

Shoptalk

Dangerous Waste & Pollution Prevention

WINTER 2016 ISSUE

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To learn more, visit
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Shoptalk at:

[www.ecy.wa.gov/
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DEPARTMENT OF
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State of Washington

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ProCoat, Inc. Saves \$43,000 a Year With Waste Reduction Practices

The company

A worldwide supplier of decorative and protective finishes, Protective Coatings, Inc. (ProCoat), has made some big changes at their Kent facility. This facility operates 24 hours a day and serves the aerospace, electronics, computer, medical, and recreational industries.

ProCoat's motivation for change came from a desire to run a business that demonstrates responsibility to its 325 employees and the environment.

Real results

Starting in 2010 ProCoat worked with Department of Ecology, while also doing their own investigations for ways to cut waste and operate more efficiently. And it's paying off—the company's efforts are yielding annual reductions of:

- 262,000 pounds of dangerous waste.
 - 21,000 kilowatt-hours.
 - 15,000 pounds of solid waste.
- This amounts to saving \$43,600 every year!



Workers at solvent recycling still.

How they did it

With Ecology's help, ProCoat conducted an audit on their compressed air delivery system. After leaks were found and fixed, the company saved an estimated 121,000 kilowatt-hours of electricity annually—that's \$10,000.

To tackle dangerous waste, ProCoat took a three-pronged approach:

1. Investing in a new solvent still, which allowed the company to recycle solvent. This is eliminating 27,000 pounds of dangerous waste and saving roughly \$18,000 in virgin solvent purchases.



Worker at plating tank.

\$39,500 of annual savings. The company is now working with their waste vendor to find another business that could re-use the blast media in a cement kiln.

Commitment to continual change
ProCoat plans to buy a larger filter press to replace their current one, which is operating at capacity. The filter press reduces waste weight and volume by pressing water out of wet sludge.

An environmental education display for their employees features an electronic suggestion box which invites ideas on new ways to improve.

- ProCoat employees use a solvent still to recycle used solvent.
- Starting batch-treating wastewater with chrome, reducing disposal costs by \$10,000 a year.
 - Repurposing chemicals that previously were used in production for use in their on-site wastewater treatment system. They took “spent” chemicals from their production line that could no longer be used in manufacturing (due to various customer specifications) and repurposed them for wastewater treatment. This saved on disposal fees and the cost of treatment chemicals—about \$4,600 per year.

All told, these efforts helped reduce the company’s annual generation of dangerous waste by about 55,000 pounds.

After those initial gains, Ecology’s Toxics Reduction Specialists noted that the largest waste stream on site was ProCoat’s blast media. Ecology’s team suggested the media be tested to see if it actually needed to be handled as dangerous waste. The test revealed it didn’t designate as dangerous waste. The blast media reduction accounted for a 27.8 percent drop in ProCoat’s total dangerous waste generation—roughly 180,000 pounds and another

ANNOUNCEMENTS

Dangerous Waste Annual Reports Due March 1:

2015 Dangerous Waste Annual Reports due March 1, 2016

If your site had an active [RCRA Site ID Number](#) in 2015, you must submit a 2015 Dangerous Waste Annual Report by March 1, 2016. Ecology sent reminder notices in early January.

To get started now on your Annual Report, go to the [TurboWaste website](#) and click on the orange “Enter TurboWaste” button.

For more information and important updates, check the [Dangerous Waste Annual Report website](#).

If you have questions about designation, compliance issues, or generator status, please contact your regional Ecology office.

If you have questions about your Uniform Hazardous Waste Manifest, please contact your waste service provider.



Tier Two Reports Due March 1, 2016

Now that the New Year is here many businesses are again facing a variety of reports and deadlines in the approaching months. If your facility stores hazardous substances, it's time to review inventory records to see if you meet the reporting requirements for Tier Two—Emergency & Hazardous Chemical Inventory Reporting.

Is my facility required to report?

You must report if you had 10,000 pounds or more of chemicals or hazardous substances on site in 2015, such as gasoline or diesel. The Emergency Planning and Community Right to Know Act (EPCRA) defines hazardous substances as chemicals present in the workplace that are capable of causing harm. Any product that requires a Material Safety Data Sheet is potentially reportable.

Chemicals classified as Extremely Hazardous Substances (EHS), such as ammonia and chlorine, are reportable at much lower thresholds—ammonia at 500 pounds and chlorine at 100 pounds. These requirements apply to the maximum amount of a chemical or product on site at any one time during the previous calendar year.

Who needs the report and why?

The federal government created EPCRA, also known as SARA Title III. The Washington State Emergency Response Commission adopted the same reporting requirements. EPCRA Section 312

requires a facility storing hazardous substances to file a Tier Two – Emergency & Hazardous Chemical Inventory report each year to the State Emergency Response Commission (SERC), the Local Emergency Planning Committee (LEPC), and the local fire department.

The Commission and local agencies use this information for pre-disaster planning and local emergency response purposes. EPCRA is an integral part of successful disaster prevention, preparedness, and response. The Department of Ecology manages EPCRA reports on behalf of the SERC.

How do I report?

The quickest and most efficient way to report is via [Tier Two Online](#). This online reporting application allows you to:

- Easily upload previously submitted data.
- Quickly update your information.
- Submit directly to the SERC.
- Print completed forms to send to your local agencies and for your records.

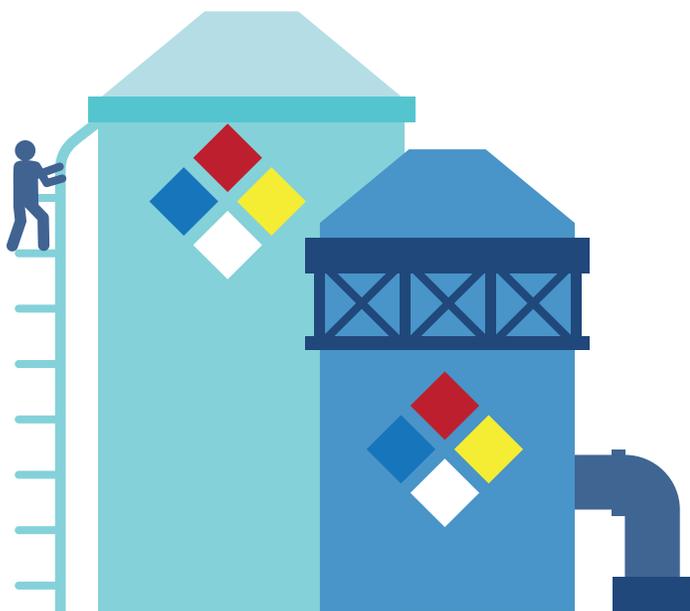
Visit the [EPCRA website](#):

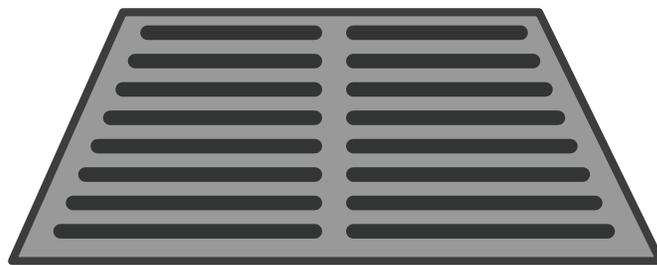
- To determine if your company needs to report by March 1, 2016.
- To register for Tier Two Online.
- For a current list of LEPCs.
- For more information on other EPCRA reporting requirements.

Our Community Right-to-Know specialists can provide regulatory assistance and technical support. Contact us at epcra@ecy.wa.gov or call 800-633-7585.

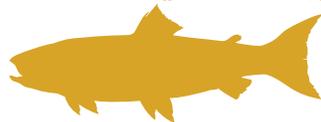
Tier Two Report Changes

The Washington State Emergency Response Commission recently made changes to the Tier Two reporting form and redesigned the online reporting application. If you have filed previously, you will notice new fields on the reporting form. Guidance is available within the online application. Visit our [EPCRA page](#) for information on additional reporting requirements.





DUMP NO WASTE



DRAINS TO STREAM

Identifying Storm Drains Can Prevent Pollution

Most storm drainage systems are designed to drain stormwater—untreated—into rivers and streams. If hazardous materials spill at your facility, are you prepared to respond? Have you mapped the location of your storm drains? Having a plan and acting quickly can prevent chemicals from reaching the storm drainage system.

Good dangerous waste management can help prevent a small spill from turning into a dangerous and expensive contamination problem. Medium and large quantity generators of dangerous waste must appoint an emergency coordinator who is familiar with:

- Operations and activities at the site.
- Location and hazards of all hazardous products and wastes handled on site.
- Location of all records.
- Layout of the facility (inside and outside).
- Emergency response agreements that have been made with state or local authorities such as the fire department.
- Outside emergency response contractors who can assist in the event of a spill.
- Proper state-agency notifications.

Use a map or diagram

An important aspect of knowing the entire facility layout includes identifying the locations of storm drains.

Boeing's catch basin covers feature a drawing like

the one on the following page to help employees find nearby storm drains quickly in the event of a spill.

As a pollution prevention control practice, Boeing Bellevue has developed a system that uses magnetic catch basin covers. They hang on walls inside the facility and show the locations of nearby storm drains. In the event of a spill, emergency responders can pull a cover off the wall and use the map it displays to locate the nearest drain to seal it off. Best Management Practices like this can make a huge difference during an emergency, when a quick response time is crucial.

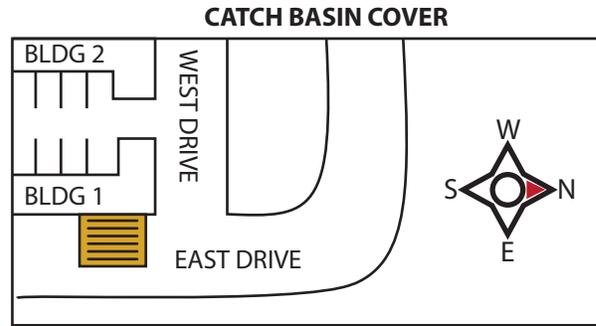
If there's a spill, always remember to:

- Call 911 immediately if you feel the spill is an emergency situation. This will activate local police, fire, or medical responders.
- If safe, take action to control the spill by shutting off valves or up-righting spilled drums. (Always remember to wear appropriate personal protective equipment such as gloves, safety glasses, steel-toed boots, etc.)
- If hazardous materials or wastes are moving toward storm drains, use a storm drain inlet cover or other emergency equipment to prevent the substance from entering the drain.
- If the spill reaches water, immediately call the U.S. Coast Guard National Response Center at 1-800-424-8802 and the Washington Department of Emergency Management at 1-800-OILS-911.



Learn more

- [Plan for dangerous waste emergencies](#)
- [Go through an emergency planning checklist](#)
- [Read about spill reporting under the dangerous waste regulations](#)
- [Read state regulations on spills and discharges into the environment](#)



Boeing's catch basin covers feature a drawing like this to help employees find nearby storm drains quickly in the event of a spill.

Increase Efficiency With Spray Training for Paint Shops, Auto Body Shops, and Others

This winter, the [Pollution Prevention Resource Center \(PPRC\)](#) and Ecology will offer several opportunities to take the Spray Techniques Analysis and Research (STAR) training. This hands-on training uses virtual simulation to enhance the performance of spray technicians and improve overall efficiency of manual spray coating operations.

On average, STAR-trained painters improve efficiency by over 20 percent. This means a shop of 10 painters can save over 500 gallons of paint and between \$50,000 and \$100,000 each year.



The STAR training system uses virtual reality in place of real paint so participants can get data-driven feedback on their performance.

Participants learn proper gun distance and orientation, overlap and edge painting techniques, and how to measure coat thickness and adjust the gun to achieve proper air and fluid pressure. The training also addresses good equipment maintenance.

[Watch a quick video of the STAR training system:](http://iwrc.uni.edu/services/painter-training/painter-training-products/virtualpaint/gallery/iwrc-video/)
<http://iwrc.uni.edu/services/painter-training/painter-training-products/virtualpaint/gallery/iwrc-video/>

Improving spray efficiency can help your business reduce labor and material costs, increase worker safety, and improve air quality.

Since STAR trainings started in 2008, they have saved businesses 40,000 gallons of paint and over \$10 million! They've also reduced 250,000 pounds of air emissions.

To schedule training, contact Ken Grimm, Industry Outreach Manager:
206-352-2050, kgrimm@pprc.org

This training is great for industrial paint shops, auto collision repair shops, and any other business that sprays paint or coatings to metal, plastic or wood.

Choosing Safer Choice Products for Business and Home

Every day, we face a barrage of messages telling us what to buy. How can we determine if the products we purchase are safe to use in our businesses or homes? Luckily, the Environmental Protection Agency (EPA) revamped their efforts to label products they certify as safer for human health and the environment.

For the past 15 years qualified consumer products were labeled with the Design for the Environment label. Redesigned, it's now called Safer Choice. The new label tells consumers the product meets strict safety criteria.

Each ingredient in a Safer Choice product must be the safest one possible—a standard that sets it apart from other green certification programs, and products with vague or misleading claims of environmental friendliness. Safer Choice products must also be proven effective. Chemical ingredients are assessed for hazards like:

- Whether they are known to cause cancer.
- Reproductive toxicity.
- Persistence, or how long they linger in the environment.

More than 2,000 products currently qualify to carry the Safer Choice label. Safer Choice products can be found at most retail stores. The EPA also evaluated



The Safer Choice label displayed on common products. Photos credit: consumerreports.org

a multitude of products meant for business use. From carpet cleaners to solvents, you can find information about Safer Choice options in the [EPA's online database](#).

Applying for the label is voluntary for manufacturers. Learn more about qualifying and applying for the Safer Choice label by visiting the [EPA's Resources for Manufacturers website](#).

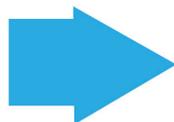
Any chemical manufacturer can submit their safer chemicals to EPA for review to be listed in the [Safer Chemical Ingredients List \(SCIL\)](#). Adding chemicals to the SCIL encourages innovation and growth in safer products and increases markets for businesses.

So why is buying Safer Choice important? State and federal agencies are learning more about toxic chemicals used in everyday products. Toxic chemicals have been found to be harmful to humans and animals, and may linger in the environment for a long time. By choosing to purchase safer products, you are

helping protect the health of your employees and the environment.



Recognized for Safer Chemistry
www.epa.gov/dfc



The EPA's Design for the Environment label is now called Safer Choice.

2015 Safer Chemistry Champion Awards

In October Ecology recognized four organizations as Safer Chemistry Champions for their contributions toward reducing toxics and advancing green chemistry. Members of [Northwest Green Chemistry's](#) advisory council reviewed the applications and helped select the following winners:

[Seattle Gymnastics Academy](#)

After learning about the potential health impacts from toxic flame retardant chemicals in the foam used to cushion aspiring gymnasts' falls, Seattle Gymnastics Academy tested dust and its employees' skin for these chemicals. The Academy then became the first gym in the United States to replace all of its loose foam with a flame retardant-free alternative.

[Tidal Vision](#)

Working with Washington shellfish processors, this Juneau, Alaska-based company developed an innovative method to extract chitin from crustacean shells. The process turns crab shell waste into a valuable product used in wastewater filtration systems, sponges, and textiles. Tidal Vision also worked with a tannery in Buckley to create a tanning process for salmon skin that uses only food-grade ingredients, allowing them to be made into wallets or leather sheets.

[Genzyme](#)

This Lynnwood-based pharmaceutical firm began an orphan chemical program last year to allow off-spec, expired, or rejected chemicals to be used by other companies or research institutions, leading to major cuts in its hazardous waste generation and disposal costs.

[University of Washington, Department of Environmental and Occupational Health Sciences](#)

Department staff assessed their laboratory practices to evaluate their chemical use, energy consumption, and waste generation. They identified two chemicals of concern and used GreenScreen™ and Ecology's Quick Chemical Assessment Tool (QCAT) to explore the hazards

associated with the chemicals and to understand potential effects on worker health and the environment. The screenings also allowed them to compare possible alternative chemicals to avoid a regrettable substitution—replacing a hazardous chemical with one that has equally hazardous or unknown effects. The Department also developed a Green Labs webinar series to share what they learned.

Award ceremony

The presentation of the awards took place in Seattle as part of the [Pacific Northwest Pollution Prevention Resource Center's](#) annual Roundtable. Rob Duff, Governor Jay Inslee's senior policy advisor on natural resources and the environment, gave the keynote address, praising the winners' creativity and dedication. "By finding safer ingredients, reducing chemical use, and becoming more efficient, these organizations are models for their industries," Duff said. "They show that protecting people and the environment is smart business."

[Learn how your organization can apply to be a Safer Chemistry Champion!](#)



Safer Alternatives Survey Results

Did you participate in our 2015 Safer Alternatives survey? Thanks for your input! See what businesses in Washington are saying in this quick snapshot of results. For more detail about the survey results, contact Tom Boucher at 360-407-6462 or thomas.boucher@ecy.wa.gov.

What Businesses Say About Switching From Toxics to Safer Alternatives

*Data based on 2015 survey

94%

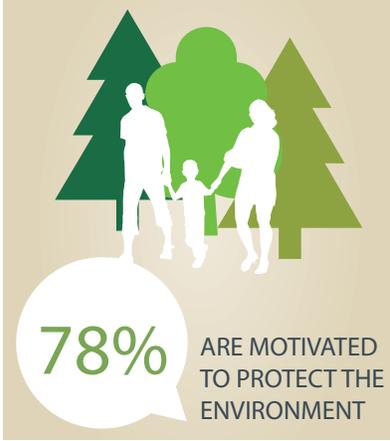
of Washington businesses are looking toward safer alternatives to harmful chemicals



SAY EMPLOYEE SAFETY IS THE STRONGEST MOTIVATOR



SAY BUSINESS PEERS ARE THEIR MOST VALUABLE ADVICE SOURCE



ARE MOTIVATED TO PROTECT THE ENVIRONMENT

BARRIERS TO SWITCHING:

COST

CUSTOMER PREFERENCE

QUALITY

Our specialists can help!

conduct pilots

ensure quality

transition easily



No inspections. Just solutions.



Contact us to get started:
360-407-6700



Protect Washington's Waters—Tips to Prevent Toxic Spills During Floods

Usually we don't think about flooding or other natural disasters until they happen. In late November 2015, a deluge of rain hit Western Washington, causing several rivers to flood for days at a time. Even if your business isn't located in a [river floodplain](#) or a [tsunami zone](#), man-made floods or burst pipes can cause damage and potential for harm to people or the environment if dangerous waste is spilled.

You don't have to be a manufacturer to have dangerous waste after a flood. Retailers might have to dispose of flood-damaged hazardous products, such as garden pesticides or pool chemicals. Your business can help prevent toxics from entering the environment by taking some time to prepare for floods.

Here are some tips to get you started:

- Reduce your stock of hazardous materials. You can offer up unused materials and wastes on exchange services, such as [IMEX](#).
- Take an inventory: know what hazardous materials you are storing, their hazards (flammable, explosive, etc.), and their safe handling, disposal, and cleanup. If you store [large amounts of certain chemicals](#), you may need to [submit a Tier Two report](#) so emergency responders are informed of what's on site at your facility.
- Try to avoid storing hazardous materials by choosing the [safest products possible](#).
- [Secure your waste](#) and products: make sure your equipment, supplies, drums, and other containers can't float away or break open. Check with your



local Fire Marshal on securing aboveground tanks (such as propane tanks).

- If practical and safe (according to fire or other local codes), store materials above flood levels. Use waterproof containers, second story storage, or mezzanines.

After a flood, return to your business location only after local authorities have issued an "ALL CLEAR." For guidance on what to do with hazardous wastes after floods, please read our [flood debris guidance](#).

Accommodation Requests:

To request ADA accommodation including materials in a format for the visually impaired, call the Hazardous Waste and Toxics Reduction Program, 360-407-6700. Persons with impaired hearing may call Washington Relay Service at 711. Persons with speech disability may call TTY at 877-833-6341.