTA continues to strive to provide the resources Indiana needs to be a safe and healthy place to live and a good place to do business.

#### **New Pollution Prevention Staff**

During 2005, the hiring freeze was finally lifted, allowing the Pollution Prevention Program to hire back positions that had been empty for a year or more. A much needed environmental engineer was hired to provide technical expertise through review of project proposals, on-site pollution prevention opportunity

IDEM's Pollution Prevention Program received \$260,500 in federal grant dollars in 2005. Currently the P2 Program has four federal grants totaling \$341,645. In addition, the P2 Program continues to manage a pollution prevention memorandum of agreement between IDEM's Office of



*- Excellent information and very well organized! – I enjoyed this well-rounded training. - I thought I knew a lot about mercury before, but I learned so much! – Could you come present to our group? – survey responses from various workshop attendees*

community about the effects of mercury on the environment. 87% of attendees plan to use the materials for employee training on mercury issues. The outreach materials can be found on the IDEM Web site at [www.in.gov/idem/mercury/potw/](http://www.in.gov/idem/mercury/potw/)

### **Supplemental Environmental Project Assistance**

When a facility ends up in enforcement for violations related to noncompliance with IDEM regulations, an opportunity exists in many instances to work closely with the entity to implement supplemental environmental projects (SEPs). Not only do these projects benefit the environment, but they can also benefit the company, resulting in a lower fine and a project that can prove profitable for the company in the long run.

The Pollution Prevention Program has teamed up with the Office of Enforcement to encourage the consideration of SEPs in more enforcement cases. We now help to evaluate SEP proposals, help facilities develop project proposals, and evaluate projects for pollution prevention qualification. Those proposals that meet the qualifications for pollution prevention are also eligible for a larger penalty offset than other SEPs.

The Pollution Prevention Program also developed a list of pre-approved SEP projects that will lead to faster approval and implementation of projects with anticipation of additional projects being proposed as a result. For more information on pollution prevention SEPs, refer to the IDEM Web site at [www.in.gov/idem/oppta/p2/sep.html](http://www.in.gov/idem/oppta/p2/sep.html).

### **Performance Based Program Development**

In the September Indiana Register, IDEM initiated three parallel rulemakings (Offices of Air Quality, Land Quality, and Water Quality) to begin looking at how an environmental performance based program would benefit Indiana. Performanc9(r)-1.1i6(o)-8.6-4.1ac(d)1(d)-6(i)-6.3(t)-6(004 Tor011 Twa)-5.5(d1 Tf10.i9n48 Tck(t)3.1to)-8.6( b

Additionally, the standardization that CDX brings will al

Currently 48 Hoosier child care facilities are participating in the program, protecting an estimated 3,250 children from environmental threats.



in exchange for implementing environmentally beneficial actions and improving the quality of life for local residents. The CLEAN program encourages local governments to create a "Quality of Life Plan," the municipal equivalent to an environmental management system and to implement pollution prevention activities that correspond with individual community goals.

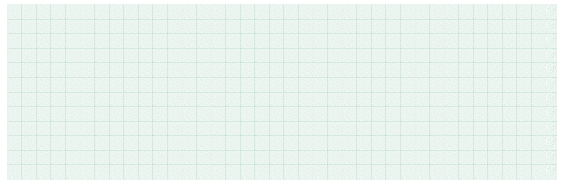
During 2005, the Pollution Prevention Program worked closely with the three CLEAN pilot communities of



To ensure the on-going commitment by various state agencies to provide financial incentives to CLEAN communities, an MOU was developed and signed. An electronic listserv maintained by IDEM provides information concerning funding opportunities and pollution prevention techniques, and the Indiana CLEAN Community Challenge website contains supplementary resources for local governments including a recently added sample quality of life plan. In addition, a contractor has been hired to research and develop a web-based database that will guide communities through identifying common aspect7.4(po5.4(ddei4(ddeg6.5(nt)-)76(l)-6.8(m)--6.8

In 2005, IDEM assisted 20 schools in cleaning out labs and properly disposing of unused chemicals.



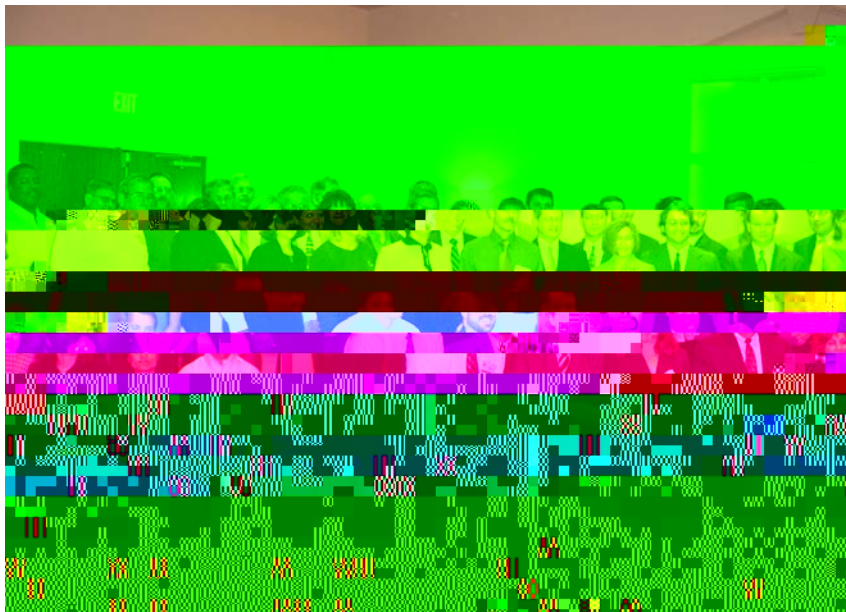


## **Enviroschools**

IDEM was awarded a grant to develop and implement Enviroschools, an Environmental Management System (EMS) approach to facility management for schools. Typically, an EMS program is used by industry to provide a structured approach for managing environmental and regulatory responsibilities to improve overall environmental performance. Enviroschools has been designed to provide a resource that schools can use to identify and address environmental and health and safety issues at their schools.

IDEM has developed the framework for the web-site which includes a survey tool for schools to audit and evaluate the environmental condition of their buildings and classrooms and helps to identify potential areas of concern, measures to mitigate environmental issues, and additional projects which can be undertaken to become an environmentally green school. Several school districts are currently reviewing the information provided on the site and evaluating the ease and user-friendliness of the survey tool. IDEM intends to make revisions to the site based on their feedback and make the entire site available for pilot testing by Spring 2006.

## **Governor's Awards for Environmental Excellence Program**



## 2005 Pollution Prevention/Source Reduction Award Winners

### **Don's DCI Drycleaning – Evansville**

Don's DCI Drycleaning has converted its drycleaning operations from a hazardous dry cleaning solvent, called perchloroethylene, to a non-hazardous, environmentally friendly-solvent, by the name of Pure Dry®. Pure Dry® is a special

**Madison Chemical Co., Inc. - Madison**

In March of 2000, Madison Chemical formally adopted the ISO 14001 standard for EMS. Madison Chemical knows that pollution prevention can pay rich dividends, as they continuously strive to replace regulated materials with non-regulated materials in their formulas. In the past five years, Madison Chemical has: reduced their usage of SARA 313 reportable materials by 42 percent, replaced an average of 50,000 pounds per year of glycol ethers with an advanced surfactant technology; reduced their solid waste generation by 25 percent per pound produced, reduced their electric consumption by 7 percent; switched from being classified as a small quantity generator of hazardous waste to a conditionally exempt small quantity generator, and improved their Material Safety Data Sheet to provide more information about products to both their customers and emergency responders.

**Styline Industries, Inc./OFS – Huntingburg**

Styline's Environmental Management System (EMS) is entrenched into every aspect of its daily operations, with an emphasis both on the facility's performance as well as community leadership. Vendors and staff alike are expected to observe the company's reduced idling policy, which aims to reduce harmful tailpipe emissions. The company is a local leader in anti-idling at schools, and is work2d prn vredct o-12.6( – l8(ct s,.1(O)1 pa-9.9(s8)-6s(an)3.8)-2.5

### **Utilimaster Corporation – Wakarusa**

Utilimaster Corporation, manufactures custom walk-in vans and truck bodies for the likes of Federal Express, UPS, Frito-Lay and the U.S. Postal Service. An innovative and energy efficient, microturbine-based, combined heat and power (CHP) system was installed at their truck washing and painting facility. A natural gas-fired microturbine is used to produce electricity. The "waste" heat is utilized in several ways: to regenerate a desiccant drying system for the washed trucks; provide heat for drying washed parts; curing paint in the small parts line; and also providing additional plant space heating. The system generates 70 kW of electricity and provides 473,000 Btu/hr with an input of 9 therms/hr of natural gas. It was placed in service June of 2004 and has shown improvements in product quality, decreased emissions and reduced energy costs. Previous CHP projects have either incorporated a fluid loop or used direct exhaust to deliver process heat. This system uses heat captured in a fluid loop and redirects the remaining heat from the post-turbine heat exchanger exhaust to a second process, all operator controlled by an integrated control system. This system is Indiana's first CHP

application utilizing an Ingersoll-Rand Powerworks microturbine to regenerate a desiccant drying system and was designed with the assistance of NiSource Energy Technologies (NET).

### **Stripco, Inc. – Mishawaka**

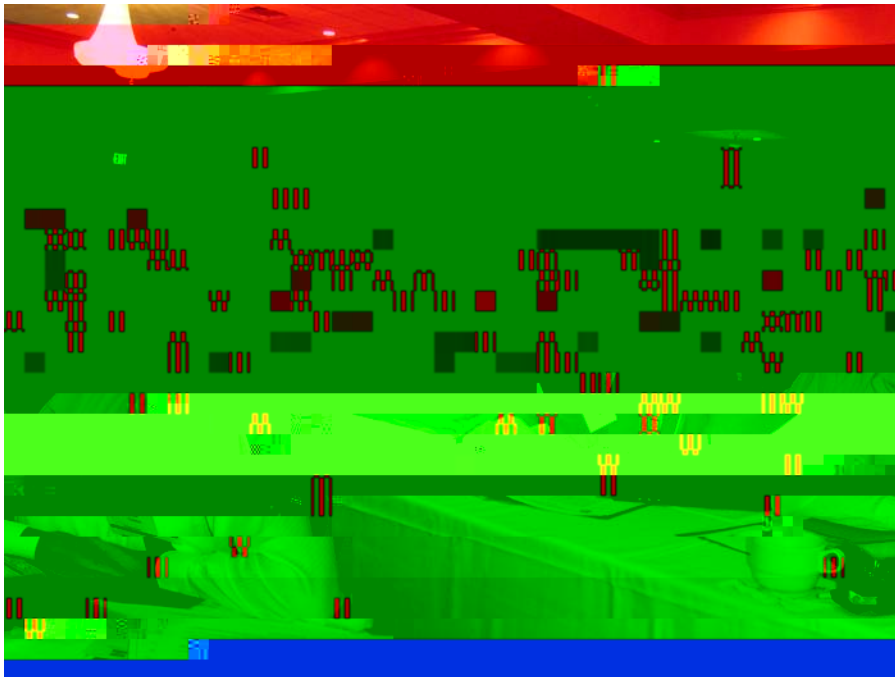
An innovative and energy efficient, microturbine-based, combined heat and power system was installed at the Stripco steel processing plant in Osceola, Indiana with the assistance of NiSource Energy Technologies (NET). Natural gas is used to produce electricity and the "waste" heat is utilized; to heat rolling oil for cold rolled steel processing; supply space heating for the building; and, provide domestic hot water for maintenance cleaning. The system can generate 60kW of electricity and provide 375,000 Btu/hr with an input of 8 therms/hr of natural gas. The system has proven itself to be an environmentally sound combined heat and power project, offering benefits in product quality, waste reduction and health and safety. It has been in service since December of 2002, and since then has generated

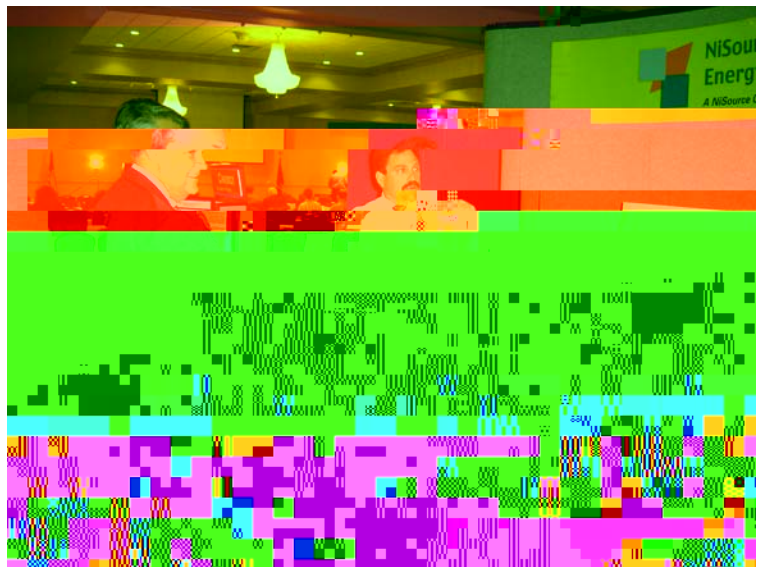
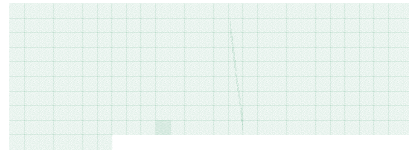
Partners for Change, five of which have earned H2E's highest level of achievement, the Making Medicine Mercury Free Award.

OPPTA and Indiana's H2E Partners are working towards the goals set forth in a Memorandum of Understanding between the U.S. Environmental Protection Agency and the American Hospital Association. The goals include virtual elimination of mercury wastes, overall waste reduction, and pollution prevention through the reduction of hazardous materials in health care facilities. OPPTA is encouraging all Indiana health care facilities to become H2E Partners for Change. These Indi



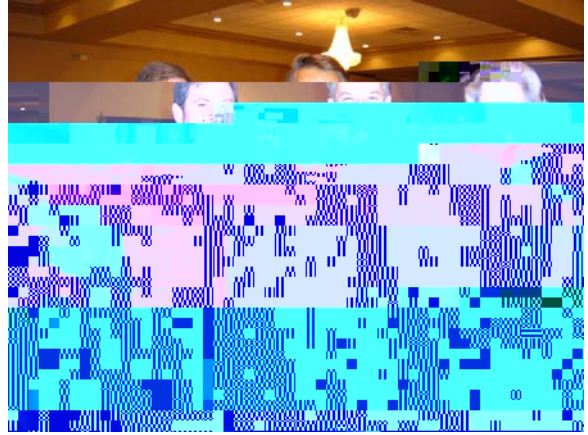








**Clean Manufacturing Technology Board  
and Institute**



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## Chapter 2: Quantitative Assessment of Statewide Progress

During 2005, measurement of statewide progress related to pollution prevention efforts has become an increasingly national effort to promote results and members' achievements and secure future funds. OPPTA began working closely the Great Lakes Regional Pollution Prevention Roundtable to develop a tool to track the results of pollution prevention assistance provided by state programs. Once finalized, this tool will agglomerate? data from this region and be used to help develop a national pollution prevention results report that will be provided to congress.

### Voluntary Pollution Prevention Reporting

Until this tool is available, OPPTA continues to rely on other sources of information to track pollution prevention results. In 2005, OPPTA worked with the [Partners for Pollution Prevention](#) to revise their annual report to include specific pollution prevention results. In 2005, the Indiana Partners for Pollution Prevention reported the following reductions as a result of voluntary pollution prevention and recycling programs:

#### Reductions made by the Partners for Pollution Prevention in 2004

Indiana's large quantity generators of hazardous waste are required to report their waste data to IDEM biannually. 2003 data is the most recent. Through

public to access toxic release data from facilities throughout the state. The most current data available is for 2003, due to the reporting schedule for the TRI program.

*\*\*Other Industries include: Bulk Terminal, Solvent Recovery Facilities and RCRA Treatment Storage and Disposal Facilities. Together, these other sources comprise about 1% of Indiana's total releases.*

#### Overview and Trends in Toxic Chemical Releases

Reporting year 2003 data is the most recent data available. 1,026 individual facilities reported 189 different chemicals to Indiana's TRI for 2003. A total of 136.3





or 0.2 million pounds. Polycyclic aromatic compounds increased 0.4 million pounds due to the remediation occurring at U.S.S. Gary Works. Chromium compounds increased 0.3 million pounds.





## Chapter 4: Recommendations

IDEM continues to make progress implementing the Indiana Industrial Pollution Prevention and Safe Materials Act. As indicated in the previous section, several barriers exist, yet the program continues to make progress and produce results. At this time, IDEM sees no need for additional legislation in this area.

Additional funding would provide the necessary resources to increase pollution prevention efforts statewide. Pollution prevention measurement, on-going pollution prevention training, pollution prevention grants to proactive businesses, and industry-specific outreach and on-site technical assistance are just a few examples of programs that could be expanded if given the resources to do so. These efforts, should funding become available, will benefit businesses, government, students and citizens. Those businesses embracing a pollution prevention or "clean manufacturing" philosophy have proven to be efficient, profitable businesses, successfully weathering recent economic downturns. An increase in the number of such businesses would assist Indiana in achieving employment and productivity goals.

In addition, continued research is needed a so ddv-4.6(e)-10.5(dl)-7( pc)-5(o)-1.39ns isdst edf-8.2( f)-1.4(d)-5(oa)-e d qu-

## **APPENDIX: IDEM's Pollution Prevention Resources**

### Annual Reports

IDEM's Pollution Prevention Annual Reports (1999 – 2005 on web)  
[www.in.gov/idem/oppta/p2/reports/](http://www.in.gov/idem/oppta/p2/reports/)

### P2 Guides, Brochures, and Educational Materials

Clean Manufacturing & Pollution Prevention Opportunity Self Assessment (2004)  
[www.in.gov/idem/oppta/p2/assessments/self.pdf](http://www.in.gov/idem/oppta/p2/assessments/self.pdf)

### Pollution Prevention Guides for (2004):

Structural Wood Products Mfg. [www.in.gov/idem/oppta/p2/assessments/wood.pdf](http://www.in.gov/idem/oppta/p2/assessments/wood.pdf)

Miscellaneous Chemical Mfg. [www.in.gov/idem/oppta/p2/assessments/chemical.pdf](http://www.in.gov/idem/oppta/p2/assessments/chemical.pdf)

Plastic and Rubber Product Mfg. [www.in.gov/idem/oppta/p2/assessments/plastics.pdf](http://www.in.gov/idem/oppta/p2/assessments/plastics.pdf)

Metal Product Mfg. [www.in.gov/idem/oppta/p2/assessments/metal.pdf](http://www.in.gov/idem/oppta/p2/assessments/metal.pdf)

Transportation and Misc. Product Mfg. [www.in.gov/idem/oppta/p2/assessments/transportation.pdf](http://www.in.gov/idem/oppta/p2/assessments/transportation.pdf)

Economic and Environmental Pollution Prevention Analysis Spreadsheet (2004)  
[www.ecn.purdue.edu/CMTI/EconAnalysis/spreadsheet.xls](http://www.ecn.purdue.edu/CMTI/EconAnalysis/spreadsheet.xls)

Pollution Prevention: Indiana's Preferred Alternative for Environmental Protection and Economic Success (2001) [www.in.gov/idem/oppta/p2/p2brochure.pdf](http://www.in.gov/idem/oppta/p2/p2brochure.pdf)

Planning for Profits: A Guide to Pollution Prevention for Indiana Businesses (2001)  
[www.in.gov/idem/oppta/p2/p2guide.pdf](http://www.in.gov/idem/oppta/p2/p2guide.pdf)

### Pollution Prevention Resources for Reducing Mercury Pollution

POTW Mercury Fact Sheet  
[www.in.gov/idem/mercury/potw/potw.html](http://www.in.gov/idem/mercury/potw/potw.html)

Mercury Checklist for Sewage Treatment Plants: What Items Contain Mercury at Your Facility?  
[www.in.gov/idem/mercury/potw/Checklist\\_POTW.DOC](http://www.in.gov/idem/mercury/potw/Checklist_POTW.DOC)

Dental Office Mercury Fact Sheet  
[www.in.gov/idem/mercury/potw/dental.html](http://www.in.gov/idem/mercury/potw/dental.html)

Auto Salvage Mercury Switch Poster call OPPTA at 317/233-8154

Stop: Use Your Brain Before Pouring Anything Down the Drain Poster call OPPTA at 317/233-8154

Use Your Brain Lab Chemical Poster call OPPTA at 317/233-8154

Health Care Facilities Mercury Fact Sheet  
[www.in.gov/idem/mercury/potw/health.html](http://www.in.gov/idem/mercury/potw/health.html)

College and University Mercury Fact Sheet  
[www.in.gov/idem/mercury/potw/college\\_univer.html](http://www.in.gov/idem/mercury/potw/college_univer.html)

General Industry Mercury Fact Sheet  
[www.in.gov/idem/mercury/potw/industry.html](http://www.in.gov/idem/mercury/potw/industry.html)

Mercury Checklist: What Items Contain Mercury at Your Facility?  
[www.in.gov/idem/mercury/potw/Checklist\\_general.DOC](http://www.in.gov/idem/mercury/potw/Checklist_general.DOC)

#### Pollution Prevention Recognition Programs

CLEAN Community Challenge (2004) [www.in.gov/idem/oppta/clean/](http://www.in.gov/idem/oppta/clean/)

Governor's Awards for Environmental Excellence [www.in.gov/idem/oppta/govawards/](http://www.in.gov/idem/oppta/govawards/)

Governor's Toxic Reduction Challenge Final Report (2004)  
[www.in.gov/idem/oppta/p2/toxicchallenge/](http://www.in.gov/idem/oppta/p2/toxicchallenge/)

Partners for Pollution Prevention [www.in.gov/idem/oppta/p2/partners/](http://www.in.gov/idem/oppta/p2/partners/) Brochure call OPPTA at 317/233-8154

#### Materials Exchange

Indiana Materials Exchange [www.in.gov/idem/imx/](http://www.in.gov/idem/imx/)

#### Reports and Programs