



*Why should you care  
about preventing waste?*



United States  
Environmental Protection  
Agency

EPA742-E-01-001  
July 2001  
[www.epa.gov/p2](http://www.epa.gov/p2)

Office of Pollution Prevention and Toxics (7409)

*The bottom line is that  
reducing waste will*

**SAVE YOU MONEY.**



## *Why should You Care About Preventing Waste?*

**E**very business generates waste. For some, it may be only waste paper or dirty water; for others, it may be hazardous or toxic wastes that require special handling and disposal. Whatever the type or volume of waste your company generates, it is all the same in one respect—it is costing you money! In fact, you're paying for it twice—once when you buy it and the second time when you throw it away. The bottom line is that preventing waste will save you money.

By consuming and throwing away less, you will reduce the need to handle, treat, and dispose of waste. Waste prevention can take many forms, including:

- Purchasing durable, long-lasting materials.
- Striving to eliminate raw materials that are not incorporated into your final product or service.

## HOW DOES RECYCLING FIT IN?

Recycling is the process whereby materials that would have become waste are converted into new materials and products. Many companies recognize that it makes both economic and environmental sense to recycle a material rather than dispose of it. However, the recycling process still requires handling, energy use, and reprocessing. The key thing to remember is that the materials you are sending to the recycler represent lost revenues because they are not becoming a part of your product or service.



*Remember—*

*waste reduction includes practices that reduce the use of energy, water, or other resources as well as those that protect natural resources through conservation or more efficient use.*

- Using products that are free of toxic materials.
- Reducing the amount of packaging.
- Conserving water and/or energy.
- Implementing in-process recycling.

Many waste prevention efforts, such as two-sided printing and using e-mail in place of printed copies, are inexpensive and simple to implement, often involving only a change in attitude or work procedures.

Waste prevention is a business strategy from which any company, regardless of size or type, can benefit. In addition to cost savings, it can also help you improve worker safety, reduce liability, and enhance your image in the community. Furthermore, if the waste you are eliminating or reducing is regulated under state or federal law—and your reductions are significant enough—you might be able to avoid costly permits and government approvals.

### **IT'S THE RIGHT THING TO DO**

In addition to these financial benefits, waste prevention is the right thing to do. Preventing waste prevents pollution, making your neighborhood and community a safer, healthier place to live. In the end you benefit, the environment benefits, the community benefits, and your company establishes itself as a good corporate citizen, providing immeasurable, lasting rewards.

## How Do You Get Started?

**Y**ou can make waste prevention a routine part of daily business, just like worker safety and customer satisfaction. A little time and effort can go a long way toward success by following these basic steps:

### 1. DETERMINE WHAT WASTES YOU GENERATE.

- Examine all of your waste streams, including process wastes, hazardous wastes, nonhazardous wastes, solid wastes, and office waste. Look in trash cans and dumpsters to determine what materials are being thrown away and consider what wastes are poured down the drain, such as rinse waters and process waters. Examine your energy and water consumption and look for high and low usage trends in your water and electric bills.
- Characterize each waste stream—determine where the waste comes from, what processes generate it, and how much is being discarded.

## JUST GETTING STARTED?

### KEEP THESE SUGGESTIONS IN MIND:

- Start off small—target one or two materials for reduction.
- Work with neighboring businesses to share information on waste reduction techniques, less polluting materials, and process changes that reduce wastes.
- Focus first on ideas that require minimal capital investment.
- Involve all employees in planning and implementation.





## EMPLOYEE INVOLVEMENT IS KEY!

### 2. IDENTIFY WASTE PREVENTION MEASURES.

- Evaluate all wastes for possible reduction. Determine how you can reduce each waste, evaluate your purchasing policies, and determine what you can reuse.
- Identify potential production changes that would improve efficiency, including process, equipment, piping, and layout changes.
- Investigate opportunities for new products or ingredients that prevent waste generation.
- Identify resources that will help you conduct a waste reduction assessment at your business.

Trade associations and state and local regulatory agencies might be able to provide technical assistance, and your equipment vendor might have suggestions to reduce wastes. Also, consider hiring a consultant who specializes in identifying potential waste prevention measures. Who knows? The consultation may pay for itself after just one visit.

Frost Paint and Oil of Minneapolis, Minnesota, manufacturers industrial paints and linseed oil-based varnishes. Several years ago, the company established a waste reduction goal of 10 to 15 percent, and it decided that the quickest and least expensive way to achieve this was to implement an employee incentive program. By passing two-thirds of the resulting savings on to its employees, the company reached its waste reduction goal in 1 year! The innovative approach reduced hazardous waste by 55 percent and saved Frost Paint and Oil \$25,000.

\*Adapted from EPA's EnviroSense Web site

### CONSERVING WATER PAYS OFF!

Tri-Star Technologies, Inc. manufactures products for the electronics industry, including printed wiring boards. By implementing "smart rinsing" techniques and reusing rinse water from one set of rinse tanks to another, the company reduced their water use by 79 percent. Overall, Tri-Star estimates that "smart rinsing" has reduced their water usage by 2.5 million gallons per year, resulting in cost savings of approximately \$15,000.

\*Adapted from the EPA's Design for the Environment Program

### 3. SET YOUR PRIORITIES AND GOALS.

- Prioritize waste prevention opportunities by considering cost, ease of implementation, payback, and other benefits, such as increased employee safety.
- Try focusing on a few opportunities that are easy to implement, have low capital investment, save you money, and reduce large volumes of waste.
- Set attainable goals, such as reducing office paper waste by 25 percent or reducing your waste hauling and disposal costs by \$5,000 annually.

## CUSTOMERS HELP REDUCE WASTE

Prestige Cleaners of Scottsdale, Arizona, has implemented waste prevention on both sides of the front counter. By switching to a less harmful petroleum solvent and wet cleaning 15 percent of the garments brought into the stores, it has eliminated perchloroethylene from the cleaning process. Prestige Cleaners also uses a water evaporation and filtration system that saves \$1,800 per year in hazardous waste disposal costs. To encourage their customers to reduce waste, the company provides reusable garment bags and offer an economic incentive for them to return hangers. The hanger reuse program saves the company an estimated \$18,000 per year.

\* Adapted from a National Waste Prevention Coalition Case Study





## INEXPENSIVE SOLUTIONS FOR REDUCING WASTE

The Herald Review/Itasca Shopper, a small newspaper in Michigan, reduced solid waste by 97 percent by encouraging efficient and innovative use of materials, and recycling and reusing materials whenever possible. Newsprint rollends were sold to a local company for packing material, waste ink was reused by blending it with black ink, and the useful life of film developing chemicals was extended through the use of additives. Although it cost the company nothing to implement these and other changes, they saved \$18,000 annually as a result.

\*Adapted from EPA's EnviroSense Small Business Waste Reduction Guide

### 4. GET STARTED.

- Teach your employees how to prevent waste. Describe your waste prevention policies and goals, and provide training to employees who must change how they handle materials.
- Promote your waste prevention activities. Hold a kick-off event to describe your goals and highlight the benefits for your business. Use posters or signs to get the word out to employees and place the signs in areas where waste prevention activities should happen.
- Encourage employee involvement by offering incentives. Prizes or awards can be given for the best ideas or those that result in the most savings. A portion of the savings can also be given to employees or their departments.



## How Do You Know It's Working? Measuring Your Success

**T**o determine whether your waste prevention efforts are successful, from both an environmental and economic standpoint, you need to evaluate your progress. Suggestions for evaluating your waste prevention efforts include:

- **Monitor process and waste production changes.** Track things such as the volume of waste produced, how often it is hauled away, and reductions in energy use, the amount of raw materials used.
- **Calculate the savings.** Look at savings in handling, treating, and disposal costs as well as savings from reduced raw material and energy use.

### BLAST AWAY PAINT WITHOUT CHEMICALS

The Gehl Company in West Bend, Wisconsin, modified its paint stripping process and now saves \$32,000 a year in waste disposal costs. The company replaced chemical paint strippers with a blasting cabinet that uses small plastic particles to strip paint off parts. This process change also provided employees with a safer and healthier work environment.

*\*Adapted from the Waste Reduction Resource Center Web site*

- **Look at the indirect benefits.** Try to gauge the value of less obvious benefits such as improved public image, reaching new markets, improving or expanding production processes, employee morale and safety, and other advantages.

### REUSE ELIMINATES WASTE

The Guardian Industries' plant in Ligonier, Indiana, has eliminated more than 2 tons of textiles from their waste stream by laundering and reusing gloves, saving the company approximately \$30,000. The company also switched from paper towels to reusable wiping cloths, saving \$7,200 in purchasing costs.


*\*Adapted from the EPA's WasteWise program*

- **Reevaluate your efforts on a regular basis.** As new raw materials and processes are introduced,

## BENEFITS FOR SMALL BUSINESSES— AS EASY AS CHANGING A LIGHT BULB!

Investing in energy-efficient lighting proved to be a smart move for Pearl Pressman Liberty, a commercial print facility in Philadelphia, Pennsylvania. By replacing their T-12 fluorescent lamps and magnetic ballasts with energy-efficient T-8 lamps and electronic ballasts, they were able to save \$21,000 in energy costs annually. The energy reductions from these upgrades are equivalent to removing 28 cars from U.S. highways, or planting 56 acres of trees in U.S. forests!

\*Adapted from the  
Printer's National  
Environmental  
Assistance Center  
Web site



waste streams change. Conduct regular assessments of your business to identify additional waste prevention opportunities. Remember, as long as you continue to generate waste, there are opportunities to reduce it.



“POLLUTION  
PREVENTION  
PAYS,”

*say several of the nation's leading corporations. Increasingly, the nation is coming to understand prevention's value—as an environmental strategy, as a sustainable business practice, as a fundamental principle for all our society.*



United States  
Environmental Protection Agency  
1200 Pennsylvania Avenue, NW. (7409)  
Washington, DC 20460

Official Business  
Penalty for Private Use \$300



Printed on paper that contains at least 50 percent postconsumer fiber.