



Shoptalk

Winter 1991
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A quarterly
publication
of the Solid and
Hazardous Waste
Program

New Bulletin Makes Compliance Easier

What does "hazardous waste" mean to you, your business, your clients and the public? For most, it is a complex and confusing issue. Businesses that know they're generating hazardous waste often find the hazardous waste regulations difficult to understand and follow. Other businesses simply ignore the regulations, while some don't even know that the regulations apply to their by-products. The Washington State Department of Ecology is committed to explaining as well as enforcing hazardous waste laws — laws that exist because the citizens of Washington State have made it clear that human health and the environment must be protected.

Bulletin Goals

Ecology wants to help end the confusion about how to properly manage hazardous waste. *Shoptalk* offers such help. We want to help businesses reduce and recycle more of their hazardous wastes and ensure that the remaining amount is properly managed according to state and federal regulations.

Shoptalk is where businesses can learn the basics about proper hazardous waste management in straightforward language. Am I generating hazardous waste? Do I generate enough waste to be regulated? How can I understand the complex regulations? Is it possible to reduce or recycle my wastes and save money in the process?

Shoptalk gives you the facts and news you need:

- ✓ easy-to-follow compliance steps,
- ✓ information on upcoming hazardous waste-related events,
- ✓ announcements and explanations of new or changing regulations,
- ✓ answers to commonly-asked hazardous waste management questions, and
- ✓ basic waste reduction and recycling assistance.

Education

While regulatory compliance and enforcement are important, they are not our only concerns. Preventing environmental damage by educating and assisting industry, business and institutions on ways to properly handle their waste is highly preferable to overseeing a costly cleanup, or imposing a fine.

Education should further a company's ability to do business in a competitive market. If your business is complying with state hazardous waste regulations, we want you to benefit from that compliance, not suffer financially because a competitor is saving money by not complying.

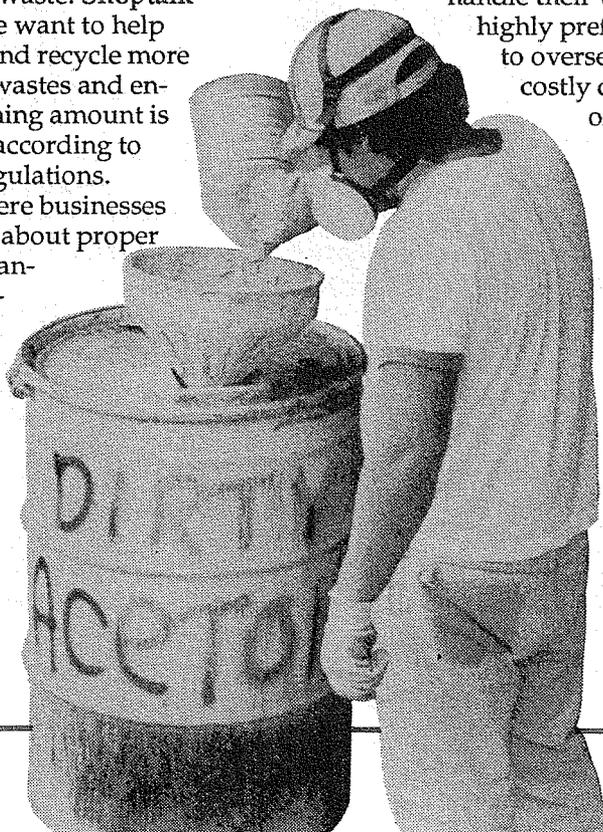
Save Your Copy

So sit down with a cup of hot coffee and read through *Shoptalk*. If you're an administrator, show it to your production supervisor. Likewise, if you're a production supervisor, make sure your administrators see it. And when you're finished, put it in a three-ring binder. Start a collection. As the number of issues grows, you will be compiling an up-to-date, easy-to-use reference library for your business that will help you understand and comply with the law and reduce and recycle your wastes. That's good for business, for workplace safety, and for the environment.

We look forward to working with you!

Tom Eaton

Tom Eaton
Program Manager
Solid and Hazardous Waste Program



A worker for American Reinforced Plastics in Tacoma recycles spent solvents.

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Business Success Stories

All businesses and institutions generate waste. That's why waste reduction and recycling are common sense approaches to managing your resources. Reducing waste at the source ("waste reduction") is the best way to control costs and protect the environment. It includes in-plant practices that reduce, avoid or eliminate the generation or toxicity of waste. Sometimes waste generation cannot be avoided, and in these cases, recycling is a good alternative. Recycling includes the reuse of materials, on-site distillation units and off-site recycling services. Depending on your business type, there are probably several different ways for you to implement waste reduction and recycling in your business.

Switch Materials

One of the most effective ways of reducing waste is switching to less hazardous raw materials. An electronics firm in Everett has switched from using trichloroethane (a chlorinated solvent) to a citrus-based solvent for stripping resin from equipment. They've eliminated air emissions, decreased worker exposure and made used solvent disposal much easier in the process. Other businesses strip paint or degrease with a high pressure spray of bicarbonate of soda crystals and water, instead of a hazardous solvent.

Modify

Process modification is another waste reduction technique. *DeWils Industries* in Vancouver cut costs and reduced wastes when they eliminated their paint booth waste water by converting from wet to dry paint booths. The company also asked its supplier to formulate less hazardous stains and lacquers, and as a result has saved \$200 a barrel in disposal fees for stain and lacquer wastes.

Recycle

Recycling is the next best alternative for managing wastes. Recycling can reduce amounts of waste needing treatment or disposal.

In-plant reuse of washwater proved very cost effective to *Kinnear Door*, a wooden door manufacturer in Chehalis. Kinnear eliminated its glue wash down wastewater by reducing the amount of wash water needed and by using the remaining wash water to produce new batches of glue. For a capital investment of \$1,500, the company has eliminated 2,500 gallons of glue waste a month and saved roughly \$15,000 a year in treatment and disposal costs.

Let Us Help

Waste reduction and recycling saves money on raw materials purchases, transportation and disposal costs, and regulatory compliance. It also improves workplace safety and health conditions by decreasing employee exposure to toxic substances. Decreasing the use of hazardous substances and the subsequent generation of hazardous wastes will help reduce your long-term liability.

We've mentioned just a few of the techniques companies are using to reduce and recycle wastes. Ecology's Waste Reduction, Recycling and Litter Control Program has developed a number of publications to assist you in getting started:

- ✓ *Waste Reduction Assessment Manual*—a step by step approach to conducting a waste reduction audit of your business.
- ✓ *Industry-specific fact sheets*—information on waste reduction opportunities tailored to specific industries.
- ✓ *In-depth profiles*—Washington businesses that have successfully reduced their wastes.

To order any of these documents, or to find out more about the services of Ecology's Waste Reduction, Recycling and Litter Control Program, call 1-800-RECYCLE.

Generator Checklist

Would it help to have a readable, one-page checklist that allowed you to determine if you were generating hazardous waste, and if so, how to comply with the Dangerous Waste Regulations?

Ecology has developed such a checklist; you'll find it as an insert to this issue of *Shoptalk*. As you read through it, you'll become familiar with the major requirements of the dangerous waste regulations. Just as importantly, it will tell you where to look for more information.

Annual Report Update

Even as you read these words, Ecology's Solid and Hazardous Waste Program staff are continuing their round-the-clock efforts to wrap up another reporting year. Copies of the final 1988 Hazardous Waste Annual Report Summary will soon be made available to the public. Preliminary results indicate several changes from the 1987 Summary, including:

- ✓ an additional 20% growth in the number of sites submitting annual reports;
- ✓ nearly a 10% increase in the number of large quantity generators (LQGs generate or accumulate greater than 2,200 lbs. of hazardous waste per month); and
- ✓ more than a 33% increase in businesses reporting generation of regulated quantities of hazardous waste.

Preparations for the 1990 Annual Report cycle have already begun. While continuing the review of 1989 reports, development of 1990's forms, instructions and guidance is also underway. Look for form brochures reaching generators' mailboxes by late December or early January. One thing we are very sure of—the completed 1990 Reports will be due **March 1, 1991**. Mark your calendar now!

New Toxicity Test Mandated by U.S. EPA

Effective September 25, 1990, all large quantity hazardous waste generators must evaluate the regulatory status of their wastes using EPA's new Toxicity Characteristic Leaching Procedure (TCLP). Smaller generators must meet the same requirements by March 29, 1991.

Major industries that may be affected by the new test include:

- ✓ Pulp and paper production;
- ✓ Lumber and wood product manufacturing;
- ✓ Petroleum refining;
- ✓ Organic chemical processing;
- ✓ Plastic material and resin production;
- ✓ Fiberglass manufacturing;
- ✓ Textile production;
- ✓ Pharmaceutical production;
- ✓ Leather processing; and
- ✓ Synthetic fiber manufacturing.

TCLP replaces the Extraction Procedure Toxicity Test (EP Tox). Both tests simulate the acidic conditions in landfills that can leach toxic constituents into ground water. TCLP is more sensitive and accurate than EP Tox and, for this reason,

wastes which tested non-hazardous under EP Tox may be hazardous under TCLP.

The TCLP adds 25 organic chemicals to the existing list of eight metals and six pesticides regulated under the "old" EP Tox. If, after applying TCLP to a waste sample, any of these 39 chemicals are present in the extract or leachate at or above regulatory levels found in chapter 173-303 WAC, the waste is regulated as dangerous.

If you think your business might be affected by the new TCLP, contact your nearest Ecology Regional Office for more detailed information.

Let's Hear From You!

Ecology wants more than just one-way communication about proper hazardous waste management. We want to hear from you, too!

Send us your questions and comments. And if your business discovers ways to reduce waste, increase recycling, or better manage waste, let us know.

Depending on your responses, we may add a "Letters to the Editor" and a "Business Ideas" section to *Shoptalk*.

Regulation Reformatting

Ecology is in the process of reformatting the State Dangerous Waste regulations, Chapter 173-303 WAC. "Regulation reformatting" means revising the organization, language or requirements of these regulations to accomplish several goals:

- ✓ Make the regulations easier to understand and use
- ✓ Reduce inconsistencies within the state regulations and between state and federal regulations
- ✓ Make it easier to incorporate federal changes into state regulations
- ✓ Promote waste management priorities that help prevent the creation of hazardous wastes.

Business and industry can help shape the revised regulations. Ecology will create an external advisory committee composed of members from industry, the public, local government, and special interest groups to provide advice on the reformatting effort. Early in 1991 public meetings will be scheduled as part of the rule development process.

Final revisions will be complemented by an education effort designed to explain the revised regulations to users. Ecology anticipates completion of reformatting efforts by late 1992. For more information, call (206) 459-6516.

TCLP Constituents

Arsenic	Benzene	Hexachlorobenzene
Barium	Carbon tetrachloride	Hexachloro-1,3-butadiene
Cadmium	Chlordane	Hexachloroethane
Chromium	Chlorobenzene	Methyl ethyl ketone
Lead	Chloroform	Nitrobenzene
Mercury	o-Cresol	Pentachlorophenol
Selenium	m-Cresol	Pyridine
Silver	p-Cresol	Tetrachloroethylene
Endrin	1,4-Dichlorobenzene	Trichloroethylene
Lindane	1,2-Dichloroethane	2,4,5-Trichlorophenol
Methoxychlor	1,1-Dichloroethylene	2,4,6-Trichlorophenol
Toxaphene	2,4-Diinitrotoluene	Vinyl chloride
2,4-D	Heptachlor	
2,4,5-TP Silvex		

39 constituents are included in the new TCLP rule. The shaded box contains 14 constituents from the "old" EP Tox. The unshaded box contains 25 new constituents.

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 regional office and ask for a dangerous waste specialist.

Redmond (206) 867-7000
 Tumwater (206) 753-2353
 Yakima (509) 575-2800
 Spokane (509) 456-2926

Questions and Answers

Q What is a Small Quantity Generator?

A In Washington State, a Small Quantity Generator (SQG) is one who generates (per month) or accumulates (at any one time) less than 220 pounds of hazardous waste (or 2.2 pounds of certain "acutely dangerous" wastes.) SQGs are conditionally exempt from further regulatory requirements provided they:

1. designate their wastes;
2. never exceed the 220 lb. per month limit;
3. properly dispose of wastes at a Treatment, Storage or Disposal (TSD) facility, legitimate recycling facility, landfill (with prior approval of the operator) or in accordance with your *local moderate risk waste plan*; and
4. submit an annual report if a state/EPA I.D. number has been issued.

Q I'm confused about used-oil disposal. Is used oil ever considered a hazardous waste?

A Yes. Used oil becomes regulated as a hazardous waste if it is not recycled or is disposed of or mismanaged. Used oil that is recycled is not regulated as hazardous waste unless it is burned for energy recovery or applied to the land. For more information, call 1-800-RECYCLE, or talk to a dangerous waste specialist at your nearest Ecology regional office.

Q Is it true that used antifreeze is a hazardous waste?

A Yes. Used antifreeze containing ethylene glycol at concentrations greater than 10 percent is a dangerous waste under Chapter 173-303 due to toxicity. It may also be a federally regulated hazardous waste due to EPA's new TCLP test (see inside article.) Ecology regional office dangerous waste staff can assist you in complying with the regulations and identifying recycling options.

Q How can I find out about non-hazardous alternatives or substitutes for the hazardous products I now use?

A Call 1-800-RECYCLE, or talk to a dangerous waste specialist at your nearest Ecology regional office.

Q Does Ecology regulate PCB wastes?

A Yes. Ecology regulates polychlorinated biphenyl (PCB) wastes at concentrations between 1-50 parts per million (ppm) from the salvaging, rebuilding, or discarding of transformers or capacitors. Ecology has a discussion paper on PCB dangerous wastes which provides more detail on regulatory requirements, the steps necessary for compliance, and answers to some commonly asked questions. For a copy, call your nearest Ecology regional office.

Q Do all hazardous waste generators need a State/EPA identification number regardless of the amount of waste they produce?

A As long as you remain a Small Quantity Generator, you're not required to have a State/EPA I.D. number. However, since many hazardous waste transporters will dispose of your waste only if you have an I.D. number, Ecology encourages you to obtain one. If you produce more than 220 lbs. of waste per month (or 2.2 lbs. of acutely dangerous waste) you are required to obtain an I.D. number. Call Ecology's hazardous waste report number at (206) 459-6387 and request a "Form 2."

Shoptalk

Shoptalk welcomes your questions and comments. Please address them to:

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Hazardous Waste Checklist

Does your company generate hazardous waste? A hazardous waste is a solid, liquid or gaseous material with certain properties that could pose dangers to human health or the environment. Your business probably generates hazardous waste if it uses:

- pesticides or other chemicals,
- dyes, paints, thinners, solvents, cleaning fluids, or coolants,
- oil or other petroleum products,
- materials that burn or itch on contact with skin,
- materials that dissolve metals, wood, paper, or clothing,
- flammable materials,
- materials that bubble or fume upon contact with water,
- products delivered with a shipping paper or label indicating that the product is hazardous.

This checklist is a **first step** toward understanding your responsibilities as a generator. At first glance, some of the requirements below may seem difficult to understand or address. We understand this and we want to help. Ecology staff can provide further information on the details of meeting your responsibilities as a generator — ask them about receiving the **Guide for Hazardous Waste Generators** and a copy of the **Dangerous Waste Regulations, Chapter 173-303 WAC**.

While the checklist covers important sections of the Dangerous Waste Regulations, it does **not** replace them. Always refer to the regulations themselves for more detail, or call a dangerous waste specialist at your nearest Ecology regional office. If you follow the checklist point for point, you are well on your way to meeting the major requirements for compliance.

The first question allows you to determine if your business produces hazardous waste. If you mark "yes" to any of the categories under question #1, you are a generator of hazardous waste and should continue through the remainder of the checklist. You can find some of the information about your waste on your product's **Material Safety Data Sheet**.

1 Does my company produce hazardous waste?

- One or more of my company's wastes is on Washington's discarded chemical products or dangerous waste sources "list." (see Chapter 173-303-9903 and 9904 of the *Dangerous Waste Regulations*).
- One or more of my wastes is ignitable (flash point of 140 F. or less. Example: *petroleum naphtha*).
- I have a corrosive waste (pH less than 2 or greater than 12.5. Example: *caustic soda*).
- I have a waste that is reactive (could explode, generate harmful vapors, or is an oxidizer. Example: *crystalized picric acid*).
- Wastes from my transformers or capacitors contains more than one part per million PCBs.
- One of my waste mixtures is toxic, persistent, or carcinogenic (see Chapter 173-303-084, 101, 102, and 103. Examples: *used antifreeze, TCE, coal tar*).
- One of my wastes is hazardous under the new Toxicity Characteristic Leaching Procedure (see *Shoptalk* article, Vol. 1, No. 1).

If you checked yes to any of the above categories, you are a generator of hazardous waste. If you are still not sure, contact your nearest Ecology regional office. If you are a generator, you need to determine which of the two generator categories below you fall into and check off all the necessary boxes in order to make sure you're meeting the major state and federal hazardous waste management requirements.

- I routinely or occasionally generate (per month) or accumulate (at any one time) **over 220 lbs.** of hazardous waste. 220 lbs. is roughly one half of a 55-gallon drum. Check-off all remaining boxes in sections 2 through 10.

- I always generate (per month) or accumulate (at any one time) **under 220 lbs.** of hazardous waste. As a small quantity generator (SQG), you need to designate your wastes (you meet this requirement by completing section 1), and arrange for proper transportation and disposal of your wastes (complete section 8). However, Ecology encourages you to review the entire checklist. Remember: the moment you exceed the 220 lb. limit, you become responsible for all elements of the checklist.

2 Obtain a generator identification number.

- I have (or have applied for) a state/EPA identification number.
- I notify Ecology (using Form 2) when I make any changes in hazardous waste activity, company name and ownership, or company location.

3 Report annually.

- I submit an annual report (Form 4) to Ecology by **March 1** of each year that documents my previous year's hazardous waste generation, accumulation, on-site recycling, or other management practices.

4 Perform preventive maintenance.

- I handle hazardous waste in a manner that prevents leaks, spills, fires and explosions.
- I have notified local authorities (fire, police, local hospitals, building inspector) of the hazardous wastes generated at my site(s), as well as the facility layout and access routes.
- I maintain an active communication or alarm system to signal an emergency, and I have this equipment regularly tested and maintained.
- I have immediate access to a telephone or two-way radio in the event of an emergency.
- I maintain a ready supply of special fire control equipment, such as foam, inert gas or dry chemicals.

5 Properly accumulate hazardous waste.

- If my container accumulation area was constructed after **September 30, 1986**, I have a system capable of collecting and holding spills and leaks.
- My reactive and ignitable wastes are stored in a manner equivalent with the **Uniform Fire Code**.
- If I generate or accumulate more than **220 pounds** but less than **2200 pounds** of hazardous waste per month, my waste is transported within **180 days** (six months) of the date the waste was first placed in a container.
- If I generate or accumulate more than **2200 pounds** of hazardous waste per month, my waste is transported within **90 days** (three months) of the date the waste was first placed in a container.

6 Plan for emergencies.

- At all times I have an emergency coordinator on premises or on call.
- I have on premises a written training plan that tracks past and future emergency training for each employee.
- I have provided local authorities (and keep on premises) a written contingency plan outlining employee roles during an emergency, the location of all emergency equipment, and a personnel evacuation plan.
- I post the following information next to all emergency communication devices: name and telephone of emergency coordinator; location of fire extinguishers, spill control material and fire alarm; and telephone number of fire department.
- Within **six months** of hire, I ensure that all my employees are thoroughly familiar with proper waste handling and emergency procedures relevant to their day-to-day responsibilities.
- I obtain a fire department inspection once a year.
- I inspect on a regular schedule all monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment that help prevent, detect or respond to hazards to the public health or the environment.

7 Use proper containers and correctly manage them.

- All containers are marked with the words "hazardous or dangerous waste," an easily understood description of the waste, the date waste was first placed in the container, and the hazards associated with the waste.
- My company's wastes are accumulated in sturdy, leak-proof, closed containers meeting **Department of Transportation (DOT)** specifications.
- I place the proper DOT hazard labels on all containers prior to shipment.
- All containers are visible for inspection.
- I maintain a minimum of **three feet** aisle space between container rows.
- All containers are protected from accidental damage by persons or equipment.

8 Arrange for proper transportation and disposal of hazardous waste.

- I always select a transporter who has a State/EPA identification number.
- I carefully select a permitted hazardous waste treatment, storage and disposal or recycling facility, or a legitimate recycler, to handle my wastes.
- My wastes are picked up and transported by vehicles that have the appropriate DOT hazard placards on them.

9 Manifest shipments of hazardous waste.

- When I ship waste to a Washington State facility, I use **Uniform Hazardous Waste Manifest Form 8700-22**.
- When I ship to an out-of-state facility, I check to see if I must use that state's hazardous waste shipping manifest.
- I fill in the manifest completely and clearly.
- Before the transporter leaves my site, with my waste, I check all manifest information for accuracy, even if the transporter has completed the manifest for me.
- If my waste is restricted from land disposal, I verify that a **land disposal restriction certificate** is attached to the manifest.
- If I haven't received a signed manifest back from the receiving facility within **45 days** of pick up, I file an exception report with Ecology.

10 Keep records of hazardous waste activity.

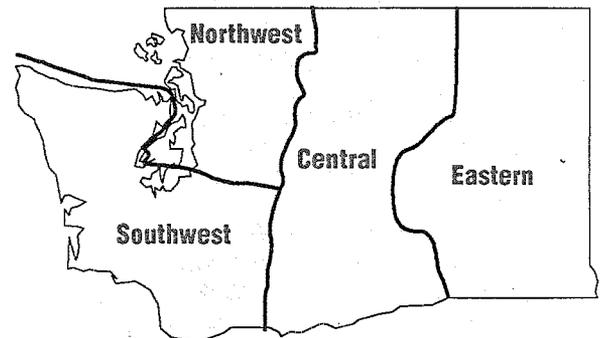
- I keep results from laboratory tests on my wastes.
- I keep copies of annual reports, all shipping manifests, land disposal restriction certificates, inspection records, and exception reports for a minimum of **five years**.
- I keep an inspection log on site.

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