



# Shoptalk

*A newsletter about dangerous waste and pollution prevention*

**Volume 24, No. 2, April 2014 – Publication Number 14-04-001B**

**Links related to all articles can be found on the last page.**

## Inside:

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### **Rule Amendment Process Begins,** *Rob Rieck, Department of Ecology*

3

Ecology is proposing a package of amendments to the Dangerous Waste Rule, Chapter 173-303 WAC, to incorporate changes made at the federal level and add some state-initiated provisions. Ecology plans to formally propose the amendments later this summer.

---

### **Required Training – How to Get There,** *Erin Jeffries, Department of Ecology*

3

It's important to have a training program for handling dangerous waste. Good waste training improves safety, prevents serious accidents, and keeps your business in compliance.

---

### **New Video Asks “What’s in There?”**, *Mariann Cook Andrews, Department of Ecology*

6

How do you know what's in a box of cereal? You look at the labels. How do you know what's in a container of dangerous waste? You look at the labels. What happens when the labels aren't there? Workers could be hurt. And, you might get a citation!

---

### **How to Manage Universal Waste Lamps,** *Amy Cook, Department of Ecology*

7

The last issue of *Shoptalk* carried an article on managing used oil and antifreeze. Here is a follow-up article on managing “Universal Waste Lamps,” specifically fluorescent lights, according to the Washington State Dangerous Waste Rule, WAC 173-303.

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#### **Department of Ecology**

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

Bellevue: (425) 649-7000  
Lacey: (360) 407-6300  
Yakima: (509) 575-2490  
Spokane: (509) 329-3400

To ask about available formats for the visually impaired please call the Hazardous Waste and Toxics Reduction Program at 360-407-6700. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.

*Shoptalk* is produced by the Washington State Department of Ecology's Hazardous Waste and Toxics Reduction Program.

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**Take the Safer Chemistry Challenge**, *Andrew Wineke, Department of Ecology*

9

What is safer chemistry? It's a commitment to finding and using the safest chemicals possible for a product or process. Safer chemistry is about businesses taking the next step in design and manufacturing. And a new program called the Safer Chemistry Challenge will help businesses take that step.

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**Small Quantity Generators May Now Treat Their Own Dangerous Waste**, *Rob Rieck, Department of Ecology*

9

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**How the State and Federal Regulations Differ**, *Aurana Lewis, Department of Ecology*

11

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**Don't be Burned by "DIY" Fireworks**, *Kerry Graber, Department of Ecology*

12

"Do-It-Yourself" fireworks kits ordered off the internet can have tragic consequences for the user and for the supplier.

---

**Sell Waste and Buy Feedstock on Materials Exchange**, *Network for Business Innovation and Sustainability*

13

What could you do with 65 used neoprene wetsuits? How about making glass and wine bottle holders, slipper sole padding, or waterproof bags for kayakers?

## Rule Amendment Process Begins

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Ecology is proposing a package of amendments to the Dangerous Waste Rule, Chapter 173-303 Washington Administrative Code (WAC). The amendments will incorporate changes made at the federal level and add some state-initiated provisions. Ecology plans to formally propose the amendments later this summer.

### Federal Changes

The federal Environmental Protection Agency (EPA) changed parts of the hazardous waste regulations, which means the state must revise our dangerous waste rules to remain consistent with EPA. Among those changes are:

- A new rule simplifying waste management at university and college laboratories.
- Changes to import/export rules.
- An exclusion for refinery wastes recycled in a gasification process.
- Incorporating federal corrections to hazardous waste regulations.
- A few other new, minor federal rules.

### Washington State's Changes

Washington State also proposes these changes:

- Clarifying rules for special waste, including a time limit for special wastes stored at transfer stations.
- Identifying and defining facilities allowed to receive dangerous waste from off-site sources.
- Providing an exclusion for water-contaminated fuels from petroleum fuel storage tank terminals.
- Changing some financial assurance rules, including new rules at corrective action sites.
- Adopting a federal rule to allow enforceable documents in place of a post closure permit.
- Clarifying rules about professional engineers certifying permitted facilities.
- Clarifying the *Chemical Test Methods*, Ecology publication #97-407.
- Correcting technical and editorial typos.

### For More Information

For more information, including a complete list of all changes under consideration, see Dangerous Waste Rule Development, Chapter 173-303 WAC. You can also join the e-mail list (list serv) there.

## Required Training – How to Get There

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It's important to have a training program for handling dangerous waste. Good waste training improves safety, prevents serious accidents, and keeps your business in compliance with the dangerous waste regulations.

### Washington Dangerous Waste Training Requirements

#### Training Program

Employers are responsible for training employees to stay in compliance with the state's Dangerous Waste Regulations. Medium and Large Quantity Generators are required to provide annual training on the safe handling of dangerous waste. The training must be specific to each worker's duties.



*Rob Rieck, rules amendment coordinator, speaks at a March 12 public workshop on the proposed changes to the dangerous waste rules.*

The training program for each employee must be:

- Directed by a person knowledgeable about dangerous waste management.
- Relevant to the employee's responsibilities.
- Reviewed each year.
- Completed within six months of employment in that position. (Someone must supervise the employee until he or she completes training).

Any training that is not specific to the worker's duties does not count toward the training requirements. Start by looking at each employee's role. Are they handling dangerous waste? Are they handling paperwork for dangerous waste? Do they need to know about emergency procedures in case there is a spill or accident?

Front office workers that don't handle dangerous waste may only need training in emergency procedures. Managers may need training in tracking waste disposal paperwork. Anyone that handles dangerous waste must know how to safely handle, accumulate, and dispose of the waste.

Look at each employee's job duties and think about how they work with dangerous waste. Here are some examples:

### Front Office Staff



*Front office staff may only need training in emergency procedures.*

### Shop Workers



*Shop workers may need training in how to move and accumulate dangerous waste.*

### Supervisors



*Supervisors may need training to track paperwork for waste disposal.*

Training must also familiarize employees with emergency equipment and procedures, including:

- Procedures for using, inspecting, repairing, and replacing emergency and monitoring equipment.
- Key parameters for automatic waste feed cut-off systems.
- Alarms or communication systems.
- Response to fires or explosions.
- Response to ground-water contamination incidents.
- Shutdown of operations.

### Training Plan

Large Quantity Generators must complete a written training plan and keep it at the facility. For each position related to dangerous waste, the training plan must include:

- Employee name.
- Job title.
- Job description, including required skills, education, qualifications, and duties.
- Description of the type and amount of first training and continuing training.

Keep all training records. Employee training records must be kept on site for three years after the employee's last day or until the facility closes.

## **Violations**

In 2013, Ecology issued 67 citations at 46 facilities for violating training requirements. These include failure to keep training records or to provide employees with suitable training. Poor training is only the beginning of the problem because it leads to other violations.

Here are some common violations you can avoid with training:

- Lack of proper container labels.
- Containers not closed.
- Containers in poor condition.
- Not enough aisle space between dangerous waste containers.
- Ignitable or reactive wastes are not stored safely.
- Improper disposal of wastes in drains or trash.

## **Spills and Accidents**

Do your employees know what to do in case of a spill? Do they know what to do in an emergency? Serious errors like mixing incompatible wastes can release dangerous fumes, start a fire, or cause an explosion. If your waste ends up in the drain or is otherwise disposed of improperly, it could cause a major incident.

If your facility causes contamination, like improperly releasing waste into the sewer, the ground, or the trash, you can be fined and charged for the entire cleanup. What goes into a storm drain may go untreated into wetlands, rivers, Puget Sound, or the Pacific Ocean. It ends up in fish and our drinking water. Dangerous waste that winds up in a landfill can leach into the groundwater. Incidents like this have harmed people and the environment.

Depending on the type of contamination, cleanups can cost millions of dollars and take years to complete. You don't want your company to be in the news for an embarrassing pollution or safety incident.

## **Safety**

Workers can only handle waste safely when they know its hazards. When there's an accident and they don't know how to respond, the situation can become much worse.

Trained employees are safer in the workplace. They know how to avoid, recognize, and respond to problems. Dangerous waste is exactly what it sounds like – dangerous. Keep workers safe and successful by giving them the knowledge and tools to manage dangerous waste properly.

## **Learning the Hard Way**

Proper employee training can help companies avoid fines and violations. In 2013, a well-known international retailer received unwanted attention in national news for improper handling of hazardous waste. They failed to train employees on safe waste handling and disposal. The consequences will be expensive. The EPA estimates the fines from seven counts of violations plus legal fees will cost the company more than \$100 million. In response, the retailer has added a hazardous waste program that includes employee training.

***Avoid costly fines, dangerous accidents, and public embarrassment.  
Train workers on safe waste handling.***

## Get Help

Ecology offers assistance through self-guided tutorials and other resources on the web. We also offer on-site technical assistance to help businesses comply with the rules and prevent pollution.

Some of our online resources for the safe handling of dangerous waste:

- Training Video: *"Dangerous Waste Containers: An Open and Shut Case"*
- Training Video: *"What's in There?: Labeling Dangerous Waste Containers"*
- Website: Manage Dangerous Waste
- Slideshow tutorials on Dangerous Waste Management
- Instructions: *How to Develop a Written Personnel Training Plan*

Some businesses have asked about the dangerous waste workshops Ecology once offered. Ecology does not currently have plans to revive these statewide workshops. Keep in mind the regulations require that each employee get training specific to his or her individual job duties. Because the workshops did not include training specific to an individual's job, they did not meet the full requirement for annual training.

## Need More help?

Talk to us! Contact your regional Ecology office and ask to speak to a dangerous waste compliance inspector. They can advise you on the types of dangerous waste training your employees need. For ideas on available trainers, talk to others in your industry group or association to find out who they have used.

## New Video Asks "What's in There?"

How do you know what's in a box of cereal? You look at the labels. How do you know what's in a container of dangerous waste? You look at the labels. What happens when the labels aren't there? Workers could be hurt. And, you might get a citation!

Missing or incorrect labels are one of the more common violations found by dangerous waste compliance inspectors. A new Ecology video, *What's in There?: Labeling Dangerous Waste Containers*, publication number 14-04-022, helps workers understand what labels they should be using and how to improve safety in the workplace.

The four-minute video combines live action, photos, and narration to explain labeling requirements in clear language. It emphasizes the three items that must be on every container of dangerous waste:

1. The words "Dangerous Waste" or "Hazardous Waste."
2. Accumulation start date (date the first drop of waste goes into the container).
3. Risk label for the major risks the waste poses (flammable, explosive, etc.).

The video shows common problems with labeling and offers simple solutions. You can watch *What's in There?* from Ecology's YouTube channel. And while you're there, check out Ecology's other video on containers, *Dangerous Waste Containers: An Open and Shut Case*.



*Help keep workers and property safe by properly labeling dangerous waste containers.*

# How to Manage Universal Waste Lamps

The last issue of *Shoptalk* carried an article on managing used oil and antifreeze. Here is a follow-up article on managing “Universal Waste Lamps,” specifically fluorescent lights, according to the Washington State Dangerous Waste Regulations, WAC 173-303.

## Getting a Handle on a Big Problem

Nationally, about 600 million mercury-containing lights are disposed of each year. Most go to solid waste disposal facilities such as landfills and solid waste incinerators. But these types of disposal can release the mercury vapor in fluorescent lamps. Mercury is a neurotoxin, meaning it harms the brain and nervous system. It can build up in the environment, especially in fish, and affect people who eat the fish.

## Don't Put Fluorescents in the Garbage

Since January 2013, businesses in Washington can no longer put compact fluorescent lights, fluorescent tubes, or any other mercury-containing lamp into the garbage. (“Lamp” is the legal term for these items.) Businesses must manage mercury-containing lamps as either dangerous waste or universal waste.

This change is due to the Washington law, *Mercury-containing Lights – Proper Disposal*, reducing the release of mercury into the environment – RCW 70.275, passed by the 2010 State Legislature.

## Benefits of Managing as Universal Waste

Dangerous waste generators can benefit from managing their mercury-containing lamps as universal waste. This is because universal waste:

- Is not counted toward dangerous waste generation totals when determining generator status.
- Does not need to be manifested when sent off-site.
- Can be accumulated on-site for up to one year.

## Who is Affected by the Universal Waste Rule for Lamps?

- All generators of dangerous waste.
- Businesses that generate or accumulate dangerous waste lamps. This may include commercial building/property owners that maintain the lighting for tenants.
- Businesses that provide collection and management services, such as lighting contractors.

As a point of reference, four fluorescent tubes that are four-feet long, weigh about 2.2 pounds. It would take about 400 of those tubes to have 220 pounds and approximately 4,000 of those tubes to have 2,200 pounds. (These weights are the threshold points that can change a facility's generator status.)



*Do this!* The lamps are protected and properly labeled with the accumulation start date. Not much chance of breakage or keeping them longer than one year.



*Don't do this!* These lamps could easily be broken, they aren't labeled, and there is no accumulation start date.

## **Are You a Handler, Transporter, or Destination Facility?**

- Handlers are the generators of the universal waste, or businesses that receive and collect universal waste before shipping to another handler or to a destination facility.
- Transporters transport the lamps between handlers, or to a destination facility.
- Destination facilities recycle the lamps, or provide treatment, storage, and disposal to a dangerous waste landfill.

## **Is Managing as Universal Waste Right for You?**

Analyze your fluorescent lamp usage and determine if managing them as universal waste is right for your business. If it is, you must meet the following requirements:

- You may accumulate lamps for one year from the date they are determined to be a waste. This must be documented. You can do that by marking the accumulation container with the date the first lamp is placed inside (accumulation start date).
- Clearly mark accumulation containers with the words “Universal Waste – lamps,” “Waste Lamps,” or “Used Lamps.”
- Put lamps in a structurally sound container. Keep it closed and sealed when not adding lamps.
- Immediately clean up broken lamps and store the debris in a closed container. Lamps broken outside of their accumulation container must be managed as dangerous waste.

## **Special Recommendation for Small Quantity Generators**

Small Quantity Generators (SQGs) are subject to WAC 173-303-070(8). If an SQG generates dangerous waste lamps in quantities that would put them into a higher generator category, they can choose to manage those lamps as universal waste to retain their SQG status.

## **Lamp Takeback Program Coming**

The law calls for a product stewardship program in the state for mercury-containing lamps. Consumers would be able to bring the lamps to collection sites for recycling and disposal, paid for by the manufacturers.

Ecology's Waste 2 Resources office is working with lamp makers on the state's mercury-containing lights product stewardship program. The stewardship program has been on hold due to questions about the financing. The Legislature just passed a bill deciding the financing, so it should be running by 2015. In the meantime, you can find authorized fluorescent lamp recyclers at 1-800-RECYCLE or EARTH911.com.

Whether you choose to manage your waste lamps as dangerous waste or universal waste, knowing your options and the resources available will help you avoid violating the universal waste lamp rule.

For more information:

- *Mercury-containing Light Bulbs/Lamps*
- *Universal Waste Rule for Lamps, (Publication 98-407c, December 2005)*

## Take the Safer Chemistry Challenge

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*The Safer Chemistry Challenge will host an introductory webinar at 9:30 a.m., Wednesday, May 21. Register at: [www.ecy.wa.gov/programs/hwtr/laws\\_rules/97.407ChemicalTestMethodswithDRAFTrevisions.pdf](http://www.ecy.wa.gov/programs/hwtr/laws_rules/97.407ChemicalTestMethodswithDRAFTrevisions.pdf)*

What is safer chemistry? It's a commitment to finding and using the safest chemicals possible for a product or process. Safer chemistry is about businesses taking the next step in design and manufacturing. And a new program called the Safer Chemistry Challenge will help businesses take that step.

The Safer Chemistry Challenge seeks to recognize and support businesses that are working to produce less-toxic, healthier products, and to promote awareness and best practices in the wider business community. The Washington Department of Ecology and the National Pollution Prevention Roundtable sponsor it.

Creating safer products protects people and the environment. It's also a smart business decision. Safer chemistry protects workers and cuts disposal costs. It reduces a business's exposure to problems complying with environmental protection rules.

The Safer Chemistry Challenge will help companies create action plans, conduct chemical hazard assessments, and connect with industry peers as they seek to reduce their use of hazardous chemicals. It's a free program, open to all businesses that use hazardous chemicals in their products or processes.

The Safer Chemistry Challenge will be working with launch partners and supporting organizations to showcase industry leaders and how they are finding safer alternatives to hazardous chemicals. Companies that demonstrate ongoing leadership in reducing their use of hazardous materials will be honored as "Safer Chemistry Champions."

To learn more about the Challenge, see "Safer Chemistry Challenge" on Green Chemistry at Ecology. Or contact Andrew Wineke at (360) 407-6979, email [andrew.wineke@ecy.wa.gov](mailto:andrew.wineke@ecy.wa.gov).

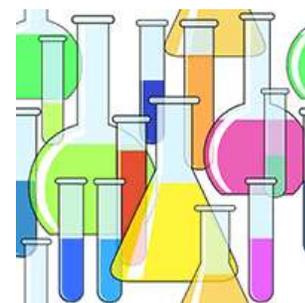
## Small Quantity Generators May Now Treat Their Own Dangerous Waste

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### **New Publication Explains Options and Requirements**

Ecology revised its policy for Small Quantity Generator (SQG) businesses that want to treat their dangerous waste on-site. This is known as Treatment by Generator (TBG). Previously SQGs were not allowed to do this, unless the generator withdrew its conditionally exempt status and followed all requirements for regulated generators. Now Ecology has revised that policy after extensive review and stakeholder input.

Small Quantity Generators can now treat their own waste if they follow the requirements in *Small Quantity Generators Treating Dangerous Waste*, (Ecology publication #14-04-004).



Another publication, *Treatment by Generator*, (Ecology publication #96-412, Rev. Feb. 2014) is intended for larger, regulated generators. It should not be used by SQGs.

## What are the Requirements for SQGs to Treat Their Waste?

SQGs can treat their dangerous waste on-site as long as they follow prescribed requirements for treatment. The requirements help ensure SQGs do treatment safely. The requirements include:

- Use only containers and tanks meeting the standards in the Dangerous Waste Rules, Ch. 173-303 WAC.
- Use dangerous waste labels and major risk labels on containers and tanks.
- Keep a log noting what, when, and how much dangerous waste was treated.
- Follow emergency procedures, such as establishing an emergency coordinator, posting emergency response information, and responding to emergencies.

SQGs that do not follow these requirements must follow the rules for large quantity generators.

## Prohibited Practices

Certain treatment practices are specifically prohibited:

- Land applying wastes for the purposes of dilution or biodegradation.
- Open burning.
- Releasing pollutants to the air.

Most importantly, waste treatment must not cause harm to people or the environment.

## Approved Methods of Treatment

SQGs are restricted to using only Ecology-approved treatment methods. The methods are:

- *Filtration*, (Ecology publication #96-413)
- *Evaporation*, (#96-414)
- *Carbon Adsorption*, (#96-415)
- *Solidification/Stabilization*, (#96-416)
- *Elementary Neutralization*, (#96-417)
- *Separation*, (#96-418)
- *Polymerization*, (#14-04-002)
- *Aldehyde Deactivation*, (#14-04-003)

Ecology previously approved and has had guidance available for the first six methods. The last two – *Polymerization* and *Aldehyde Deactivation* – are newly approved. Polymerization allows generators to harden-off waste resin materials by adding a catalyst. This process is already a common practice in the plastic products industry. Aldehyde deactivation allows chemical treatment of cold sterilants and formalin preservative generated at medical and dental facilities and other laboratories.

## What has to be Reported?

SQGs do not have to get a RCRA site identification number in order to conduct TBG. SQGs that already have a RCRA site identification number need to revise their existing Site Identification Form to indicate TBG activity (Checkbox #7 in Section 10 of the form). Note the type of treatment in the comment section.

## Counting

Count the pounds of dangerous waste prior to treatment and the pounds of any dangerous waste residue after treatment. These pounds are counted when determining generator status. If the total of all dangerous waste exceeds the monthly generation limit for SQG status, the business becomes a Medium or Large Quantity Generator. It must then follow the rules for regulated generators, including having an active RCRA site identification number and submitting a Dangerous Waste Annual Report.

# How the State and Federal Regulations Differ

To better protect our valuable water, air, and land resources, Washington State has dangerous waste requirements that go beyond the federal hazardous waste regulations. (Washington uses the term “dangerous waste” to identify wastes the state considers hazardous.)



## A Brief Summary of the Differences

### Additional Categories of Waste

Washington defines additional categories of wastes as dangerous waste and regulates them more stringently than the federal rules:

- Corrosive solids – solid materials with very high or very low pH.
- Wastes that are toxic to fish. Fish may be susceptible to chemicals at lower levels than other animals.
- Persistent wastes – chemicals that build up in the environment, in people, and in animals.
- Used oil mixed with dangerous wastes.
- Waste containing PCBs.

### More Stringent Waste Management

Washington State has additional management requirements to reduce the risk of dangerous waste being released or exposing people to hazardous chemicals:

- Dangerous waste generators with more than 2,200 pounds of waste accumulated on site must create a training plan and a contingency plan.
- Containers of dangerous waste must have risk labels that identify the major risks of the waste. This helps protect first responders and anyone who is not familiar with the wastes.
- Used oil containers must be kept closed to prevent spills.
- Toxic wastes that give off dangerous fumes must be managed to contain the fumes to prevent injury to workers.

### Learn More in These Publications

#### *Focus on State Dangerous Waste Regulations Protect Human Health and the Environment*

This fact sheet summarizes areas where Washington State regulations expand the protections in the federal program. It reviews additional chemicals regulated in Washington, the more stringent waste management regulations, and the technical assistance available for businesses in Washington.

#### *Differences between Washington State and Federal Rules — Highlights*

This report discusses specific dangerous waste requirements in Washington, including why those regulations were put into place. It reviews federal and state dangerous waste identification, generator management requirements, and recycling or treatment facility requirements for managing dangerous waste. The paper helps explain how to interpret the differences and where to look in the regulations. These publications cannot cover all of the specific dangerous waste management requirements. For specific information on how to manage dangerous waste, follow the Dangerous Waste Regulations, Chapter 173-303 WAC.

## Providing Technical Assistance to Businesses

Washington offers technical assistance to help businesses safely handle dangerous waste and find safer options for chemicals. If you are interested in receiving a technical assistance visit, please contact our pollution prevention staff in your region.

Ecology's staff can also answer questions on Washington State regulations. If you have comments or questions, please contact your regional office and ask to speak to a dangerous waste specialist.

## Don't Be Burned by "DIY" Fireworks

"Do-It-Yourself" fireworks kits ordered off the Internet can have tragic consequences for the user AND for the supplier.

A DIY fireworks kit manufacturer in Tacoma learned this the hard way when repackaging bulk sodium chlorite into small containers. The chemical spontaneously ignited and burned down the building he was renting in Tacoma. When local, state, and federal officers investigated, they found explosive, hazardous, and reactive chemicals on the site. There were also "precursor" chemicals used to make explosives.



*Investigators sift through the debris from a fire caused by sodium chlorite. The chemical, and many others at the site, were being repackaged for mail-order sale. (EPA photo)*

## Messy and Dangerous Chemical Storage

The company had stored incompatible chemicals together. They were kept in a truck, semi-trailer, and motor home near the building. In one trailer, the chemicals were stored alphabetically by name instead of according to their characteristic. Oxidizers and flammables could have been in close contact, along with acids and poisons. If the fire had spread to the storage area, the entire community would have been in danger.

## Used Expired Chemicals

Civil investigators discovered that the company, NW Recycling, purchased expired chemicals from a variety of industries. The company then repackaged them for resale on the Internet as unexpired chemicals. Some of these chemicals were intended for the mail order fireworks kits.

Mail order fireworks are a fairly recent phenomenon. They are illegal in Washington and a number of other states.

## For More Information

- Legal and illegal fireworks in Washington – Washington State Patrol's Fireworks Safety and Injury Prevention.
- Proper storage of dangerous waste – Ecology's Storage and Accumulation.
- Safety and health for employers and workers – Labor and Industries Safety.



*Messy and dangerous chemical storage.*

## Sell Waste and Buy Feedstock on Materials Exchange

What could you do with 65 used neoprene wetsuits? How about making glass and wine bottle holders, slipper sole padding, or waterproof bags for kayakers?

No one likes to throw away valuable materials, but few people in business have the time or resources to look for more creative end uses. The Materials Innovation Exchange (Exchange) helps make these connections and spark innovations.

“The Exchange promotes sourcing of materials locally,” said Ken Zarker, pollution prevention manager in the Department of Ecology. “It supports local markets and provides opportunities for pollution prevention. So one company’s waste becomes someone else’s feedstock.”

The Exchange is a free online resource providing companies with a marketplace for buying, selling, and swapping materials. The Network for Business Innovation and Sustainability developed it as a way to help companies locate useful materials and reach a broad range of potential customers for their own waste materials.

Right now, someone wants to give away 600 pounds of brand-new electro-conductive carbon black. What could you do with that?



## Links to Resources Mentioned in this Issue

### Rule Amendment Process Begins

- **Dangerous Waste Rule Development Chapter 173-303 WAC:**  
[www.ecy.wa.gov/programs/hwtr/laws\\_rules/DWRuleMaking.html](http://www.ecy.wa.gov/programs/hwtr/laws_rules/DWRuleMaking.html)
- **Ecology publication, *Chemical Test Methods*, (#97-407):**  
[http://www.ecy.wa.gov/programs/hwtr/laws\\_rules/97.407ChemicalTestMethodswithDRAFTrevisions.pdf](http://www.ecy.wa.gov/programs/hwtr/laws_rules/97.407ChemicalTestMethodswithDRAFTrevisions.pdf)

### Required Training – How to Get There

- **Ecology’s publication, *How to Develop a Written Personnel Training Plan*, (#12-04-017):**  
<https://fortress.wa.gov/ecy/publications/SummaryPages/1204017.html>
- **Training video: *Dangerous Waste Containers: An Open and Shut Case*:** [www.youtube.com/watch?v=nXgQUy\\_tjJI](http://www.youtube.com/watch?v=nXgQUy_tjJI)
- **Training video: *What’s in There?: Labeling Dangerous Waste Containers*:**  
[www.youtube.com/watch?v=P8OB4ZHIdF4&list=UUXP2cN0Qyp0JfDjU6zD7QaQ](http://www.youtube.com/watch?v=P8OB4ZHIdF4&list=UUXP2cN0Qyp0JfDjU6zD7QaQ)
- **Managing Dangerous Waste website:** [www.ecy.wa.gov/programs/hwtr/managewaste.html](http://www.ecy.wa.gov/programs/hwtr/managewaste.html)
- **Slideshow tutorials:** [www.ecy.wa.gov/programs/hwtr/workshops/index.html](http://www.ecy.wa.gov/programs/hwtr/workshops/index.html)

### New Video Asks “What’s in There?”

- Ecology’s YouTube channel: [www.youtube.com/user/EcologyWA](http://www.youtube.com/user/EcologyWA)
- **Video: *What’s in There?: Labeling Dangerous Waste Containers*:**  
[www.youtube.com/watch?v=P8OB4ZHIdF4&list=UUXP2cN0Qyp0JfDjU6zD7QaQ](http://www.youtube.com/watch?v=P8OB4ZHIdF4&list=UUXP2cN0Qyp0JfDjU6zD7QaQ)
- **Video: *Dangerous Waste Containers: An Open and Shut Case*:** [www.youtube.com/watch?v=nXgQUy\\_tjJI](http://www.youtube.com/watch?v=nXgQUy_tjJI)

### How to Manage Universal Waste Lamps

- ***Shoptalk*, January 2014 issue:** <https://fortress.wa.gov/ecy/publications/SummaryPages/1404001A.html>
- **Washington State Dangerous Waste Rules, WAC 173-303:** <http://apps.leg.wa.gov/wac/default.aspx?cite=173-303>
- **Universal waste:** [www.ecy.wa.gov/programs/hwtr/manage\\_waste/universal\\_waste.html](http://www.ecy.wa.gov/programs/hwtr/manage_waste/universal_waste.html)
- **Universal waste for lamps:** [www.ecy.wa.gov/programs/hwtr/dangermat/universal\\_waste\\_lamps.html](http://www.ecy.wa.gov/programs/hwtr/dangermat/universal_waste_lamps.html)
- **Clean up broken lamps:** [www.ecy.wa.gov/mercury/mercury\\_bulb\\_cleanup.html](http://www.ecy.wa.gov/mercury/mercury_bulb_cleanup.html)
- **WAC 173-303-070(8):** <http://apps.leg.wa.gov/WAC/default.aspx?cite=173-303-070>
- **Reducing the release of mercury into the environment – RCW 70-275:**  
<http://apps.leg.wa.gov/rcw/default.aspx?cite=70.275>
- **Product Stewardship Program:** [www.ecy.wa.gov/programs/swfa/ProductStewardship.html](http://www.ecy.wa.gov/programs/swfa/ProductStewardship.html)
- **Waste 2 Resources Program:** [www.ecy.wa.gov/programs/swfa/index.html](http://www.ecy.wa.gov/programs/swfa/index.html)
- **Mercury-containing lights product stewardship program:** [www.ecy.wa.gov/programs/swfa/mercurylights/](http://www.ecy.wa.gov/programs/swfa/mercurylights/)
- **1-800-RECYCLE:** <https://fortress.wa.gov/ecy/recycle/UISearch/ServiceSearch.aspx>
- **EARTH911.com:** <http://search.earth911.com/>
- **Mercury-containing Light Bulbs/Lamps:** [www.ecy.wa.gov/mercury/mercury\\_light\\_bulbs.html](http://www.ecy.wa.gov/mercury/mercury_light_bulbs.html)
- **Ecology publication, *Universal Waste Rule for Lamps*, (#98-407c, Dec. 2005):**  
<https://fortress.wa.gov/ecy/publications/SummaryPages/98407c.html>

### Take the Safer Chemistry Challenge

- **Chemical hazard assessments:** [www.ecy.wa.gov/programs/hwtr/ChemAlternatives/index.html](http://www.ecy.wa.gov/programs/hwtr/ChemAlternatives/index.html)
- **Green Chemistry at Ecology:** [www.ecy.wa.gov/programs/hwtr/P2/GreenChem/greenchem\\_ecy.html](http://www.ecy.wa.gov/programs/hwtr/P2/GreenChem/greenchem_ecy.html)
- **Contact:** <mailto:andrew.wineke@ecy.wa.gov>

### Small Quantity Generators May Now Treat Their Own Dangerous Waste

- **Small Quantity Generator:** [www.ecy.wa.gov/programs/hwtr/manage\\_waste/rules\\_for\\_sqgs.html](http://www.ecy.wa.gov/programs/hwtr/manage_waste/rules_for_sqgs.html)
- **Treatment by Generator:** [www.ecy.wa.gov/programs/hwtr/manage\\_waste/treatment\\_by\\_generator.html](http://www.ecy.wa.gov/programs/hwtr/manage_waste/treatment_by_generator.html)
- **Ecology publication, *Dangerous Waste: Small Quantity Generators Treating Dangerous Waste*, (#14-04-004):**  
<https://fortress.wa.gov/ecy/publications/SummaryPages/1404004.html>
- **Ecology publication, *Treatment by Generator* (#96-412):**  
<https://fortress.wa.gov/ecy/publications/summarypages/96412.html>

- **Dangerous Waste Rules, Chapter 173-303 WAC:**  
<https://fortress.wa.gov/ecy/publications/SummaryPages/173303.html>
- **Ecology publication, *Treatment by Generator - Filtration* (#98-413):**  
<https://fortress.wa.gov/ecy/publications/SummaryPages/96413.html>
- **Ecology publication, *Treatment by Generator - Evaporation* (#96-414):**  
<https://fortress.wa.gov/ecy/publications/SummaryPages/96414.html>
- **Ecology publication, *Treatment by Generator - Carbon Adsorption* (#96-415):**  
<https://fortress.wa.gov/ecy/publications/SummaryPages/96415.html>
- **Ecology publication, *Treatment by Generator - Solidification/Stablization*, (#96-416):**  
<https://fortress.wa.gov/ecy/publications/SummaryPages/96416.html>
- **Ecology publication, *Treatment by Generator - Elementary Neutralization* (#96-417):**  
<https://fortress.wa.gov/ecy/publications/SummaryPages/96417.html>
- **Ecology publication, *Treatment by Generator - Separation* (#96-418):**  
<https://fortress.wa.gov/ecy/publications/SummaryPages/96418.html>
- **Ecology publication, *Treatment by Generator - Polymerization* (#14-04-002):**  
<https://fortress.wa.gov/ecy/publications/SummaryPages/1404002.html>
- **Ecology publication, *Treatment by Generator - Aldehyde Deactivation* (#14-04-003):**  
<https://fortress.wa.gov/ecy/publications/SummaryPages/1404003.html>
- **RCRA Site ID#:** [www.ecy.wa.gov/programs/hwtr/waste-report/notification.html](http://www.ecy.wa.gov/programs/hwtr/waste-report/notification.html)
- **Monthly generation limit for SQG status:**  
[www.ecy.wa.gov/programs/hwtr/manage\\_waste/which\\_rules\\_apply\\_amount.html](http://www.ecy.wa.gov/programs/hwtr/manage_waste/which_rules_apply_amount.html)
- **Dangerous Waste Annual Report:** [www.ecy.wa.gov/programs/hwtr/waste-report/what\\_is\\_AR.html](http://www.ecy.wa.gov/programs/hwtr/waste-report/what_is_AR.html)

#### How the State and Federal Regulations Differ

- **Federal hazardous waste regulations:** [www2.epa.gov/laws-regulations/summary-resource-conservation-and-recovery-act](http://www2.epa.gov/laws-regulations/summary-resource-conservation-and-recovery-act)
- **Ecology publication, *Focus on State Dangerous Waste Regulations Protect Human Health and the Environment*, (#13-04-004):** <https://fortress.wa.gov/ecy/publications/SummaryPages/1304004.html>
- **Ecology publication, *Differences Between Washington State and Federal Rules – Highlights*, (#96-401):**  
<https://fortress.wa.gov/ecy/publications/summarypages/96401.html>
- **Dangerous Waste Regulations, Chapter 173-303 WAC:**  
<http://apps.leg.wa.gov/wac/default.aspx?cite=173-303>
- **Technical Assistance:** [www.ecy.wa.gov/programs/hwtr/reducewaste.html](http://www.ecy.wa.gov/programs/hwtr/reducewaste.html)
- **Pollution Prevention staff:** [www.ecy.wa.gov/programs/hwtr/P2/contacts.html](http://www.ecy.wa.gov/programs/hwtr/P2/contacts.html)

#### Don't be Burned by "DIY" Fireworks

- **Washington State Patrol's Fireworks Safety and Injury Prevention:** [www.wsp.wa.gov/fire/fireworks.htm](http://www.wsp.wa.gov/fire/fireworks.htm)
- **Ecology's Storage and Accumulation:** [www.ecy.wa.gov/programs/hwtr/manage\\_waste/accumulation.html](http://www.ecy.wa.gov/programs/hwtr/manage_waste/accumulation.html)
- **Labor & Industries Safety web page:** [www.lni.wa.gov/Safety/](http://www.lni.wa.gov/Safety/)

#### Sell Waste and Buy Feedstock on Materials Exchange

- **Materials Innovation Exchange:** [www.materialsinnovationexchange.com/](http://www.materialsinnovationexchange.com/)
- **Network for Business Innovation and Sustainability:** <http://nbis.org/>