

Hazardous Waste

UPDATE

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Hazardous Waste Update is the Thurston County Business Pollution Prevention Program newsletter for small quantity generators of hazardous waste, such as auto recyclers and auto shops, print shops, schools, painters, fire chiefs, dentists, pesticide applicators, and marinas.

To be taken off or added to this mailing list, or to request this newsletter in an alternative format, please call 360-754-4111. The TDD line is 360-754-2933.

The Business Pollution Prevention Program, run by the Thurston County Public Health & Social Services Department, Environmental Health Division, works with businesses to reduce, safely store, and properly dispose of small quantities of hazardous waste. The county provides technical assistance, workshops, fact sheets, a disposal site, and a Hazardous Waste Line at 360-786-5457.

Recent Changes to the Washington State Dangerous Waste Regulations

New Year, New Updates

In late 2004, the Department of Ecology adopted updates and revisions to Chapter 173-303 of the Washington Administrative Code, or WAC, which contains the guidelines and requirements for proper hazardous waste management. These rules, which went into effect January 1, 2005, apply to businesses that generate hazardous waste, as well as to facilities that treat, store, recycle, or dispose of hazardous wastes.

The intent of this rule adoption is:

- To bring the current guidelines into agreement with federal hazardous waste management requirements; these revisions make Washington State rules consistent with federal guidelines issued by the EPA.
- To update state-specific requirements, including clarification of current rule content and other technical improvements related to record keeping and reporting.

Do These Changes Affect You?

Notable updates to the rule include:

- **Managing mercury-containing equipment as "universal waste"**
Universal wastes are hazardous materials

Waste Management: Cleaning Up Wash Water Problems

Clean Machines....Dirty Water

Does your business wash vehicles, landscaping equipment, machines, and other equipment every day, or every week? Whether you wash equipment daily or monthly, before your next washing project, stop to think about how your

washing technique could impact water resources, especially near wellheads, storm drains, or surface waters.

Washing vehicles and other equipment can introduce pollutants such as oil and grease, solids and sediment, heavy metals, soaps and detergents, and soluble organic materi-

als into stormwater. If released untreated, contaminated stormwater can pollute streams, bays and the groundwater, affecting salmon, shellfish harvesting and drinking water.

The Options

The central issues concerning vehicle and equipment washing are collection, treatment, and disposal or discharge. The two most common methods are zero discharge systems and systems that discharge to the sanitary sewer. Direct discharges to the ground are permitted only in very specific cases.



Wash water should never be discharged to a storm sewer.



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Waste Management

Zero Discharge or Closed-Loop Water Recycling System

In a zero discharge system, all wash water is collected, treated, and reused. The wash water is treated by removing solids and other pollutants before it is re-circulated or stored for reuse. These systems are ideal for use in areas not currently served by municipal sewers and for areas with sensitive ground and surface water.

Discharges to a Municipal Sanitary Sewer System

The LOTT Wastewater Management Partnership, our local sewer authority, has specific discharge requirements that must be met. Businesses seeking to discharge wash water into the municipal sewer system should contact representatives from LOTT at (360) 664-2333 x108 before introducing wastewater into the system. Unlike the municipal sewer system, the storm sewer system discharges stormwater directly to local surface water without treatment. Therefore, wash water should **never** be discharged to a storm sewer.

Equipment washing operations that discharge to the municipal sewer system can have several variations. Equipment can be washed at a commercial washing facility, inside a building designated for washing, or on a **covered** concrete pad with bermed edging to prevent run off. All wash water is collected and carried through a treatment system before discharge. Outdoor washing areas should be covered to prevent excessive stormwater from entering the sanitary sewer system.

Gravity or oil/water separators are the most common treatment technologies. Grit traps can remove larger solids before entering the gravity separator.

Containment sumps treat wash water by settling out solids and allowing petroleum and other oils to separate from the water before discharge to the municipal sewer through an outlet valve. Containment sumps controlled by a valve also prevent stormwater from entering the municipal sewer on uncovered wash pads.

Discharges to the Ground

Direct discharges to the ground for large washing operations will require a permit from the Department of Ecology or local jurisdiction. A closed-loop water recycling system may be required in areas with very shallow and permeable aquifers. Any wash water discharged to the ground must be treated to prevent contamination of local groundwater.

In specific cases, limited discharge of water not containing soaps, oils, and detergents to a large grassy area may be acceptable. The grassy swale or infiltration area should be large enough for all discharged water to seep into the soil and not run into surface waters.

Best Management Practices

The above guidance is a general overview of collection, treatment, and disposal options for commercial washing activities. Particular requirements and system specifications need to be researched before any system can be designed and installed.

Any washing activity, large or small, should consider the following recommended practices.

- Self-contained water collection re-circulation systems have become more efficient, affordable, and portable. These may be ideal for small washing operations, or for washing in sensitive areas without municipal sewer access.

- Small amounts of wash water can be collected in a dead-end containment sump, and pumped into drums, a mobile tank, or into a sanitary sewer connection. LOTT will need to permit discharge of collected material to the sewer.
- Highly caustic cleaners, chlorinated solvents, and metal brighteners may cause wash water to designate as a hazardous waste. Soaps and detergents cause oil-water separators to be less effective and will not be removed by the separator. If necessary, use a biodegradable, phosphate-free soap sparingly.
- Steam and pressure cleaning with hot water are not recommended. Both can concentrate pollutants and introduce paints, solvents, and metals into the wash water. Wash with cold water only.
- Activities such as oil changing and engine degreasing should **never** occur in designated washing areas. Consider using citrus-based cleaners and rags to clean engines and oily equipment before washing. Rags can be cleaned and reused.

Clean Water for Wildlife and People

South Puget Sound has a rich and interconnected system of water resources and dependent wildlife. As a business contributing to the water cycle, you can help protect these resources. Each site has different characteristics and constraints that require thoughtful design for collecting and treating wash water. If you are interested in modifying an existing equipment washing system or developing new equipment washing operations, call the Business Pollution Prevention Program at (360) 786-5457 for free assistance about washing options that protect local waters. ♦

Report from the Field: Doing Business on Thurston County Shorelines

A Highly Sensitive Resource

Around the Puget Sound region, marine shorelines are some of the most desirable and sensitive lands sought for development. Because of their carefully balanced ecology and critical role in supporting salmon and shellfish, shorelines are closely regulated. While many marine shoreline areas are designated only for outdoor recreation pursuits or residential housing, some areas have been set aside for commercial businesses. For businesses currently operating or those planning to locate into a shoreline area, it is essential that any hazardous materials



All hazardous materials and wastes must be carefully managed around delicate shoreline areas.

or hazardous wastes be managed properly to avoid contamination of these delicate areas.

During the summer of 2004, specialists from the Business Pollution Prevention Program, an element of the Thurston County Environmental Health Division, carried out a technical assistance campaign for businesses operating adjacent to or in close proximity to marine shorelines. This campaign is the latest effort in an ongoing program that provides hazardous waste management assistance to businesses operating in sensitive environmental areas.

The first task was to identify shoreline businesses that commonly generate hazardous waste. Twenty-one businesses were listed. Businesses included several automotive repair shops and marinas, as well as nurseries, log yards, and a power generating station. In some areas near the Port of Olympia, visual inspections of local stormwater drains were necessary to determine where stormwater drains directly to Budd Inlet.

Initial inspections revealed that the majority of businesses (16 of 21, or 76%) were properly storing, handling and disposing of any hazardous products or hazardous wastes. Five businesses needed to improve some areas of hazardous waste management, including providing proper secondary containment (5 of 21 businesses) and properly handling hazardous materials (4 of 21 businesses). Some businesses had more than one management area to address. At the conclusion of follow-up visits, all busi-

nesses achieved or were pending compliance with the Thurston County Nonpoint Source Pollution Ordinance.

In addition to ensuring that businesses were managing hazardous materials and wastes properly, specialists made recommendations about improvements to recycling, record keeping, spill preparedness, and general health and safety. Specialists noted 43 opportunities to implement various best management practices, such as recycling fluorescent lamps, creating and posting a spill plan, or properly labeling waste containers. Follow-up contact with these businesses found that 32 of the 43 recommendations had been successfully completed.

Safer Shorelands

Because of this campaign, five businesses installed additional secondary containment for an estimated 1,500 gallons of hazardous products and wastes. This containment significantly reduces the risk that hazardous materials or wastes will spill or leak into local shoreline soils or enter marine waters through runoff to the local stormwater sewer system. Initial visits discovered that 20 of the 21 facilities operate near local stormwater sewer systems that drain directly to marine waters. This finding underscores the fact that secondary containment and proper handling of hazardous materials is critical around shoreline areas.

Forty-nine percent of businesses returned the campaign survey provided during the technical assistance visit. Responses indicate that owners or managers of businesses along marine shorelines are aware of how easily marine water could be contaminated if hazardous materials are not handled correctly. Respondents identified understanding of regulations and safety/liability as the aspect of hazardous waste management that concerned them most.

At the conclusion of the campaign, all participating businesses were generally acting as good neighbors with local marine life and residents by promoting and protecting the quality of local marine waters and near shore environment. Businesses accomplished these goals through direct changes in hazardous material storage, handling, or disposal practices. In the future, owners and operators can also refer to educational material that was distributed during each visit. Proper hazardous material and waste management not only protects the local environment and neighbors, but also safeguards the health of employees and customers in these businesses. ♦

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Recent Changes

that have the potential to be recycled. Designating more materials as universal waste encourages their recycling by streamlining the requirements. Mercury-containing equipment is defined as a device that contains mercury as part of normal functioning. Devices affected by this designation include thermometers, manometers, relay switches, barometers, and pressure relief gauges. Thermostats, fluorescent lamps, and batteries that contain mercury were already included under the universal waste rule.

- **Used Oil and Small Quantity Generators**

The revised rule clarifies how used oil generated by small quantity generators must be managed. Under the new rule, all used oil generated by a small quantity generator that is burned for energy recovery or re-refined into higher grades of oil must be handled according established used oil management standards. These standards address storage requirements, secondary containment requirements, transportation guidelines, and used oil specifications.

- **Waste Designation, Based on Generator "Knowledge"**

The updated regulations more clearly define "knowledge" as it relates to what level and type of information is necessary and sufficient to designate whether a generated waste is hazardous without testing the waste. Generators should refer to WAC 173-303-300 for further explanation on how reliability and sufficiency of "knowledge" is established and tested.

- **Spills from Tanks**

Reporting requirements for tank spills were revised to be consistent with the reporting requirements for releases of any dangerous wastes.

Please refer to Ecology Publication No. 04-04-035, [Highlights of the 2005 amendments to the Dangerous Waste Regulations in effect January 1, 2005](#), for a complete overview of **all** revisions, clarifications and updates made during this recent rule adoption.

You can also view the updated version of the Dangerous Waste Regulations by directing your Internet browser to <http://www.ecy.wa.gov/pubs/9291.pdf>. All references to current requirements or guidelines are based on this document, available both electronically and in print form.

Keeping Up With Changing Requirements

Generators can more appropriately, and, in some cases, more easily manage generated hazardous waste by remaining current with the latest changes to the dangerous waste regulations. Seek assistance if you have questions about how any part of the regulation applies to your business.

Direct questions about these updates to the Hazardous Waste and Toxics Reduction program at the Department of Ecology, (360) 407-6300. Specialists with the Business Pollution Prevention program, (360) 785-5457, of the Thurston County Public Health Department can also address questions about the dangerous waste regulations. ♦



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