

## Pollution Prevention

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# What is Pollution Prevention?

**"Pollution Prevention means *SOURCE REDUCTION* - preventing or reducing waste where it originates, at the source"**

Pollution Prevention Act of 1990

On January 26, 1989, the United States Environmental Protection Agency (U.S. EPA) proposed a new pollution prevention policy that has changed the course of environmental protection. On this day the federal agency made a commitment to change its traditional focus from pollution control to pollution prevention.

The U.S. EPA's focus was affirmed by the Pollution Prevention Act of 1990. Under the act, Congress established the environmental waste management hierarchy, in which the highest priority was given to pollution prevention through source reduction.

### Pollution Prevention Defined

*U.S. EPA's definition of pollution prevention:* Pollution prevention (P2) is source reduction and other practices that reduce or eliminate the creation of pollutants through the increased efficiency in the use of raw materials, energy, water or other resources, or the protection of natural resources by conservation.

*Ohio EPA's definition of pollution prevention:* The use of source reduction techniques in order 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 transfers of wastes and/or pollutants and is multimedia in scope. It addresses all types of waste and environmental releases to the air, water and land.

*Source Reduction:* Any effort to reduce, at the source, the quantity of waste generated, toxic chemical use, or any release into the environment. Source reduction measures include, but are not limited to, process modifications, feedstock purity, material substitution, good operating and management practices, increases in the efficiency of machinery and recycling within a waste generating or other production process.

At U.S. EPA, pollution prevention means *source reduction* — preventing or reducing waste where it originates, at the source — including practices that conserve natural resources by reducing or eliminating pollutants through increased efficiency in the use of raw materials, energy, water and land. The concept of pollution prevention is broadly applicable — a tool to accomplish many environmental tasks.

### What Isn't Pollution Prevention?

Under the Pollution Prevention Act of 1990, the following activities are not included within the definition of pollution prevention:

1. recycling, dilution, conservation, energy recovery, treatment or disposal;
2. incineration or other thermal treatment;
3. treatment to reduce volume;
4. treatment to reduce toxicity;
5. installation of end-of-pipe equipment to comply with pollution control regulations; and
6. use of equipment to reduce water content and volume.

A prevention-based approach to environmental protection saves money and resources by avoiding costly cleanups and the high cost of managing waste after it's been generated. *More waste* often means *less efficiency*. Improving operations and enhancing process efficiency usually saves time, reduces costs and improves service delivery. Pollution prevention presents a number of opportunities to improve the environment that are not apparent using traditional environmental management techniques.



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## Benefits of Pollution Prevention:

### ★ Environmental Benefits

Environmental benefits can include: protection of the environment from further degradation, prevention of irreversible environmental problems and a reduced rate of depletion of natural resources.

### ★ Health Benefits

Pollution prevention is beneficial to both the general public and workers. Benefits include reduced risks to human health and safety and reduced worker exposure to toxic chemicals.

### ★ Economic Benefits

Pollution prevention has the potential to increase the efficiency and competitiveness of American industry. Economic incentives can be significant, depending on the type of industry, the nature of the processes and the competitive business environment.

### ★ Liability Benefits

Pollution prevention can reduce liability for environmental problems at both on-site and off-site treatment, storage and disposal facilities. It also can lower the risk of spills, accidents and emergencies, and it helps protect workers.

### ★ Public Image Benefits

Society is becoming increasingly aware of the environmental hazards associated with all types of waste. U.S. EPA publishes details of companies' waste and pollution prevention efforts through the Toxics Release Inventory. U.S. EPA publicly recognizes those companies that make voluntary commitments to pollution prevention. To enhance public image, companies are implementing and publicizing their pollution prevention activities.

### ★ Regulatory Benefits

Companies will also find it easier to maintain compliance after a pollution prevention program has been established. Reduced regulatory requirements are also a result of pollution prevention initiatives.

## Pollution Prevention Success Stories in Ohio

*The 121<sup>st</sup> Air Refueling Wing, Ohio National Guard*, Franklin County, eliminated ozone-depleting chemical purchases, minimized the use of toxic chemicals and minimized the generation of hazardous and solid wastes.

*Neaton Auto Products Manufacturing, Inc.*, Preble County, developed a proactive and successful P2 program addressing hazardous material reduction, energy conservation and recycling. Neaton saved more than \$524,000 from paint line improvements, internal scrap reduction and plastic recycling projects.

*Core Materials Corporation*, Franklin County, which manufactures compound and fiberglass-reinforced plastic products, eliminated the use of chlorinated solvents in its process. This eliminated emissions of a hazardous air pollutant. The company also saved \$50,000 in hazardous waste disposal costs from 1996 to 1997.

*The Hoover Company*, Stark County, reduced air, waste and water emissions by more than 90 percent. It also reduced hazardous waste generation and Toxic Release Inventory emissions by 97 percent in the last 10 years. The company has accomplished this by redesigning its process to reduce the amount of water used and reformulating its product to reduce the amount of hazardous waste generated.

## Resources and References

U.S. EPA-Office of Pollution Prevention and Toxics, EPA Pollution Prevention Web site  
[www.epa.gov/opptintr/p2home/](http://www.epa.gov/opptintr/p2home/)

Pollution Prevention Act of 1990  
[www4.law.cornell.edu/uscode/42/ch133.html](http://www4.law.cornell.edu/uscode/42/ch133.html)

Ohio EPA-Office of Pollution Prevention  
[www.epa.state.oh.us/opp](http://www.epa.state.oh.us/opp)

The National Pollution Prevention Roundtable (NPPR)-NPPR is the largest membership organization in the U.S. devoted solely to P2.  
[www.p2.org](http://www.p2.org)

Pollution Prevention Resource Exchange (P2Rx)-P2Rx is a national network of regional centers dedicated to improving the dissemination of P2 information. [www.p2rx.org](http://www.p2rx.org)

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**For more information, call the Office of Pollution Prevention at (614) 644-3469.**

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The Office of Pollution Prevention was created to encourage multimedia pollution prevention activities in Ohio to reduce risk to public health, safety, welfare and the environment. Pollution prevention stresses source reduction and, as a second choice, environmentally sound recycling while avoiding cross media transfers. The office develops information related to pollution prevention, increases awareness of pollution prevention opportunities, and can offer technical assistance to business, government and the public.

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