



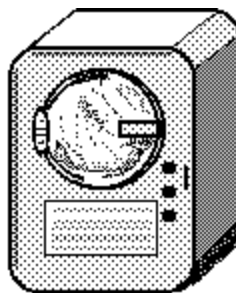
SMALL BUSINESS  
*Technical Assistance*  
*Program*



July 1996

## *Come Clean With Us*

Dry cleaners work with a wide range of materials that can cause air and water pollution. The most common is perchloroethylene (perc). Perc is a toxic solvent that it has been named a *hazardous air pollutant (HAP)* according to the federal *Clean Air Act (CAA)*. The EPA controls the release of perc into the air by issuing a *National Emission Standard for Hazardous Air Pollutants (NESHAP)* for the solvent.



A NESHAP sets a limit on the amount of a particular solvent or material that may be emitted into the atmosphere by any one source. It also describes methods and devices businesses can use to meet that limit. *All dry cleaners that use perc must register with the EPA and are subject to the NESHAP.* In addition, they must obtain a local air permit to operate in Lancaster County.

## ENVIRONMENTAL TERMS

There are several terms that you should become familiar with, if you are not already. A *waste* is anything that is discarded, recycled, or stored for disposal. The waste may be solid, liquid, or gas. If you are still using it for its intended purpose, it is *not* a waste. Any gas that escapes during a process is a *fugitive emission* and is considered a waste. Fugitive emissions are the most common source of perc wastes.

A waste is *hazardous* (or *hazardous waste*) if it is a *listed* hazardous waste: that is, it is a waste that is on the EPA's list of hazardous materials. A waste is also hazardous if it has the *characteristics* of a hazardous waste: it has one or more of the following physical qualities:

- ☀ **Ignitability**—the waste burns and has a flash point of less than 140° F. Many solvents used in dry cleaning are ignitable (however, perc is **not** a combustible liquid).
- ☹ **Corrosivity**—the waste has a pH of 2 or less or of 12.5 or more; it dissolves metals or other materials and burns the skin. Acid and alkaline cleaning fluids are corrosive.
- ☠ **Toxicity**—the waste is harmful if swallowed. Solvents are toxic.
- 💧 **Reactivity**—the waste undergoes a rapid or violent chemical reaction when it comes in contact with water or other materials. Many bleaches are reactive.

You may have heard your business referred to as a "generator"; a *generator* is anyone (person or business) that creates hazardous waste. Many generators

## DESIGN FOR THE ENVIRONMENT—

### *A PLAN FOR OUR FUTURE*

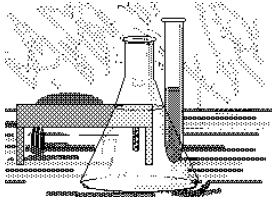
Design for the Environment (DfE) is an EPA program to encourage businesses to voluntarily form partnerships with each other, government, educational and research facilities, and others. The goals are to:

- ensure that environment concerns are considered when making cost and performance decisions, and
- create incentives to encourage behavioral changes that will ensure continuous environmental improvement.

Participants in DfE have access to EPA expertise, local technical assistance providers, and each other. These organizations evaluate the environmental and human health risks, performance standards, and cost trade-offs between traditional and alternative technologies. The EPA and local technical assistance providers also assist businesses in identifying new technologies and in finding ways to incorporate and use those technologies.

**Lincoln-Lancaster County  
Health Department**  
3140 "N" Street  
Lincoln, NE 68510-1514  
(402) 441-8040

also produce special wastes that may or may not be hazardous but require a special waste permit from the Lincoln–Lancaster County Health Department (LLCHD) in order to dispose of them. The generator is responsible for the waste produced at a given site. If the generator wishes to prove that the wastes produced are not hazardous, the generator must arrange and pay for all testing.



The generator may also be able to use “knowledge of process” to demonstrate that a waste is not hazardous. “Knowledge of process” means that a generator knows his or her process so well that he or she can state with authority that the waste produced is not hazardous.

## POLLUTION PREVENTION (P2) CONSIDERATIONS

Being a hazardous waste generator does not mean that your business is doing anything wrong. Nearly every business is a hazardous waste generator. One of your business goals should be to eliminate as much hazardous waste as you can.

- 1 First, study all of the processes and systems you use in your business to find out *where* waste is occurring. Check for leaks using an electronic leak detector; look for evaporation, spills, and other clues that machines are emitting materials. Analyze and keep a log of the amount of chemicals you are using. You may be using 10 gallons but only need 7 gallons.
- 2 Second, determine *how* you can reduce the amount of waste. Once you know where the wastes are coming from, it is easier to see how you can stop it. If you see a leak, make the needed repairs. If you see spills, determine how they happened and change behaviors or processes to reduce the risk of spills.
- 3 Third, determine if you can use alternative, less toxic processes or products. Perhaps you can change to a aqueous wet cleaning system. Maybe you can quit using perc and substitute a less harmful solvent or other cleaner.

Often, the best P2 technique is to use a *combination* of methods: change a process *and* use a less toxic chemical. The LLCHD can help you reduce the amount of hazardous waste your business generates.

## INFORMATION AND OUTREACH AVAILABLE

A Cleaner Technology Substitutes Assessment (CTSA) is one tool the EPA uses to research new technologies and alternative solvents. In 1993, the EPA conducted a CTSA for the dry cleaning industry. The agency plans to produce “a technical overview of all available traditional and alternative technologies, solvents, and processes . . . [and] will produce an informative document” (*Design for the Environment: Dry Cleaning Project*). The LLCHD will make this material available as soon as we receive copies; or you can contact the EPA (see list to the right) to request this information.

### FOR YOUR INFORMATION

The Lincoln–Lancaster County Health Department (LLCHD) has many resources that will assist you in planning and carrying out your own pollution prevention (P2) activities. Some resources are available from other groups. Below is a partial list of resources as well as ordering information and prices (if any). Please feel free to contact the LLCHD or any of the agencies listed below for additional information.

USEPA. 1994. *Design for the Environment: Dry Cleaning Project*, EPA 744-F93-004. USEPA, Pollution Prevention and Toxics (7406).

USEPA. 1994. *Summary of a Report on Multiprocess Wet Cleaning*, EPA 744-S-94-001. USEPA, Pollution Prevention and Toxics (7406).

Pollution Prevention Information Clearinghouse (PPIC)  
401 M Street, SW (3404)  
Washington, DC 20460  
Tel: (202) 260-1023 Fax: (202) 260-0178

A full copy of the report is available for \$12 from:

Government Printing Office  
732 North Capitol Street, NE  
Washington, DE 20401  
Tel: (202) 783-3238

EPA. 1996. *Dry Cleaners: Compliance Assistance*. EPA, Office of Compliance Fact Sheets, call (202) 564-7073.

Source Reduction Research Partnership. *Source Reduction and Recycling of Halogenated Solvents in the Dry Cleaning Industry*. Source Reduction Research Partnership, the Metropolitan Water District, and the Environmental Defense Fund.

Jacobs Engineering Group, Inc.  
251 South Lake Avenue  
Pasadena, CA 91101  
Tel: (818) 449-2171

Cooperative Extension. (1995). *A Tool Kit for Drycleaners*. Lincoln, NE: Cooperative Extension Publications, UNL. (\$6.00)

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