State Dangerous Waste Regulations Protect Human Health and the Environment

Tourism and recreation. Clean air and clean water**.** These elements help define Washington's economy and quality of life. We don't want toxic chemicals such as used antifreeze, pesticides, ammonia, polychlorinated biphenyls (PCBs), sandblast grit, or pharmaceutical wastes threatening that quality of life. Federal regulations don't protect against all of these chemicals. Thankfully, state law does.

In 1985, Washington's Legislature passed the state's Hazardous Waste Management Act, a comprehensive approach to safely manage dangerous waste[1], while conserving the natural, economic, and energy resources of the state.

In addition to regulating all wastes that the U.S. Environmental Protection Agency (EPA) calls "hazardous," the Department of Ecology (Ecology) also regulates other "dangerous" chemicals, including those known to harm Washington's salmon, shellfish, and other aquatic species. State law also addresses some gaps in federal law that don't adequately protect Washington's people or the environment, such as:

- Reducing the chance of injuries and spills by requiring **all** businesses to label dangerous waste containers, and by requiring generators regulated as medium-sized to have spill plans and worker safety training. Under federal regulations, the plans and training are only required of large-sized generators.
- Helping businesses comply with the dangerous waste regulations by giving technical assistance, rather than only doing formal compliance inspections and enforcement.

Additional Chemicals Regulated in Washington

Washington's regulations are more protective than federal law, as described below.

Corrosive solids – Improperly handled wastes with a very high or very low pH level can cause burns, contaminate water supplies and topsoil, destroy crops, seriously damage or destroy structures, and kill fish and other animals.

Why it Matters

Washington's more stringent regulations of dangerous waste protects businesses that rely on a clean environment. They also help create recycling markets by avoiding contamination of materials that can be recycled or reused. For example:

- Toxics in the water directly affect Puget Sound shellfish growers. State regulations help keep toxics out of our waterways and away from salmon, oysters, and geoducks.
- Companies with industrial boilers can sell their leftover ash (a solid corrosive waste) to concrete and wallboard producers. Cement manufacturers can also recycle used sandblasting grit from contractors, painters, and ship builders into their product.
- The state's requirements also help protect used oil recyclers from receiving used oil contaminated with dangerous waste. This makes the state's re-refined oil cleaner, cheaper to produce, and a more attractive product.

For more Information

Visit Ecology's website at www.ecy.wa.gov/programs/hwtr/managewaste.html

Special Accommodations

If you need this document in a format for the visually impaired, call 360-407-6700. Persons with hearing loss, call 711 for Washington Relay Service. Persons with a speech disability, call 877-833-6341.

[1] Washington law uses the term *dangerous waste*. Federal law uses the term *hazardous waste*. Washington's definition of dangerous waste includes some wastes that are not included in the federal definition.

Fish toxics – Federal regulations look at toxicity to land animals, but fish are frequently more susceptible to chemicals and at lower amounts than federal standards. Washington's standards protect the state's waterways, and fishing and shellfish industries by protecting against substances that are highly poisonous to fish, such as many pesticides. Washington's definition also protects against chemicals that separately might not be toxic, but when combined are poisonous to fish and other animals (including people).

Persistent wastes – Some chemicals build up in the environment and in people over time, causing long-term risk because they do not break down. These persistent wastes include substances such as polycyclic aromatic hydrocarbons (PAHs) and PCBs. These types of chemicals can cause skin and eye irritation, cataracts, liver and kidney damage, and immune and endocrine system disruption, and are confirmed or suspected to cause cancer.

Cleaner used oil – Federal rules allow hazardous wastes to be mixed with used oil; Washington's rules do not. This prevents some unscrupulous people from disposing of dangerous waste by mixing in a small amount of oil and calling it "used oil." Contaminated used oil also releases dioxins when burned, which can be toxic, cause cancer, disrupt hormones, and damage the immune system. Federal rules allow burning used oil containing hazardous wastes. Washington law prohibits burning used oil contaminated with more than certain levels of hazardous waste.

More Stringent Regulations Lead to Safer Waste Management

Less dangerous waste on site. Federal rules allow generators to collect 13,200 pounds of dangerous waste on site at one time without requiring spill plans or training about potential harm to workers. Washington requires such plans and training when generators reach 2,200 pounds, providing more protection for workers and the environment. Also, less dangerous waste on site lowers the financial risk to taxpayers if a business closes and leaves waste behind, or when the state needs to clean up an abandoned site.

Labels. Unlike federal regulations, Washington requires all facilities accumulating dangerous waste to clearly label waste containers or tanks. Washington's rules better protect employees, warn first responders and other visitors about possible danger, and help prevent accidents that lead to spills or other environmental contamination.

Harmful fumes. In Washington, facilities with toxic waste that gives off fumes must contain those fumes to prevent injury to workers. Federal rules do not specifically address these dangers from inhalation.

Closed containers. While federal rules do not require facilities to keep lids on containers of used oil at all times, Washington State does. Our more stringent standard helps reduce spills and keep out contaminants.

Providing Technical Assistance to Businesses

Federal law focuses solely on compliance through formal inspections and enforcement. Washington instead tries to prevent problems related to improper management of dangerous wastes before they occur. To help stop problems before they start, Ecology conducts over 250 compliance-related technical assistance visits to businesses each year. These visits help facilities stay in compliance, prepare for a formal inspection, and keep the environment safe before problems rise to the level of penalties or environmental harm.

For a more complete look at Washington's regulations, see Ecology publication 96-401, *Differences Between Washington State and Federal Rules – Highlights*. For more information on Ecology's technical assistance services, see *Focus on Ecology Services Add Value to Business*, publication number 11-04-023, revised 2/13. For more information about dangerous waste management, read *Focus on Enforcing Dangerous Waste Rules Prevents Pollution*, publication number 10-04-029, revised 2/13.

Attachment

Examples of State-only Regulations Better Protecting Washington's Environment

State dangerous waste regulations require trucking company to clean up dumped corrosive waste.
A trucking company dumped nine tons of corrosive solid waste along State Route (SR) 397 and a surface street near a middle school in Finley, Washington. Because Washington's state regulation went beyond the federal standards, Ecology was able to ensure the trucking company cleaned up the waste, preventing students from being burned or otherwise harmed. (2005)

A nine ton load of corrosive waste dumped in the street. State dangerous waste regulations required clean up.

Stricter requirements help keep toxic chemicals out of stormwater. A mold remediation company washed an anti-mold coating down a storm drain in Lynnwood, Washington. The state's regulation ensured the company stopped washing the fish-toxic substance down the storm drain and into the neighboring lake (a source of local drinking water and recreational fishing). (2010)

Yakima company penalized for toxic dust cloud.
Ecology issued a penalty to a pesticide distribution and application company in Yakima after a 20-pound box of Guthion (azinphos-methyl) fell off one of their trucks onto the freeway. The box broke open and created a dust cloud that vehicles drove through. Exposure to Guthion can result in nervous system damage. Without Washington state regulations, Ecology would not have been able to address these human health and environmental concerns. (2000)

Washington's stringent regulations provide penalty for illegal burial of potent pesticides.
Ecology penalized an eastern Washington farm for the illegal burial of pesticides, including chlorpyrifos (also known as Dursban and Lorsban). The pesticides were buried at the direction of a farm supervisor. Chlorpyrifos can over-stimulate the nervous system causing nausea, dizziness, confusion, and, at very high exposures (e.g., accidents or major spills), respiratory paralysis and death. Many pesticides have been banned because of their health risk to farm workers, pesticide applicators, and the environment. But the safe disposal of hundreds of other toxic pesticides is regulated only under the state dangerous waste rules, and not under federal law. (2005)

Workers wear proper protection to clean up illegally buried toxic waste. The responsible party was penalized under state regulations.

Exposure to spilled ammonia causes emergency shutdown of state highway.
Ecology fined an eastern Washington facility after an ammonia spill exposed people to the chemical and caused an emergency shutdown of a state highway. Without the state provisions of the dangerous waste regulations, Ecology would not have been able to address this human health concern. (2008)

State regulations help keep toxic chemicals out of landfills.
A Spokane company was penalized after illegally dumping over three tons of oily sludge in a a local landfill. The sludge contained chlorinated materials in concentrations above what can be accepted at the landfill according to state rules. Health effects of chlorinated materials include headaches, chronic skin problems, and damage to the nervous system, kidneys, or liver. Some chlorinated solvents are also known to cause cancer. (2011)

State rules limit accumulation of dangerous waste, reducing the potential for spills and expensive cleanup.
An inspection in the Seattle area found stockpiled, mismanaged paint wastes at a mid-sized painting company nearing bankruptcy. Safe waste management had ceased. If this company had stored the federally-allowable amounts of hazardous waste on site, it could have resulted in a much larger environmental problem. (2009)

State regulations limit how much dangerous waste can be accumulated on site. That helps reduce the potential for dangerous waste spills requiring costly clean-ups.

Washington regulates spent antifreeze, a toxic hazard.
A Spokane recycling company received an administrative order for illegal storage of spent antifreeze. Antifreeze has a sweet smell and taste. If it's not safely stored or managed, it can be inviting to curious and thirsty animals and children. Ingestion can lead to kidney failure. State regulations ensure that spent antifreeze is stored and disposed of as a dangerous waste. (2002)

Spilled antifreeze caused a toxic, green sheen in this stream. Fortunately, state regulations require antifreeze to be managed safely.