

Governor's Pollution Prevention Award, 1996 Recipient **City of Cincinnati**

The City of Cincinnati has demonstrated strong pollution prevention programs which show that pollution prevention is good for businesses' economic growth as well as for the environment.

Governor George V. Voinovich

The Governor's Awards for Outstanding Achievement in Pollution Prevention have been presented since 1986. The City of Cincinnati, Office of Environmental Management was one of eight recipients to receive the Award in 1996. These awards recognize outstanding commitment to improve Ohio's environment through pollution prevention. Evaluation criteria for the awards include: the reduction of waste at the source, recycling or recovery of materials, cost-effectiveness, ability of the program to serve as a model for others, and effectiveness in promoting prevention as the preferred long-term approach.

What is Pollution Prevention?

Pollution prevention (P2) is the use of source reduction techniques to reduce risk to public health, safety, welfare and the environment and, as a second preference, the use of environmentally sound recycling to achieve these same goals.

Pollution prevention avoids cross media transfer (of wastes and/or pollutants) and is multi-media in scope, addressing all waste and environmental releases to the air, water and land.

City of Cincinnati, Office of Environmental Management

Cincinnati's Office of Environmental Management (OEM) created and implemented a comprehensive pollution prevention program that made significant progress in integrating pollution prevention policies into city management. The program is committed to long-term pollution prevention strategies in internal municipal operations and for the Cincinnati community.

Cincinnati's Office of Environmental Management was recognized for working with the Department of Public Works' Highway Maintenance Division to convert from solvent-based paints to waterborne paints for highway line striping. This eliminated the use of harmful



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cleaning solvents and the generation of hazardous waste. The OEM worked with the Institute of Advanced Manufacturing Sciences to complete pollution prevention assessments at 10 local businesses. The OEM also implemented a comprehensive community outreach and education program to teach Cincinnati citizens about pollution prevention and waste reduction.

The city's pollution prevention program is committed to the Total Quality Management concept of continuous improvement. OEM has promoted and implemented pollution prevention in all three areas of their work: the internal municipal city operations (and other local governments and institutions), their business and industrial community and their general public. As a municipality, the city continues to look for ways to improve their relationships with other governments, businesses and citizens to better share and promote the benefits of pollution prevention.

Pollution Prevention Activities

OEM has demonstrated its environmental commitment through a successful, strategic approach to pollution prevention. This section briefly describes the major projects and initiatives that have been instrumental in the

OEM's pollution prevention success.

Conversion to Waterborne Paint

Beginning in 1994, as part of the City's pollution prevention efforts, the Department of Public Works' Highway Maintenance Division converted from solvent-based paints to waterborne paints for highway line striping. To accomplish this the city conducted research, converted equipment, purchased new equipment, and trained managers and painting crew employees.

The waterborne paints have significant environmental advantages. This project eliminated the harmful cleaning solvents and resulting hazardous waste generated from the cleaning process. Hazardous waste disposal resulting from the paint residues and empty paint drums was eliminated. The paints no longer contained lead, cadmium and other heavy metals. Lastly, this process produced significantly lower emissions of VOCs from both yellow and white paints (well below the levels U.S. EPA indicated to be the anticipated new standard).

The use of toxic materials and hazardous waste has been eliminated totally by this conversion. Based on an estimated annual use of 22,000 gallons of line stripe paints, approximately 33,000 pounds of lead and approximately 36,000 pounds of VOCs have been

eliminated from Cincinnati's environment annually.

Assessments for Local Industry

From 1993 to 1995, the City of Cincinnati contracted with the Institute of Advanced Manufacturing Sciences (IAMS) to complete 10 pollution prevention/waste reduction opportunity assessments for local industry under the PPIS grant. The initial companies selected were based on targeted hot spot neighborhoods that are both industrial and residential. The types of companies included an electroplater, metal fabricator, rubber and plastics resurfacing facility, three printers, a drum processor, two medical and cleaning products distributors, and a drum reconditioner.

In addition, four City departments, the Industrial Waste Laboratory of the Metropolitan Sewer District, the City Municipal Garage, the City Print Shop and the Sanitation Division were assisted in performing pollution prevention/waste reduction opportunity assessments. These departments were chosen because of their high-profile with ongoing and frequent contact with the public, and their ability to transfer and apply pollution prevention successes to other City departments and private sector counterparts. Additionally, these departments represent the "manufacturing/industrial" component of the City services.

City of Cincinnati

The most common environmental benefits were reduction in wastewater, reduction and reuse of toxic solvents and oils, and solid waste reduction such as paper, rubber and cardboard.

Outreach and Educational Programs

The City of Cincinnati's pollution prevention program has a goal of educating and influencing the general public's attitude toward pollution prevention as a way of living. Several comprehensive community outreach programs have been developed and executed. While it is difficult to measure and quantify the cumulative effect of outreach activities on pollution prevention and waste reduction, the City believes that long-term measurements will show significant reductions in wastewater, air pollution, solid waste and other harmful by-products of living in the 21st century.

The City created a partnership with the Cincinnati Zoo to promote pollution prevention which includes the distribution of an informative brochure. The City has a locally produced television program, "Make Peace With Nature," which is a series of programs on pollution prevention. The City also participates in Earth Day functions and other special events, dispensing information on pollution prevention.

Ohio Prevention First

OEM is an active participant in the *Ohio Prevention First* initiative. *Ohio Prevention First*, established at the request of Governor Voinovich, is a voluntary planning initiative seeking a reduction in pollution generated throughout Ohio. This initiative provides an important opportunity for business and industry to take a leadership role in environmental protection without the need for additional regulatory mandates.

Environmental and Economic Benefits

The projects improved the environment by either reducing the pounds of pollution that are released into the environment or by replacing a toxic pollutant with a less toxic material. For the first project, the City has eliminated expenses for handling and disposing of hazardous paint wastes. In the second project, the potential savings to the 10 small to medium-sized local businesses range from \$2,000 per year to \$400,000 for a total of over 1.5 million dollars. The City will save approximately \$11,000 per year through their project.

Management Commitment

The City of Cincinnati is committed to a long-term grassroots effort to educate the public and call its citizens to action to protect and improve

their community through pollution prevention efforts.

Transferability

The City of Cincinnati's pollution prevention program shares information regarding its activities and initiatives through presentations to other agencies, videotaped training sessions, press releases and the development of workshops designed to promote pollution prevention.

For More Information

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This is the 39th in a series of documents Ohio EPA has prepared on pollution prevention. For more information, call the Office of Pollution Prevention at (614) 644-3469.

The Office of Pollution Prevention was created to encourage multi-media pollution prevention activities within the state of Ohio, including source reduction and environmentally sound recycling practices. The Office analyzes, develops, and publicizes information and data related to pollution prevention. Additionally, the Office increases awareness of pollution prevention opportunities through education, outreach, and technical assistance programs directed toward business, government, and the public.

Office of Pollution Prevention WWW address: www.epa.ohio.gov/opp