



Oregon Governor's Occupational Safety & Health Conference General and Hazardous Waste

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Overview of Various Types of Commercial Wastes

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What is Waste?

- General Solid Waste
- Electronic Wastes
- Universal Wastes
- TSCA Regulated Wastes
- RCRA Hazardous Wastes
 - Waste Categories and Listings
 - Generator Status

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General Solid Wastes

ORS 459.005 (24) – Solid waste means all useless or discarded materials, including but not limited to garbage rubbish, refuse, ashes, paper and cardboard, sewage sludge, septic tank and cesspool pumpings or other sludge, useless or discarded commercial, industrial, demolition and construction materials, discarded or abandoned vehicles...

- Hazardous waste defined in ORS 466.005

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Electronic Waste

State of Oregon has a law in place that provides free and convenient statewide recycling for computers, monitors, and TVs, paid for by the product's manufacturers.

- Applies to Households and businesses with 10 or fewer employees.
- Anyone can bring up to 7 items to participating collection sites.

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Universal Wastes

- Allows longer accumulations
- Does not count toward generator status
- Includes:
 - Batteries
 - Pesticides
 - Mercury Equipment
 - Lamps

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TSCA Wastes - PCBs

- PCBs – Polychlorinated Biphenyls
 - Materials with 50 ppm PCBs are regulated by 40 CFR Part 761
 - Commonly found in:
 - Fluorescent lamp ballasts
 - Transformers
 - Capacitors
 - Paints, coatings, gasket materials manufactured prior to July 2, 1979

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TSCA Wastes - Asbestos

- Asbestos
 - Commonly found in Cement products, Vinyl flooring, plaster, fireproofing materials, insulating materials, roofing materials.
 - Abatement requires licensed firms and certified workers.
 - ASN-1 to ASN-8 forms for notification reporting to the state. Can be found at the DEQ website.

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RCRA Wastes

Hazardous Waste Determination:

It is the responsibility of all solid waste generators to determine whether their waste is hazardous.

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Listed and Process Wastes

Listed wastes:

Waste is considered hazardous if it is found on any one of four "lists". These "lists" are called the "F", "K", "P" and "U" lists.

- "F" – Generic hazardous wastes from nonspecific sources that are produced by a variety of industries
- "K" – Hazardous wastes from specific industrial processes
- "P" – Acutely hazardous specified commercial chemical products or manufacturing intermediates
- "U" - Hazardous specified commercial chemical products or manufacturing intermediates

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Characteristic Wastes: The "D" Codes

- IGNITABLE** - combustible under certain conditions
- CORROSIVE** - highly acidic, basic and/or capable of corroding metal
- REACTIVE** - unstable under normal conditions and capable of creating explosions and/or toxic fumes, gases, and vapors when mixed with water
- TOXICITY** - wastes contain dangerous amounts of metals, pesticides, herbicides, and organic chemicals that could be released to the groundwater

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Who is Regulated?

- Generators
- Transporters
- Treatment, Storage, and Disposal Facilities (TSDFs)

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Conditionally Exempt Small Quantity Generator

You are considered a CESQG in a calendar month if you generate no more than 100 kilograms (220 pounds) of hazardous waste per month, and cannot accumulate more than 2,200 lbs.

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Small Quantity Generator

You are considered an SQG if you generate greater than 100 kilograms (220 pounds) but less than 1,000 kilograms (2,200 pounds) of hazardous waste in a calendar month, and cannot accumulate more than 13,200 lbs.

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Large Quantity Generator

You are considered an LQG if you generate 1,000 kilograms (2,200 pounds) or more of hazardous waste in a calendar month. You also are considered an LQG if you generate during a calendar month, or accumulate at any time, more than one kilogram of acutely hazardous waste, or more than a total of 100 kilograms (220 pounds) of any residue, contaminated soil, waste, or debris from cleaning up a spill of any acutely hazardous waste onto land or into water.

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Accumulation Times

Large Quantity Generators – 90 days from time of generation

Small Quantity Generators – 180 days from time of generation, 270 days if more than 100 miles to a disposal facility.

Satellite Accumulation

- Near point of generation
- Accumulation start date does not begin until container is full (55 gallon drum)
- Must be moved to permanent hazardous waste storage within 3 days of becoming full

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Questions?



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How a Commercial Waste Handling Firm Can Help

Vince Brown, Veolia Environmental



Waste Tracking Systems

The Manifesting System

- Tracks the shipment each time it changes hands until it reaches the designated TSDF
- Certificates of Disposal
- On-line
 - Can provide information on Management codes and other information

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Packaging and Transport

Profiles – TSDFs require a waste profile to be in place to order to receive and manage the waste.

- Waste Profiles identify the material being disposed of chemically, the source, waste codes that apply.
- Often similar to an MSDS, if fact replaces the MSDS for OSHA Hazcom requirement for Hazardous Wastes.
- Contractors should be able to assist you with how to fill these out, and guide you on which TSDFs to use with their system of facilities.

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Preparing Wastes for Shipment

Any waste that is a hazardous material or hazardous substance needs to comply with 49 CFR regulations as well as environmental regulations.

Requires:

- HAZMAT Training - 49 CFR 172 subpart H
- Proper packaging
- Labeling
- Marking
- Shipping Papers, or Manifesting
- Placarding

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Selecting the Package

Before transporting hazardous wastes, a generator must package the waste in accordance with applicable DOT regulations found in 49 CFR parts 173, 178, and 179

In addition to these requirements, it may be necessary to consult with the TSDF for their acceptance criteria. This may include:

- Volume, size, types of packages allowed for certain wastes.

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Packaging (continued)

Hazardous Waste Contractors can guide the generator in these package selection, and/or packaging services.

- Identify improperly packaged materials
- Lab packs
- Performance Oriented Packaging

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Performance Tests

- Leak Proof test
- Hydrostatic test
- Stacking test
- Vibration test
- Drop test
 - PG III drop height – 3.0 feet
 - PG II drop height – 3.9 feet
 - PG I drop height – 5.9 feet

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UN Rating on the Package

Hazardous materials/wastes will be in UN rated packages

- Steel drum – 1A1 or 1A2
- Fiber drum – 1G
- Fiberboard box – 4G

Packing group ratings

- X – all packing groups
- Y – packing groups II and III
- Z – packing group III only

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Labeling (172.400)

- Warning labels permit the display of the hazards contained within the package.
- Each person offering a package or freight container for transport must determine the appropriate label(s) to be used.
- The hazardous materials regulations details label selection, placement specifications and general prohibitions.
- The labels are designed and color-coded so that they are readily recognizable.
 - **See Column 6** of the DOT Hazardous Materials Table (HMT)

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General Marking Requirements

- Proper Shipping Name
- Identification Number (UN/NA)
- Technical Names/Constituents
- DOT Packaging Exemption or Special Permits
- Consignee or consignor name and address
- RCRA Label with required fields completed.

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Manifesting

A generator who transports or offers for transport a hazardous waste must prepare a Manifest

- EPA ID numbers
- Shipping Names and Volumes
- EPA Waste Codes
- Certification, signature and dates

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Placards

- Shipper provides placards
- Each side and both ends of the transport vehicle
- Only for hazardous materials
- May be displayed even if not required

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Special Waste Disposal Permitting

Waste Profiles

- Required by TSDFs for waste acceptance and is required by their permits.
 - Contractor can help facilitate this process

Waste Imports and Exports

- Require international notifications from both originating and receiving countries prior to shipment.
 - TSDF/Contractor can facilitate. They may have already obtained the required notifications for facility to facility shipments.

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Biohazardous, Radioactive and Munitions Wastes

These materials will require specialized knowledge of the acceptance criteria.

Contractors that manage these wastes may be able to provide:

- Packaging methods, supplies & labor
- Required documentation
- Stabilize materials that may be otherwise illegal to ship, or unsafe to handle and ship.

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