



# Shoptalk

Spring 1997  
Vol. 7, No. 2

A quarterly publication for hazardous waste generators

## Waste Management Improves by Leaps and Bounds

Ecology's hazardous waste inspectors have visited businesses and facilities like yours for nearly twenty years. How has industry responded to these inspections over time? Is the environment better off as a result?

Ecology inspectors routinely check four key areas for violations that can have an immediate impact the environment:

- ✓ illegal disposal of hazardous waste,
- ✓ spills to the environment,
- ✓ failure to determine if waste is hazardous, and
- ✓ serious waste storage violations, like leaky containers.

The graph below shows the percentage of facilities inspected between 1991 and 1996 that were cited for these waste management

problems. These key violation areas are always covered during an inspection, so they have been tracked consistently over the five-year period. The graph reflects a simple yes or no count of total violations in these categories.

What does the graph show us? It clearly illustrates that threats to the environment at businesses inspected by Ecology have dropped significantly in the last five years.

In 1991, a hazardous waste inspector had an 86 percent chance of finding a violation that could harm the environment. Today, the chance of finding a significant environmental threat during an inspection has dropped to 26 percent, even though the number of inspections has remained steady. This fact translates into less hazard-

ous waste entering the environment.

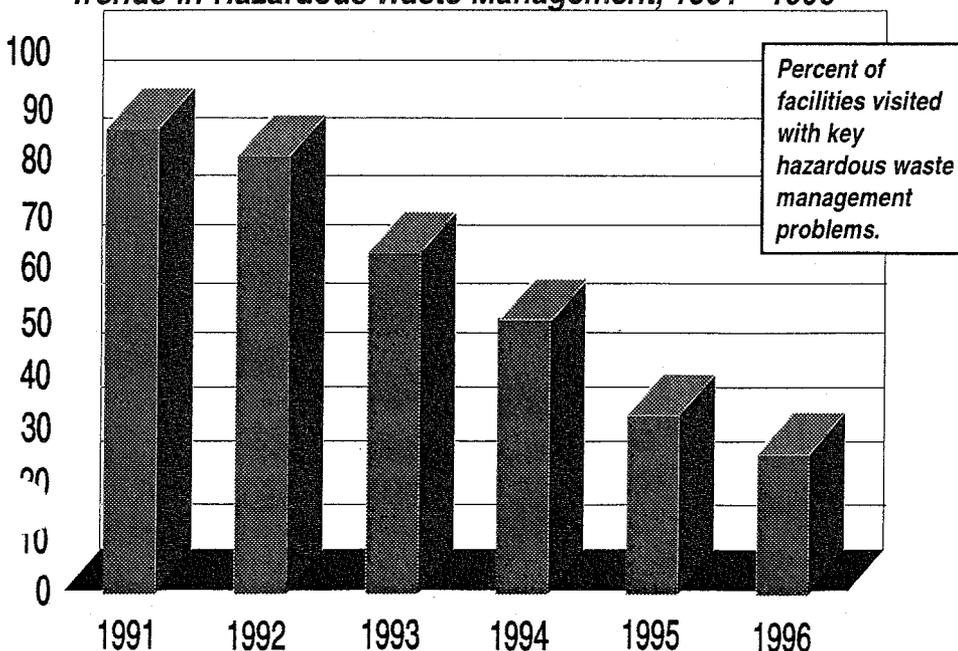
It also means that businesses are managing their hazardous waste better than ever. And it is a strong indicator that Ecology's approach of working with industry to achieve compliance is working.

Over time, tracking this type of information helps Ecology know where and how to focus its resources. We can identify the industries or waste streams that consistently score high or low in key violation areas. Industries or waste streams that need improvement can get more attention than those with a proven record of proper waste management.

Where do we go from here? Threats to the environment have gone down, but we still have a ways to go. The challenge is for hazardous waste generators and Ecology to continue to make improvements and move to the next level of environmental protection. An environmental management system — EMS — approach (see *Shoptalk*, Winter 1997) is one way to pursue ongoing improvement in waste management by using pollution prevention as a driving force.

While there is still work to be done, Ecology salutes industry for its effort and great improvements over the last five years.

**Trends in Hazardous Waste Management, 1991 - 1996**



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## Software Makes Annual Reporting Easier

Ecology has developed a computer software package to help generators prepare and submit annual reporting data. *TurboWaste* is a program you can use all year round to help manage your hazardous waste information.

*TurboWaste* is designed to be a complete data management system. With *TurboWaste*, generators can enter waste data directly into the system, view the data on screen, perform data quality checks, and get reports. The software lets you electronically submit the Generation and Management, Waste Received, and Off-Site Identification forms for your annual report on floppy disk or over the Internet.

Companies with their own information systems can import data into *TurboWaste* for conducting required data quality checks. It also allows you to do on-line editing of your data. With a push of a button you can prepare your data for submission to Ecology.

*TurboWaste* is a Windows-based program that uses the following hardware and software:

- ✓ Windows 95 or Windows NT
- ✓ IBM Compatible PC. *TurboWaste* runs best on a Pentium P-133 with 32 Megabytes RAM and 20 Megabytes of free hard disk space. At a minimum, the software requires a 486-66 MHz computer with 16 Megabytes RAM and 20 Megabytes of free hard disk space.

Download *TurboWaste* FREE from Ecology's home page at [www.wa.gov/ecology/hwtr](http://www.wa.gov/ecology/hwtr). Copies on diskette and CD ROM are available for a small charge.

For more information check out our Internet site, or call Jean Rushing at (360) 407-6732, or E-mail her at [jeru461@ecy.wa.gov](mailto:jeru461@ecy.wa.gov).

## Automotive Repair Shop Environmental Charges

In the mid-1980's, overhead costs for waste management in auto shops rose rapidly. Many shops began adding environmental charges to make up for the expense. This made good business sense.

Shops took a number of different approaches on how they set environmental charges. Some simply added a flat fee to each invoice. Others added a certain percentage to the bill. Still other shops figured the environmental costs for each process and charged accordingly.

Recently, Ecology staff have responded to upset customers who feel they paid too much for these charges, or should have never paid them at all. Callers say that shop employees tell them Ecology requires businesses to collect these charges from customers.

In fact, Ecology does not ask businesses to collect any hazardous waste management charges from their customers. However, most shops pay fees to Ecology because they generate hazardous waste.

### Ecology Fees

All hazardous waste generators must pay a \$35 annual fee that funds education and technical assistance programs for small businesses. Ecology also collects a fee from businesses that write pollution prevention plans. Most auto shops do not generate enough hazardous waste to fall into this category.

It's a fact that automotive repair shops must pay for the safe management of hazardous waste generated while performing repairs. Just make sure that your employees and customers understand the reason environmental charges appear on an invoice.

For more information, contact Scott Lamb at (206) 649-7268.

## Important Announcements

### Chemical Test Methods Revised

Ecology has redrafted the guidance for chemical testing methods for designating dangerous waste. The new version will be available in May.

The revised guidance covers only the testing requirements of WAC 173-303-090 and -100.

To order your copy, call (360) 407-7472 or 1-800-688-7585 and ask for publication #97-407, *Chemical Test Methods for Designating Dangerous Waste - WAC 173-303-90 and -100*.

### Dangerous Waste Regulations to Change

The *Dangerous Waste Regulations* will be updated later this year. Proposed changes include the adoption of several federal requirements, such as updated testing and monitoring requirements, and streamlined management requirements for batteries and thermostats under the Universal Waste Rule.

Clarifications and corrections will be made to existing regulations, and Ecology will adopt simplified antifreeze requirements.

Call Dave Zink at (360) 407-6752 to request a copy of the draft rule language. If you have questions on the rule amendments, please call Patricia Hervieux at (360) 407-6756.

### Apply for the Governor's Award for Pollution Prevention

Ecology is accepting applications for the 1997 Governor's Award for Outstanding Achievement in Pollution Prevention. Washington businesses and government facilities are eligible. Winners will be honored at a special ceremony during National Pollution Prevention Week in September. Applications are due by June 5th. Pick one up at the nearest Ecology regional office, or call (360) 407-6719.

## Case Study: Stroud's Auto Rebuild - Tacoma

Stroud's Auto Rebuild of Tacoma repairs about six vehicles a day, doing bodywork and paint finishing. The company recently switched to improved, less toxic paint and is pleased with the result. Shop owner, Mike Harber, saves \$2,000 a month in paint purchasing and disposal costs by using the new product.

Stroud's uses two types of automotive paint, a water-based paint and a low volatile organic compound (VOC), solvent-based paint.

Paint manufacturers commonly use VOCs as a solvent. Unfortunately, some VOCs cause lung irritation while others can damage the nervous system. Chemicals from exhaust fumes and outdoor burning react with VOCs to form ozone and smog, both of which can harm human health and the environment. Using

water-based paint can reduce VOC emissions by 50 to 70 percent.

Stroud's process uses a water-based basecoat followed by a low VOC, solvent-based clearcoat. The clearcoat must stand up to ultraviolet light. This is a standard that water-based paints cannot yet meet.

The shop ran a simple test to compare the water-based paint with the old, solvent-based coating. The water-based paint, which is a microgel suspension, did not run when applied to a metal sheet tipped to a 45 degree angle. The solvent-based paint ran like water.

According to senior painter, Rick Verzal, it is easy to work with water-based paint. Coverage is excellent, and there is far less overspray during application. Stroud painters now mix less paint and use up what they mix, generating less waste. Easy mixing in-

structions make it possible to mix as little as ¼ pint for small repairs.

The water-based system costs about 10 percent more, but the business still saves money. Less paint is needed to obtain the same coverage. This reduces the amount of paint disposed of as dangerous waste at clean up.

Switching to water-based paint requires limited capital investment. The process requires a separate cleaning station for water clean-up, and an additional paint gun to avoid excessive gun clean out. The necessary air moving equipment can be simply added to an existing paint booth. Associated implementation costs should run around \$3200.

For more information about switching to less toxic paints, call Rolfe Parsloe at Ecology's Central Regional Office in Yakima, (509) 454-4329.

## Practical Pollution Prevention Solutions

### Platers: A Spray Gun Can Save You Money

Here's a simple way to reduce waste in any plating operation that uses a water-based solution, like alkaline cleaner.

When a part is removed from an immersion bath, some liquid usually clings to the part. Prevent this loss of product by hanging the workpiece over the bath and spraying it with water from an airless paint gun. The water mist condenses on the part. The droplets fall back into the bath, carrying usable process solutions with them.

An airless paint gun costs about \$75. The investment will easily pay for itself in the dollars saved on production chemicals, water use, and waste treatment costs.

### Tips to Improve Your Waste Water Treatment System

Two simple changes to the sump used as part of your wastewater treatment system can help reduce waste, lower costs, and minimize wear on equipment.

The idea behind either method is to settle out or capture the majority of solids before they enter the sump. This improves how well the whole treatment system works.

✓ To remove solids that are much heavier than water, like grit and metal shavings, use an insert with a settling trough and overflow drain to separate the solids by gravity. The insert should sit below floor level, and consist of a basin with a raised drain in the center. This allows

clarified water to overflow into the sump.

✓ To capture finer solids, add a bag filter in the center drain. The solids will stay in the filter while the water flows through to the treatment or recycling system.

The inserts should be designed so that they can be easily emptied, and so liquids are not trapped on the process floor. The sump insert requires regular maintenance, but recovered solids can be recycled more easily than wastewater treatment solids. Keep in mind that recovered solids may be subject to hazardous waste laws.

For more information, contact an Ecology Toxics Reduction Specialist or Hazardous Waste Inspector at a regional office listed on page 4.

## Questions and Answers

**Q** What should I do with filters from my antifreeze recycling machine?

**A** Flush fiber filters with two gallons of water, or according to manufacturer's instructions, and allow them to drain. They can then be disposed of as solid waste. Reuse or recycle the washwater.

Puncture metal spin-on filters to drain out the antifreeze. Recycle the spent metal filter casings as scrap metal or send them to a solid waste landfill.

**Q** Do I have to test the filters from my antifreeze recycling equipment before sending them for disposal?

**A** That depends. A recent study showed that the levels of toxic chemicals trapped by the filters were low enough to pass the TCLP test and they would not enter the environment. Flushing or draining removed any residual ethylene glycol.

If your processes are similar to those used in this study - and they probably are - you can avoid testing by using the process knowledge reported in the study to show your filters are not dangerous waste.

Call (206) 689-3051 for your free copy of the *Characterization Study of Used Antifreeze Recycler Filters*.

**Q** What is a recycling credit?

**A** Recycling credits apply to manifested wastes sent off-site for reclamation by a treatment, storage, disposal and recycling facility (TSDR). The TSDR issues the credit based on the percentage of each waste stream they actually reclaim. You enter these percentages on your Dangerous Waste Annual Report.

**Q** Do I claim recycling credits for the waste I recycle on-site?

**A** No. The pounds of waste you recycle on-site, and report as such on your Dangerous Waste Annual Report, are not counted for pollution prevention planning and fee purposes.

**Q** Can I become a small quantity generator by recycling my waste?

**A** No. Your generator status is set by how much waste you actually generate and/or accumulate on-site each calendar month.

For more information on recycling credits, call Holly Sullivan at (360) 407-6733.

## Ecology Contacts

Remember, your business is liable for all hazardous wastes generated. If you are uncertain about your responsibilities as a hazardous waste generator, call your nearest Ecology office and ask for a hazardous waste specialist. For information on reducing or recycling hazardous waste, ask for the toxics reduction staff, also at the following numbers:

*Bellevue:* (206) 649-7000

*Lacey:* (360) 407-6300

*Yakima:* (509) 575-2490

*Spokane:* (509) 456-2926

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*Shoptalk* is produced quarterly by the Hazardous Waste and Toxics Reduction Program, Washington State Department of Ecology (360) 407-6740  
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*Shoptalk is run on an alcohol-free press using vegetable-based inks. Our paper has 50% recycled content, with 20% post-consumer waste.*



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U.S. POSTAGE PAID  
Washington State  
Department of Printing

Washington State  
Department of Ecology  
Hazardous Waste and  
Toxics Reduction Program  
P.O. Box 47600  
Olympia, WA 98504-7600