

Auto Dismantler Handbook

**Best management practices and
environmental compliance**

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**DEQ's Materials
Management and
Hazardous Waste
Programs**

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DEQ is a leader in
restoring, maintaining and
enhancing the quality of
Oregon's air, land and
water.



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Overview

This guidance provides detailed information to help auto dismantling business owners and operators prevent harmful environmental impacts, and comply with regulatory requirements.

The operator should perform all auto dismantling activities inside buildings and on sealed concrete or paved surfaces to prevent releases that could impact water, land or air. Dismantle vehicles in ways that keep down dust and prevent spills to the ground. All materials, whether product or waste, should be managed to prevent spills, releases, fires or other hazards to people or the environment. Collect all fluids and store them in containers that are closed, labeled, and kept under cover. Decide whether to reuse, recycle or dispose of each material, and understand all applicable requirements to the management of these materials.

An auto dismantler should identify all regulatory requirements that apply and obtain the necessary land use approvals and environmental permits before beginning. The proposed location of the business may need approval from the local government. Depending on the processes, DEQ might require an air quality permit to control painting, grinding, sandblasting and other emissions. A stormwater management permit also might be required. See “Regulatory Requirements” for more information on the types of permits that might be required.

Recommendations for best practice

These practices can help an auto dismantler reduce environmental impacts and the need for regulation.

1. Business design and layout

All activities should be carried out on a sealed concrete pad or other impervious surface, and under a roof or inside a building.

2. Managing incoming vehicles

DEQ recommends that business operators inspect incoming vehicles to help identify and manage environmental concerns.

- Inspect the entire vehicle for unwanted materials that could be present, and dispose of them properly.
- Inspect vehicles for leaks.
- Place drip pans to collect fluids and prevent leaks from reaching soil or water.
- Thoroughly clean up any spilled fluids and wastes immediately.
- Remove all fluids, refrigerants, batteries, mercury switches, and air bags as soon as possible. Store in containers that are closed, labeled and kept under cover (out of the elements).
- If removing an engine, do so in a manner that minimizes tipping to prevent fluids from spilling on the ground.
- Store parts that have been drained in containers or under cover to prevent contact with water or the ground.
- If possible, store vehicles with the hood closed to prevent rainwater from washing over oily parts. If the hood is missing, store the vehicle in a building or under a rainproof covering (e.g. tarp).

3. Vehicle fluids

DEQ recommends that auto dismantlers capture all vehicle fluids in compatible containers that will not be damaged by the fluid. Cover, store and recycle or properly dispose of captured fluids. The following are typical vehicle fluids with recommendations for management.

3.1. Used antifreeze

- Drain and capture all antifreeze from radiators and heater cores as soon as possible.

- Store antifreeze in closed, labeled containers. For example, if a container is used to store used antifreeze to be recycled, label it “Spent Antifreeze”.
- Keep containers closed except when emptying or filling to prevent spills.
- Recycle by reuse, distillation, filtration or ion exchange. Recycling can be done on-site or off-site by an antifreeze recycling service. Recycled antifreeze is exempt from hazardous waste regulations.
- Do not mix antifreeze with any other wastes or it may need to be managed as a hazardous waste. For example: If antifreeze becomes excessively contaminated with fuel, metals and sludge, it may need to be handled as hazardous waste.
- The recycling process may produce antifreeze still bottoms, antifreeze filters or antifreeze solids. If these materials are not recycled, the auto dismantler will need to determine whether they are hazardous waste.
- Do not put antifreeze in storm drains, septic tanks, dry wells, or on the ground.
- Keep records of antifreeze recycling for at least three years. Records should include a log for on-site recycling or invoice/bill of lading for off-site recycling.
- For further information, refer to DEQ’s Used Antifreeze fact sheet at: www.deq.state.or.us/lq/pubs/docs/hw/Policy/HWPolicy1997PO004.pdf

3.2. Used brake fluid, gear oil, power steering fluid, transmission fluid

- Recycle uncontaminated used brake fluid, gear oil, power steering fluid and transmission fluids with your used oils *if no chlorinated cleaners have been used and the material is going to a used oil recycler*. Call your used oil recycler for their requirements regarding these types of fluids.
- Store and manage brake fluids containing chlorinated brake or carburetor cleaners separately. Used brake fluid that is contaminated with chlorinated brake/carburetor cleaner must be managed as a hazardous waste., Do not put these fluids in any indoor or outdoor drain or onto the ground.
- Do not put these fluids in a storm drain, dry well, sanitary sewer system or septic tank.

3.3. Freon and Refrigerants R-12 and R134a

Freon, R-12 and R134a are typically used in air conditioning units, motor vehicle air conditioners (MVACs), and appliances. Do not vent any refrigerant to the air. It is against the law for anyone but an EPA-licensed refrigerant technician to remove or install refrigerant substances from vehicles or appliances. Workers exposed to these substances may experience difficulty breathing, dizziness, heart problems, or loss of coordination. Refrigerants also can damage the ozone layer in the earth’s atmosphere and allow harmful ultraviolet radiation to reach the earth’s surface.

Used refrigerants that are not reclaimed or recycled may be hazardous waste.

- Store refrigerants in tanks that meet federal Department of Transportation or Underwriters Laboratory standards.
- Send refrigerants only to certified technicians or certified reclaiming facilities.
- Dispose of filters from a certified CFC refrigerant recovery system as hazardous waste or have them tested to determine if they are hazardous waste.

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- Maintain records that refrigerants were recovered on site by a licensed reclaimer, or that the vehicle/appliance was brought into the facility free of refrigerants or that they were removed by a licensed technician.

For more information on refrigerants contact the US EPA's Stratospheric Ozone Protection Information Line at 1-800-296-1996

or see <http://www.epa.gov/ozone/title6/609/justfax.html>

For information about Approved Technician Certification Programs visit the website:

www.epa.gov/ozone/title6/609/technicians/609certs.html

3.4. Old fuel (diesel and gasoline)

Old fuels contain benzene which can make the fuel a hazardous waste if disposed. Reusable fuel can be used at the facility or in employee vehicles.

- Remove old fuel from fuel tanks as soon as possible after the vehicle enters the dismantling facility.
- Do not mix old fuel with any other waste.
- Determine if the fuel is reusable, or if it is a waste fuel. Label accordingly and store in closed, leak-proof containers. If determined to be unusable as fuel, it may still be recyclable. Contact a petroleum recycler to determine if the waste fuel can be recycled.
- If not recycled, the old fuel is considered a hazardous waste and must be managed appropriately.
- Clean up any fuel spills using absorbents and other spill containing materials. Scrape up any contaminated soil. Determine if contaminated spill absorbent or contaminated soil is hazardous waste. Dispose of as hazardous waste if appropriate; otherwise dispose as a general solid waste.
- See Section 7.3 Contaminated Soil for additional clean-up requirements

3.5. Used oil

Used oils include motor oil, power steering fluid, hydraulic oil, transmission fluid as well as the following:

- Differential oil
- Gear oil
- Hydraulic oil
- Lubricating oil
- Petroleum grease
- Refrigeration oils
- Transaxle fluid
- Transmission fluid
- Cutting oil*

** Some cutting oils and metal working fluids contain chlorinated compounds and must be managed and recycled separately. Do not mix these with other used oils.*

Do not contaminate used oils with brake cleaners, carburetor cleaners, waste fuels or other wastes. This could turn recyclable used oil into hazardous waste. Be careful about accepting PCB-containing equipment such as old transformers, capacitors, light ballasts, or anything likely to contain specialized oil for dissipating heat. PCB-containing oils and gels require special disposal requirements and cannot be recycled with used oils. Do not mix PCB-containing oils with used oil, or the combination will not be recyclable and will require costly disposal. If oils contain PCBs, contact EPA to discuss management and disposal requirements.

Non-contaminated used oils may be utilized in an onsite used oil space heater provided it is designed for this fuel source and does not exceed 0.5 million BTUs or may be managed through a registered used oil recycler. See DEQ's fact sheet about used oil generators and space heaters:

<http://www.deq.state.or.us/lq/hw/docs/UsedOilGenerator.pdf>
www.deq.state.or.us/lq/pubs/factsheets/hw/UsedOilSpaceHeaters.pdf

- Store used oils in leak-proof, closed containers and check the condition of containers regularly.
- Tanks or containers must be closed or under cover to prevent rain water or melting snow from overflowing and should remain closed except when emptying or filling to minimize chance of spillage. A self-closing funnel with a hinged lid is helpful with containers that are frequently used. The funnel flap and opening must be kept clean enough to be able to close properly.
- Label tanks or containers used to store used oil with the words "Used Oil".
- Do not mix used antifreeze, solvents, old fuel, degreasers, paint or other wastes with the used oil.
- Used oil generated on site may be burned in a used oil space heater under certain conditions.
- Do not use oil, diesel, or old fuel for dust suppression.
- Do not dispose of used oils in the trash, on the ground, down any drain or into a septic system.
- Keep all paperwork from used oil recyclers or vendors for three years.

3.6. Windshield washing and deicing fluids

- Windshield fluid can be ignitable depending on the concentration of solvents used (e.g. methanol or isopropyl alcohol).
- Determine if waste window washing fluid is hazardous waste and if so, count this toward your monthly generator status, properly label the container (Hazardous Waste, Window Wash, start date) and recycle or properly dispose as hazardous waste. Otherwise non-hazardous waste window washing fluid may be recycled.
- Drain all wiper fluid during dismantling before vehicle is stored in the yard.
- Label and store in closed containers.
- Do not dispose of in a storm drain, dry well, sewer system or septic tank.
- Do not mix with other wastes, because other wastes may be hazardous waste.

- Reusing window washing fluid is allowed only in the facility's or employee's vehicles.

4. Salvaging automobile and appliance parts

4.1. Compressed gas cylinders, including propane and other metal tanks

Many recyclers accept propane and other compressed gas cylinders for recycling as scrap metal.

- Recycle empty metal cylinders or tanks.
- If any cylinders or metal tanks are accepted, they should be empty with any remaining contents used appropriately as products prior to scrapping the containers. Do not vent the contents to the environment.
- Some tanks or cylinders may contain Flammable Compressed Gases. These can be dangerous and if mishandled, can cause injury.
- Make a hazardous waste determination prior to disposing the contents of tanks or cylinders.
- Contact a certified compressed gas vendor as they may be able to recycle a gas cylinder without removing the contents.

4.2. Used oil filters

- Used oil filters must be crushed, or punctured and hot drained into a drain pan for at least 12 hours. Hot draining means the oil is at a temperature over 60 degrees Fahrenheit, as it would be if the filter were removed from the engine while still warm. Oil collected should go into your "used oil" container.
- Puncturing the top of the oil filter releases vacuum and can commonly allow 50% more oil recovery.
- Drained oil filters can be recycled as scrap metal or handled as a solid waste which can be disposed of in the trash. Crush drained filters to save space in the trash container and recover more salable used oil.
- Filters not crushed or properly drained are potentially a hazardous waste.

4.3. Used transmission filters

- These can be handled like used oil filters. The transmission fluid from these types of filters can be placed in the "used oil" container.
- Drained transmission filters may be recycled if they are metal or disposed of in the trash.

4.4. Waste fuel filters

- Spent fuel filters may be considered a hazardous waste if not fully drained.

- Fully drain filters and properly dispose of or recycle the waste fuel. Fuel that is recycled and/or sent for energy recovery in an EPA authorized boiler is not a hazardous waste.
- Recycle empty filters as scrap metal only if sufficiently drained.
- Contact a used oil recycler to determine if they will accept and burn waste fuel filters as fuel.
- Manage as a solid waste and perform a hazardous waste determination if waste fuel filters are to be disposed.

4.5. Lead acid batteries

Spent lead acid batteries contain lead and corrosive acids. If these are not recycled or returned to a battery manufacturer, they are considered hazardous waste.

- Test batteries to determine usability or resale quality.
- Lead acid batteries may be managed as universal waste under 40 CFR 273 or managed for reclamation under 40 CFR 266 Subpart G.
- Place cracked or leaking batteries in a leak-proof plastic container. Battery acid can degrade concrete and metal shelving units.
- If a battery is leaking, provide secondary containment and manage the liquid acid as hazardous waste.
- Store batteries indoors or in a covered area.
- Protect batteries from freezing.
- Keep all paperwork from battery recycler for 3 years.

4.6. Lead tire weights and other leaded parts

- Remove lead tire weights and battery cable ends before crushing vehicles.
- Remove other known sources of lead when practical and recycle.
- Store lead parts in a covered container out of the weather that is strong enough to hold the weight.
- Recycle lead parts with a scrap metal recycler.

4.7. Radiators and heater cores

- Radiator cores can contain lead.
- Store radiators and heater cores indoors or in a covered area or in such a manner to prevent contact with stormwater.
- Do not rinse radiators on the ground. This can contaminate your property.

4.8. Mercury switches

Mercury is a highly toxic substance that can pollute water and harm fish and people. Mercury is found in switches used in automobile lights and braking systems, typically in: tilt switches used under the hood and in trunk lighting; four wheel drive anti-lock braking systems; active ride control or ride leveling sensors used to adjust suspension on cornering events; high intensity discharge (HID) systems, such as headlights and tail lights; and virtual image instrument panels.

The amount of mercury in one automotive switch (one gram) can contaminate a 20-acre lake. The law requires the removal of these switches prior to crushing the vehicle.

- Carefully remove switches from vehicles and store them in a closed container capable of containing any leaks, and manage as universal waste (40 CFR 273) if not recycled.
- Store switches in a closed receptacle clearly marked “Universal Waste: Mercury Containing Switches.” Take special care with glass switches so they don’t break and release the mercury.
- If switches crack open or are smashed, use proper Personal Protective Equipment (PPE) to prevent exposure to mercury waste.

Contact the Northwest Automotive Trades Association at (503) 253-9898 for information about collection and disposal options.

4.9. Fluorescent lamps/bulbs/headlights

Fluorescent, High Intensity Discharge, Sodium Halide, and Compact Fluorescent lamps can contain mercury and lead. DEQ allows them to be managed as “Universal Waste” if they are properly recycled. If they are not recycled, they must be managed and disposed as Hazardous Waste.

- Do not break the bulbs. Store them in a cardboard box or fiber drum large enough to hold the bulbs completely within the container.
- Keep the container closed. Use a strong tape, such as duct tape, to secure the lamp box top.
- Label as “Universal Waste Lamps” or “Used Lamps.” Mark the date the first bulb goes in the container. Universal waste cannot be stored on site for more than one year.
- Send bulbs to the recycler when the container is full or when the year is up, whichever comes first.
- Carefully clean up any broken bulbs and place in a double plastic bag. Do not use a vacuum cleaner because this practice further contaminates potentially clean areas.

For more information on the management of mercury-containing lamps, refer to the DEQ fact sheet <http://www.deq.state.or.us/lq/hw/docs/ManagingWasteLamps.pdf>

4.10. Air bags

Air bags, also known as supplemental restraint systems, contain sodium azide, a toxic substance that is dangerous if inhaled and may burn exposed skin. When mixed with water, sodium azide forms hydrazoic acid that can enter streams, lakes and groundwater when not properly managed. Air bag modules are located in the steering wheel hub for driver safety and on the right side of the dashboard for passenger safety. Many newer vehicles have side curtain air bags in addition to driver and passenger front airbags.

- Leave deployed airbags in vehicles.

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- Contact the vehicle manufacturer to determine if they have a program to take back undeployed air bags and inflators containing sodium azide and work with the manufacturer to determine how to safely sell the undeployed air bags back to the manufacturer or a vendor. If not, dispose the undeployed air bags as a reactive hazardous waste. Label the containers “Hazardous Waste - Undeployed Air Bags.”
- Some vehicles also contain seatbelt pre-tensioners that contain sodium azide. Although these are not required to be deployed or removed under state law, they still present similar safety and environmental hazards.

For additional information, see DEQ’s factsheet at <http://www.deq.state.or.us/lq/pubs/factsheets/hw/AirBagManagement.pdf>.

4.11. Scrap metal

4.11.1. Appliances

Many auto dismantlers also recycle appliances. Appliance recyclers specialize in recovering metal as scrap. As a part of the process, recyclers are required to remove hazardous substances from appliances. These substances include:

- Polychlorinated Biphenyls (PCBs) in the motor capacitors, as an oil or gel
- Mercury (in switches)
- Oil (in refrigerator compressors). Any oil recovered from the compressor or lines may be managed as used oil ONLY after removal of CFCs. Typically a unit contains about four to eight fluid ounces of oil and other hazardous substances.
- Chlorofluorocarbons (CFCs) or Hydrofluorocarbons (HCFCs), also known as Freon refrigerant. In order to recycle CFC and HCFCs, recyclers need to:
 1. Obtain current EPA technician certification
 2. Obtain and use current EPA certified recycling equipment
 3. Manage their recovered refrigerant through a certified Freon recycler
 4. Register recovery equipment AND technicians
 5. Keep good records.

For more about appliance recycling, review the DEQ fact sheet at: <http://www.deq.state.or.us/lq/pubs/factsheets/sw/ApplianceRecycling.pdf>

4.11.2. Catalytic converters

Catalytic converters may be removed prior to crushing and recycled for their platinum content if removed safely according to acceptable Occupational Safety and Health Administration requirements. If you have an OSHA technical safety or health question, contact OSHA’s technical experts at:

Phone: (503) 378-3272 (V/TTY) or (800) 922-2689
tech.web@state.or.us

4.12. Tire management and waste tires

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Vehicle salvage can generate both waste tires and used tires.

Tires both on and off rims can be considered waste tires. A waste tire, by law, is a tire "that is no longer suitable for its original intended purpose because of wear, damage or defect." This includes "retreadable casings," that is, waste tires that can be retreaded.

If your business needs to haul more than four waste tires at a time, you will either need a DEQ Waste Tire Carrier Permit, or have your tires hauled by a company that already has a permit. If you hire a waste tire carrier, you should verify that they have a DEQ permit. Permitted carriers will have a DEQ-issued decal on the hauling vehicle. You can also call DEQ for verification.

Any auto salvage yard that stores more than 1,500 waste tires must have a Waste Tire Storage Permit from the Department of Environmental Quality. The best way to avoid the storage permit requirement is to remove the tires frequently, so they don't build up past the limit.

Any business that generates or handles more than 100 waste tires per year must keep a log of tires, whether or not they have a waste tire permit. The log should include:

- Quantity (number) of tires
- Date received from customers
- Where the tires were disposed
- How many disposed
- Dates of disposal

Keep receipts, bills of lading, or other papers to document the disposal for at least two years.

Holders of DEQ waste tire storage or carrier permits face additional documentation requirements.

For more information go to DEQ's website regarding management of waste tires and permit applications to become a waste tire carrier or waste tire storage site:

<http://www.deq.state.or.us/lq/sw/tires/faq.htm>

5. Vehicle crushing

Fluids are removed during the processing of incoming vehicles, but there may be some residual fluids remaining in the vehicle. Any crushing should be performed on an impervious surface and inside a building or under a roof, to help prevent stormwater pollution and contain spills. If using a mobile car crusher, make sure to contain fluids while crushing. Make sure that any spills are thoroughly cleaned up, reported to authorities if necessary, and the spill waste managed properly (see section on Spills and Leaks below). Clean crusher regularly and treat fluids and sludge as a potentially hazardous waste.

- Drain all fluids from vehicles prior to crushing.
- Remove all mercury switches and light bulbs prior to crushing.

- Position mobile crushers on an impervious paved or sealed surface or on heavy duty plastic sheeting that won't tear while crushing vehicles to prevent any spills of fluids to the ground. Position crusher and drain racks toward center of the surface. Slope the floor to make fluid clean up easy. Regularly clean out the reservoir where fluids collect. All spilled fluids or other residue from crushing cars is potentially hazardous waste and should be placed in closed containers, labeled as hazardous waste and dated.
- Make sure the crushing operations do not create offsite dust or smoke. If big enough, a crusher may need a DEQ air quality permit and should be reported to DEQ through an air quality notice of intent to construct form for a piece of equipment that releases emissions.

6. Tank and container management, storage and labeling

Vehicle fluids and wastes are often stored in tanks or containers prior to reuse, recycling or disposal. Storage containers must be managed properly including container selection, labeling, inspection, storage and disposal.

- Select tanks and containers to store fluids and wastes that will safely contain the particular material. For example, use plastic containers for corrosive wastes and electrically-grounded metal drums for flammable liquids. The container must maintain its structural integrity and not melt, rust or corrode from the contents.
- Purchase standard container labels or use a permanent marking pen to label container contents. Label all containers with the contents. Label containers holding hazardous waste with the words "Hazardous Waste." This might include fuel-contaminated soil, spent solvent, aerosol cans, lead solder, paint thinners, oil paint waste. If containers hold recyclable used motor oil and all the vehicle fluids qualify for management with used oil, label the containers with the words "used oil." Label containers that hold universal waste batteries, mercury-containing devices like lamps, mercury switches, lamps, and other types of universal waste with the words "universal waste." If the contents are going to be recycled, label the container accordingly, for example "scrap metal," "lead acid batteries for recycling," "lead weights for recycling" or "used antifreeze for recycling."
- Depending on the amount of hazardous waste generated, you also may be required to write the "accumulation start date" on the container documenting when hazardous waste was first stored in it. (See Section 13 for information regarding hazardous waste determinations.)
- Keep all containers in good condition. Routinely inspect all containers for signs of rust, leaks or defects.
- Choose compatible containers for the materials. Do not store corrosives or bleach products in metal containers; instead, choose polypropylene plastic containers.
- Prevent leaks and ruptures.
- Keep containers closed when not adding or removing materials.
- Never place incompatible wastes in the same container. For example, do not store acids and bases in the same container. Doing so might cause a chemical reaction that could rupture the container, providing energy to cause a fire or vigorous release, with resulting injury to workers and damage to property.
- Container leaks or spills must be safely stopped, contained, and managed immediately upon discovery and the container repaired or replaced.

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- If possible, store containers in an area protected from weather. If this is not possible, keep the outside of all containers clean, so that rain or snow doesn't cause contaminants to be washed into storm sewers or rivers.
- Store containers on impermeable surfaces where any spills or leaks can be contained and easily cleaned up. Secondary containment may be required for some types of container.
- Store incompatible materials separately (e.g., acids and bases; or flammables and oxidizers)
- If containers contain hazardous waste, make sure the containers are stored in an orderly fashion with aisle space for easy inspection. Make sure that all container labels face out and are visible and readable.
- Some wastes, such as ignitables cannot be stored close to property boundaries, as specified by the Fire Marshal.
- Store flammable waste containers away from ignition sources.

Containers are considered “empty” when they no longer contain product or wastes, and no longer contain pressure. An empty container should contain no pourable free liquid. Check with a scrap metal recycler to determine if your empty metal container can be recycled as scrap metal. Ensure that empty containers and drums do not fill with rainwater.

7. Housekeeping

Housekeeping refers to the general maintenance practices of the business. Auto dismantlers should follow these general business practices to reduce environmental problems:

- Clean out and store empty containers in a manner that prevents rain or snow from getting in the container.
- Use drip racks, drip tables, screen tables and trays to capture fluids. Drained parts should be stored on an impervious surface, under cover and protected from weather.
- Label every container with its contents and manage the container appropriately as waste or product.
- Keep all chemicals in closed, covered or sealed containers.
- Always use funnels or pumps when transferring or dispensing liquids.
- Place a platform or step next to storage drums so employees do not have to lift drain pans above their waists.
- Maintain equipment to prevent leaks/spills.
- Maintain trash dumpsters on-site and dispose of waste regularly.
- Do not burn or bury waste.

7.1. Absorbents: granular clay, pads and booms (pigs)

- Do not put spent absorbent in vehicles to be crushed or shredded, in drains, or on the ground.
- Soak up leaks and spills as soon as they occur and properly clean up any spill contaminated soil and dispose of spill cleanup materials in a timely manner.
- Manage absorbent that comes in contact with hazardous waste as a hazardous waste.
- Do not mix used non-hazardous absorbent with used hazardous absorbent.

- Ask if your solid waste company can accept spill cleanup waste that is not hazardous.

7.2. Aerosol Spray Cans

- Before recycling or disposing aerosol cans, make sure they are completely empty.
- In most circumstances, you may deactivate the cans with an aerosol can puncturing device. Please refer to the following DEQ fact sheet, or contact your local DEQ office (see Appendix B) for more information on this practice:
<http://www.deq.state.or.us/lq/pubs/docs/hw/Policy/HWGuidance2005PO001.pdf>
- Manage fluids collected from puncturing aerosol cans as hazardous waste.
- Punctured cans may be disposed of in the trash or recycled with scrap metal. Talk with your scrap metal recycler.
- Aerosol cans that have not been fully emptied, or have malfunctioned and can no longer be used need to be treated as a potential hazardous waste or returned to your supplier.

7.3. Contaminated soil

Clean up spills immediately. If you dig out contaminated soil, you must determine if it is a hazardous waste.

At some facilities, soil has become contaminated by past or ongoing practices. The severity of the contamination will depend on such factors as the toxicity of the pollutant, the amount of fluid lost to the ground, and spill cleanup procedures. If contamination threatens groundwater or surface water or the property owner wants to voluntarily clean up the site, consult the DEQ Cleanup Program for options. If cleanup is beyond the ability of the facility operators, you should hire a properly trained cleanup contractor to conduct the cleanup.

- Collect contaminated soil in compatible containers and store them closed on a covered impermeable surface for transport to an appropriate off-site facility. Label drums and containers with the appropriate descriptive designation, such as Hazardous Waste Soil Pending Analysis and marked with the accumulation start date.
- Cover any remaining contaminated soil to prevent contact with rainwater pending project completion.
- Test soils for benzene, heavy metals, and other potential hazardous waste characteristics as directed by DEQ.
- Soils that are not hazardous waste must also be tested by Petroleum TPH-G and Dx and managed as petroleum contaminated soil. Divert stormwater around contaminated areas to prevent release of contaminants to stormwater.
- If soil contamination removal requires the use of heavy equipment, the cleanup may require confirmation sampling and the property owner may wish to have DEQ oversight in order to complete an appropriate and thorough cleanup.

If soil contamination is not adequately cleaned up, the site will be placed on DEQ's Environmental Cleanup Site Information (ECSI) database and will require additional cleanup under DEQ oversight. Former releases may hamper future property transactions, and undisclosed environmental liability often returns to the previous owner after property sale. It

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may be prudent to conduct the cleanup with DEQ oversight of project completion documented by a No Further Action letter.

7.4. Dust

Dust can pollute the air and cause complaints from your neighbors. Here are some techniques to prevent and suppress dust:

- Work inside a building with dust control equipment (e.g., wet sanders, enclosed sand and beadblast units, filter systems, etc.) as much as possible.
- Do not clear more vegetation than is necessary to provide ample work areas. Apply gravel or rock, sod, seed or mulch to cover areas that might otherwise create dust.
- Construct natural or artificial wind breaks or wind screens.
- Lower speed limits on roads. Apply water when necessary.
- Only if the above options are not available, consider applying non-hazardous dust suppressants to non-traveled areas. Used oil cannot be used for this purpose. See <http://www.epa.gov/esd/cmb/pdf/dust.pdf> for more information on how to select a safe dust suppressant.

7.5. Shop towels and wipes

- All used towels and wipes, whether cloth, paper, or other material, require a hazardous waste determination before final disposal.
- Cloth towels that are laundered at a qualified industrial rag laundry service and reused are not hazardous waste. Please refer to the following letter that identifies DEQ policy for management of rags and wipes more information: <http://www.deq.state.or.us/lq/pubs/docs/hw/Policy/1996-LM-001.pdf>.
- Store used towels in a closed, fireproof container labeled “Rags for Laundry” until they can be laundered or disposed.
- Do not dispose of dirty shop towels in vehicles to be crushed or shredded.
- Do not saturate towels. Towels should not have liquid dripping from them. Liquids can drain from saturated towels and free liquids are prohibited from landfilling. Free liquids may also be considered a hazardous waste.
- Soak up leaks and spills as soon as they occur. Remove the spent absorbent in a timely manner. If hazardous waste material is absorbed on a disposable cloth, manage as a potential hazardous waste.
- Usually oil contaminated absorbents can go to the trash unless contaminated with solvents or fuel.

7.6. Parts cleaning waste

7.6.1. Wastewater management

Wastewater is water that has been used for a purpose, such as engine cleaning, and is destined for disposal. Process wastewater might be eligible for discharge to a sanitary

sewer, but check with the local sewage plant authority for information on discharge limits and to obtain a discharge permit if required. No wastewater should ever be discharged to the ground or to a septic system. **Find out where the drains in the shop discharge.**

Do not dispose of used washing solutions or sludges onto the ground, down a drain or into a septic tank. Determine if these are hazardous waste and dispose of as solid waste or hazardous waste.

- Consider using a closed-loop recirculating system for recycling wastewater.
- Floor cleaning wastewater may be contaminated with heavy metals and grease that need to be treated before discharging to the sewer. If not contaminated, the water may go to an oil/water separator (or another appropriate system) and then the sanitary sewer. Notify and get written approval from the sanitary sewer system prior to discharging any wastewater
- Keep floors clean to begin with. Catch leaks before they hit the floor (e.g., in pans and mobile oil cans with high funnels).
- Recycle floor mop water into spray cabinet washers.
- Steam cleaning, pressure washing and spray cabinet wastewater should go to an oil/water separator (or another appropriate system) before discharging to the sanitary sewer.

7.6.2. Water-based parts washers

- Hot water washers are safer for employees and the environment because they do not contain volatile hydrocarbons. Precautions must still be taken concerning disposal of wastewater, sludge (see section on sump sludge below), and filters.
- Do not dispose of spent parts washer fluids on the ground, down a drain, in a dumpster or into a septic system.
- Conduct a waste determination on spent parts washer fluids, filters and sludges and dispose of properly.
- Maintain records of analytical waste determinations and disposal receipts for three years.

7.6.3. Hot tank solutions

- Accumulate spent cleaning solutions and sludge removed from hot tanks in closed, labeled containers. (Letting hazardous waste evaporate to the air as a means of “disposal” is strictly prohibited.)
- Manage spent hot tank solutions and sludge as potential hazardous wastes. These wastes may be hazardous for corrosivity, toxic metal content, for benzene, and for cross-contamination with listed and characteristic solvents.
- Conduct a hazardous waste determination on the sludge and dispose of properly. Call DEQ technical assistance staff for help determining if this waste stream is a hazardous waste.
- Maintain records of analytical/hazardous waste determinations and disposal receipts for three years.
- Never discharge waste to the sewer without approval from sanitary sewer authority.

7.6.4. Solvent-based parts washers

- Use parts washers equipped with filters or other separation and treatment options to keep the solvent cleaner longer. Consider an on-site distillation unit to recycle spent solvent.
- Most parts washer sludges require analytical (laboratory) testing to help determine if the sludge can be disposed to the trash or must be managed as a hazardous waste.
- Keep lids closed and turn off circulating sinks to prevent evaporation.
- Remove caked on grease and oil from parts with a scraper or knife before washing to reduce cleaning time and extend solvent use.
- Appearance is not always a good indicator of the solvent's ability to clean. Change out filters and solvents according to the manufacturer's recommended schedule for best performance.
- Don't use chlorinated aerosol cleaners (such as brake or carburetor cleaner) over a parts washer, as it may mix with the parts washer solvent and cause it to become a listed hazardous waste which limits recycling and management options and increases disposal costs.

7.6.5. Pressure washing

Perform pressure washing on a curbed concrete pad. Wastewater may contain heavy metals and greases, which if improperly managed, could contaminate soil and/or groundwater.

- Pressure wash parts and engines over a contained, impervious surface such as a wash table that drains to an oil/water separator.
- Do not allow wastewater, oils or greases releases to the ground.
- Do not allow wastes to flow into a septic tank or a drain leading to a ditch, stream, lake or dry well.
- Check with your local sewer utility to verify that drains in your pressure washing containment area are connected to a sanitary sewer system.
- Notify and receive written authorization prior to discharging wastewater to a sanitary sewer system.
- Maintain oil/water separation systems or sumps on a frequent, regular schedule to keep them in good working order.
- Equip the oil/water separator with an emergency shut-off to prevent spills from entering the sewer, or discharging directly to surface waters.

7.6.6. Sump sludge

- Sludge in sumps and trench drains require management as potential hazardous waste due to possible heavy metals or solvent contamination. Most sump sludges will require analytical (laboratory) testing to determine if the sludge can be disposed to the trash or must be managed as a hazardous waste.
- Water in sumps must not discharge onto the ground or below ground. Sumps must be pumped out and properly discharged to sanitary sewer. Usually a pretreatment permit

from the local government permit will be required to discharge to the sanitary sewer system.

- Discharges of waste to dry wells are prohibited. Dry wells are addressed as underground injection control wells. Consult your regional DEQ office for details.

8. Spills and leaks

8.1. Spill prevention

Prevent spills and leaks whenever possible. Identify every area where spills could occur and develop procedures to prevent spills or leaks. What might a “worst case” situation be? How would you handle it? If you needed a professional spill response contractor to respond quickly during an emergency, who would that be?

8.2. Spill control

In the event a spill does occur, auto dismantlers should have procedures in place to immediately clean up a spill or leak. Spills may need to be reported to the Oregon Emergency Response System or to local fire departments or to DEQ.

For information regarding how and when to report a spill see information at <http://www.deq.state.or.us/lq/cu/emergency/reportspill.htm>

When in doubt, report the spill!

- Train all employees on how to respond to a spill including when to report a spill and when and how to best clean up a spill. Everyone should be trained according to OSHA requirements. (See Chapter 4 for OSHA Technical Assistance contact information.)
- Post the emergency numbers to call with the contact name near all areas where spills may occur. **Oregon Emergency Response System (OERS) number is 1-800-452-0311**
- Keep spill control equipment/absorbent materials and spill kits in locations accessible to all employees near where spills may occur. Be sure to restock after use. See below for additional information on spill kits.
- Place fire extinguishers in all areas where a fire could occur. Check to see if fire extinguishers are required and where they are required. Regularly inspect and maintain fire extinguishers.
- Make sure that spill kits contain spill control equipment as well as appropriate personal protective equipment (PPE).

8.3. Mercury spills

Mercury is very toxic and can cause significant health issues and should only be handled by trained personnel that use appropriate PPE. If you have a small mercury spill (a few droplets), immediately clean up the free mercury liquid. Collect, containerize and label the mercury residue. Do not use a vacuum because further contamination can occur. Instead, duct

tape can be used to collect droplets of mercury on the ground or floor. Mercury residue on a carpet will require the section of carpet to be cut out and removed. The containerized mercury will be a hazardous waste and is not managed as universal waste, such as mercury switches. See <http://www.deq.state.or.us/lq/mercurycleanup.htm> for details on methods for cleaning up liquid mercury.

Spills greater than 1 pound or about 3 table spoons should only be handled by trained professionals and you should contact OERS if you believe the spill is >1 pound.

8.4. Spill kits

Clean up spills immediately. The best way to be prepared is to keep spill kits stocked with equipment and supplies for cleanup.

Industrial supply companies offer convenient pre-made spill kits for “universal” use on any type of spill, and also specialty kits for chemical, oil, or solvent spills. But many dismantler shops put together their own kits tailored to their operation. Common components of spill kits are:

- absorbents for various types of spilled materials
- a shovel to pick up used absorbent
- a container, such as a drum, to hold the used absorbent
- an inventory checklist to make sure used materials are replaced
- a dedicated cart or cabinet to hold the spill kit items

Choose absorbents carefully. Cat litter often works for some fluid spills but not in rain and usually not for oily substances. Perlite or chemical absorbents may work better for oil.

8.5. Spill response and reporting:

When a spill occurs, follow these basic steps:

1. Call the local fire and/or police department if the spill is a threat to public safety.
2. Report spills exceeding a reportable quantity to **Oregon Emergency Response System (OERS) at 1-800-452-0311, and if exceeding a federal Reportable Quantity also call 1-800-424-8802.**
3. In general, the Reportable Quantity is 42 gallons of petroleum on the ground or a sheen on water. Refer to Oregon DEQ rules and regulations (OAR 340-142-0050) and in Title 40 of the Code of Federal Regulations (CFR) Part 302.4 for reportable quantities for other hazardous materials. If unsure, the best practice is to report the release. Regardless of the volume released or the need for reporting, all spills need to be cleaned up immediately.
4. Stop the source of the spill if this can be done safely.
5. Contain the spill by placing booms, absorbents, dirt, sand, cat litter or any semi-impermeable material in the spill's path and around storm drains to contain the spill and keep it from reaching water bodies.
6. Clean up the spill with adequately trained on-site personnel that use proper PPE or contact a cleanup contractor to perform the cleanup. If a spill is not adequately cleaned

up, DEQ may determine that the site is contaminated and requires cleanup. DEQ would then identify the site on the Environmental Site Cleanup Inventory requiring DEQ oversight until the site is properly cleaned up.

7. If the spill contaminates soil, test the soil to determine if it is hazardous waste prior to removal to know how and where to dispose of the contaminated soil. Dispose of contaminated soil at a facility permitted to accept that type of contaminated soil.

8.6. Spill prevention control and countermeasures (SPCC) plan


A Spill Prevention and Control and Countermeasures Plan (SPCC) describes a facility's spill prevention efforts and response plan in the event that the business has a spill or release of oil, used oil, or fuel. Your plan should say what you will do to prevent spills, identify who will respond to spills, identify where spills would go including whether oil or other fluids could reach a storm drain, lake or river, or other water body, and describe equipment and materials to be used to respond as well as how the spill response material will be properly managed and disposed after use. Your facility needs a SPCC Plan if:

- The business has an above ground storage capacity of at least 1,320 gallons or
- The business has an underground storage capacity of 42,000 gallons.
- The spill has the potential to reach a water body.


9. Emergency Response Information Form

Emergency response contact information needs to be readily available for use of employees and emergency responders. Here is one example of an Emergency Response Information form:

Emergency Response Information	
Emergency Coordinator Name: _____ _____ Telephone(s): _____ _____ _____	Spill Control Materials Location(s): _____ _____ _____ Fire Alarm (if present) Location(s): _____ _____ Fire Extinguisher Location(s): _____ _____ _____ Fire Department Telephone: _____



Emergency Response Procedures	
In the event of a spill: Contain the flow of hazardous waste to the extent possible, and as soon as possible, clean up the hazardous waste and any contaminated materials or soil.	Our Company name: _____ Our Address: _____ _____ Our U.S. EPA identification number: _____
In the event of a fire: Call the fire department and, if safe, attempt to extinguish the fire using a fire extinguisher.	Date of accident: _____ Time of accident: _____
In the event of a fire, explosion, or other release that could threaten human health outside the facility — or if you know that the spill has reached surface water: Call the National Response Center at its 24-hour number (800-424-8802). Provide the following information:	Type of accident (e.g., spill or fire): _____ Quantity of hazardous waste involved: _____ Extent of injuries, if any: _____ Estimated quantity and disposition of recovered materials, if any _____



This form is just a suggestion. You can create your own postings and forms as long as they have all the necessary information.

10. Training

Oregon Occupational Safety and Health Administration (OSHA), Environmental Protection Agency and the Oregon Department of Environmental Quality each have training requirements that apply depending on the business size or how much hazardous waste is generated.

Auto dismantlers should train all employees to:

- Understand the environmental and human health risks associated with products, materials and wastes from their business activities
- Identify and properly manage all wastes
- Properly handle used oil and hazardous waste
- Reduce waste generation when possible
- Properly recycle appropriate wastes
- Use appropriate personal protective equipment
- Know the location of the Safety Data Sheet book
- Respond to emergencies
- Identify and, if adequately trained and equipped, clean up spills, leaks and releases and manage wastes from spills, leaks and releases
- Properly store wastes, manage containers and understand labeling requirements
- Know how to properly dispose of wastes if part of their job duties.

11. Recordkeeping

DEQ recommends that auto dismantlers keep waste management records for at least three years. These records document efforts to safely and appropriately manage wastes. If an auto dismantler generates more than 220 pounds of hazardous waste in a month, the dismantler must keep disposal manifests for three years.

- Keep bills of lading, landfill receipts for waste disposal of contaminated soil, hazardous waste manifests (if applicable) or bills of lading, used oil pickup receipts, antifreeze recycling receipts, lead acid battery core pickups, universal waste receipts, and Freon recovery logs.
- Make sure used oil recyclers are registered transporters (unless self transporting less than 55 gallons) and used oil goes to a registered used oil processor.

For a list of certified used oil transporters view the DEQ fact sheets:
www.deq.state.or.us/lq/pubs/factsheets/hw/UsedOilTransporters.pdf

Or call DEQ toll free in Oregon at 1-800-452-4011 and ask for a copy of the fact sheet titled “Used Oil Transporters”.

Regulatory program requirements

12. Air quality guidance

Oregon Air Quality regulations are OAR 340, Divisions 200-268.

12.1. Dust and odors

If any activities generate odors or offsite dust, the operator will need to control activities by several means such as moving activities inside a building or using water to wet down activities that cause dust.

12.2. Crushers or other air emission units

An auto wrecker that uses a crusher, a kiln, a boiler, parts cleaners, a paint booth or paint guns or solvent stills or evaporators should contact DEQ's Air Quality Program to determine if an air quality permit is required or if air quality controls are needed.

12.3. Open burning

Open burning includes any burning outdoors. A fire in a burn barrel is open burning. Other examples include burning piles of yard debris, burning stumps to clear land and burning construction debris or the remains of demolished structures. DEQ recommends against any burning because of the smoke and toxic air pollutants that are created.

In Oregon, no one is allowed to open burn the following materials at anytime, anywhere in Oregon:

- Rubber including wire cables
- Tires (includes burning tires to start an approved agricultural waste fire)
- Plastic
- Wet garbage
- Petroleum and petroleum-treated materials
- Asphalt or industrial waste
- Any material that creates dense smoke or noxious odors.

13. Hazardous waste guidance

Refer to the Oregon Hazardous Waste rules at OAR 340, Divisions 100-142 and 40 CFR 260 – 279 for additional regulatory information on managing hazardous wastes.

Hazardous wastes are solid, liquid or gaseous waste materials that could cause injury or death to a person or could pollute the land, air or water if not properly managed.

Hazardous wastes fall into two main categories:

- Listed wastes. Certain types of wastes are always designated hazardous because they are listed in federal or state regulations. For instance, use of many of the common solvents produce listed waste.
- Characteristic wastes. Other wastes are designated hazardous because they have certain characteristics, that is, they are ignitable, corrosive, reactive (explosive) or toxicity based on constituent concentration. Wastes with toxicity characteristics include benzene, heavy metals, and several chlorinated solvents.

In addition, Oregon law considers certain types of pesticide residues and mixtures of wastes to be hazardous waste.

Auto dismantlers must determine which wastes must be managed as hazardous waste. The process for determining whether a waste is a hazardous waste is called a hazardous waste determination. An auto dismantler can determine if a waste is hazardous through knowledge of the material or by testing the waste material. In order to properly manage auto dismantling wastes, have a trained employee determine which wastes are hazardous wastes and which are not. DEQ offers training and free technical assistance to businesses to help them identify and manage hazardous waste. For more information, go to:

<http://www.deq.state.or.us/lq/pubs/docs/hw/hwtraining.pdf>

<http://www.deq.state.or.us/lq/pubs/docs/hw/TABrochure.pdf>

Proper management of wastes not only prevents harm to people and the environment, but often results in lower costs for the business.

13.1. Hazardous waste determination

Businesses that generate waste are called generators.

Waste management service companies may assist you, the generator, with your hazardous waste determinations. However, the waste generator has the legal responsibility for any mismanagement of their hazardous waste. Failure to perform an adequate waste determination is the number one violation cited by DEQ hazardous waste inspectors. Failure to perform a proper waste determination can result in mismanagement of your waste, often leading to damage to the environment or human health.

Hazardous wastes

Category	Hazardous waste type	Frequent examples
Listed Hazardous Wastes		
	<p>EPA has 4 groups of “Listed Hazardous Waste”:</p> <ul style="list-style-type: none"> • F-listed hazardous wastes (40 CFR 261.31) are wastes from non-specific sources and include, but not limited to, spent halogenated solvents, and wastewater treatment sludges from electroplating operations. • K-listed hazardous wastes (40 CFR 261.32) are waste from specific manufacturing sources, including but not limited to, spent pickle liquor generated by the steel-making industry and baghouse waste from steel arc furnaces. • P- and U-listed hazardous wastes (40 CFR 261.33) are unused “commercial chemical products”, off- specification products, container residues and spill residues of such products. Examples of U-listed hazardous wastes included unused commercial chemical products such as acetone, benzene, DDT, Mercury, and Toluene. The products on the “U” list are called “toxic” wastes. • Products on the “P” list are called “acute hazardous wastes” and are subject to more rigorous controls than the other listed hazardous wastes. P-listed wastes are so dangerous in small amounts that they are regulated the same way a large amount of other hazardous wastes. Examples of acute hazardous wastes include the unused commercial chemical products such as potassium cyanide, sodium azide, acrolein and parathion. 	<ul style="list-style-type: none"> • Un-rinsed containers • Chlorinated Solvents • Solvent Contaminated Oil
Characteristic hazardous wastes		
Ignitable wastes	A liquid and its flash point is less than 140 degrees F (60degrees C); or an oxidizer or an ignitable compressed gas; or a waste containing leachable metals, and/or other toxic compounds has the potential to ignite under standard temperature and pressure, and burn persistently and vigorously once ignited.	<ul style="list-style-type: none"> • Spent solvents • Solvent still bottoms • Waste fuel • Compressed gas cylinders
Toxic wastes	Determined by having a laboratory analyze an extract of the waste using the Toxicity Characteristic Leaching Procedure (TCLP).	<ul style="list-style-type: none"> • Sludges • Metals such as lead and Mercury switches • Contaminated soils
Corrosive wastes	Liquids with a pH less than or equal to 2.0; or greater than or equal to 12.5; or a liquid that corrodes steel at a rate of more than one quarter inch per year.	<ul style="list-style-type: none"> • Acid from lead-acid batteries • Certain cleaning compounds
Reactive wastes	Normally unstable and readily undergoes a violent change without detonating; or Reacts violently with water; or Forms potentially explosive mixtures with water; or Produces toxic fumes, gases, or vapors when mixed with water in a quantity sufficient to present a danger to the environment; or containing cyanide or sulfide	<ul style="list-style-type: none"> • Undeployed air bags containing sodium azide • Un-punctured aerosol cans

Other wastes do not have to be tested as listed hazardous wastes are specific compounds such as spent solvents and discarded chemical products. Some waste streams will have to be tested in order to make a proper hazardous waste determination. With other waste

streams, the generator can use knowledge of process to determine if the waste is hazardous.

To learn how to make a hazardous waste determinations refer to Chapter 4 of DEQ's Small Quantity Generator Handbook, and fact sheet at:
<http://www.deq.state.or.us/lq/hw/docs/DetWasteHaz.pdf>

13.2. Determining generator status

Conditionally Exempt Generators generate 220 pounds or less non-acute hazardous waste per month (less than half of a 55 gallon drum).

Small Quantity Generators generate more than 220 pounds but less than 2200 pounds per month of non-acute hazardous waste (about four 55 gallon drums).

Large Quantity Generators generate more than 2200 pounds of non-acute hazardous waste or 2.2 pounds of acutely hazardous waste per month.

For more information regarding Generator Category, see the DEQ Small Quantity Generator Handbook at <http://www.deq.state.or.us/lq/pubs/docs/hw/SQGHHandbook/SQGChap06.pdf>

14. E-Waste

Oregon e-waste regulations are in OAR 340, division 98.

Many dismantlers are adding electronic waste to their collection of recyclables. Electronic waste, called e-waste has specific management requirements because e-waste contains valuable resources that can be recycled. E-waste also contains heavy metals, which can be toxic if they get into soil or water.

- Effective January 2010, Oregonians can no longer dispose of computers, monitors or televisions in the trash or at a municipal landfill, transfer site or incinerator.
- If you are considering adding the collection of e-waste, you may want to join the Oregon e-cycles program as a service provider. You should review the Environmental Management Practices prior to collection:
www.deq.state.or.us/lq/ecycle/service/index.htm

Visit the Oregon E-cycles webpage to review requirements for service providers and ensure you are using the Environmental management practices:
www.deq.state.or.us/lq/ecycle/service/index.htm.

If you process e-waste, you may need a DEQ solid waste permit. Please contact the closest DEQ office to determine if you need a permit. You may find additional information here:

<http://www.oregon.gov/deq/docs/ewastehandling.pdf>

15. Cleanup program guidance

Environmental cleanup is complex and may involve a wide range of laws and regulations.

Mismanaged wastes often cause long-term site cleanup issues. Once waste fluids such as petroleum are released to soil, they can migrate deeper in the soil and potentially contaminate groundwater, or they can be mobilized by rain and contaminate surface water. Generally small short-term spills tend to remain in shallow soil but still require cleanup. The most common sources of significant contamination are at storage and disposal areas, crushers, and areas that are used for removing fluids. Soil contamination in these areas can be deep and may have the potential for impacting groundwater.

If contamination threatens groundwater or surface water or the property owner wants to voluntarily cleanup the site, you should notify DEQ to ensure proper oversight. In addition, older salvage yards typically have more significant contamination due to the length of the operating period and also previous lack of awareness of proper handling and disposal methods.

The cleanup cost of a poorly managed auto-salvage yard could be very high depending on the extent of contamination. Upon discovery of a release or historical contamination, DEQ may place the site on the Environmental Cleanup Site Inventory (ECSI). DEQ requires that all sites listed on ECSI be thoroughly assessed and cleaned up in order for the site to receive a “No Further Action” determination, which is generally necessary for bank-supported property transactions. Without a No Further Action determination, the property value is severely diminished due to the unknown extent and magnitude of contamination. Environmental liability remains with the property owner as well as any site operators that may have caused the contamination.

If cleanup is a priority for DEQ or the EPA due to imminent threat to public health and the environment, the DEQ or EPA may require the owner to do the clean up or will conduct the cleanup themselves. The cost of the cleanup will then be recovered from the property owner or site operator and those costs could be attached as a lien to the property. These costs are in addition to penalties that DEQ may issue.

DEQ recommends that property owners and operators avoid the liability associated with a clean up and the long term cost of cleanup by properly cleaning up spills and following the spill reporting requirements.

For more information about DEQ’s cleanup program, visit DEQ’s website at www.oregon.gov/DEQ. Click on “Cleanup” on the right sidebar.

16. Water Quality Program guidance

Find Water Quality regulations in OAR 340, division 40 through division82.

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Auto recycling businesses may generate process wastewater from equipment cleaning, car washing, paint spray booths or other sources. Wastewater from auto recycling activities may contain contaminants, such as oil, dirt, and chemical residue from cleaners. Proper management and disposal of wastewater is essential to protect public health and the environment. If not managed properly, wastewater and its contaminants can negatively impact surface and groundwater.

Two main types of wastewater are typically generated by auto recycling facilities:

Sanitary wastewater includes wastewater generated from normal use of lavatories, washrooms, showers, drinking fountains, etc. Sanitary wastewater can be discharged to a city sewer system or a DEQ approved onsite wastewater treatment (septic) system.

Industrial wastewater includes wastewater going into floor drains in dismantling and work areas: aqueous cleaning, steam cleaning, equipment wash down water, or water from other sources where it comes into contact with dismantled parts or equipment.

Industrial wastewater generated by auto recycling businesses may contain heavy metals, grease, oil, solvents, detergents and other contaminants. If improperly managed, such wastewater could contaminate soils, surface waters, and groundwater.

All industrial wastewater should go to a sanitary sewer, and should never discharge to the ground, stormwater system, septic system, or drywell.

16.1. Managing industrial wastewater

- Notify and get written approval/permits from the local government sanitary sewer system district prior to discharging any wastewater. You may need to pre-treat your wastewater before it goes to the sewer treatment facility.
- Verify the discharge point of all floor drains. Do not allow wastewater, oils, solvents or greases to flow into a drain leading to a septic tank, storm drain, the ground surface, a ditch, stream, lake, or dry well.
- When possible, use dry clean-up methods for leaks and spills.
- Consider using a closed-loop recirculating system for recycling wastewater.
- Recycle floor mop water into spray cabinet washers.
- Floor cleaning wastewater may be contaminated with heavy metals and grease that need to be treated before discharging to the city sewer. If not contaminated, the wastewater may go to an oil/water separator (or another appropriate system) and then to the city sewer.
- Steam cleaning, pressure washing and spray cabinet wastewater should go to an oil/water separator, or another appropriate system, before discharging to the sanitary sewer.
- Pressure wash parts and engines over a contained, impervious surface, such as a wash table, that drains to an oil/water separator.
- Do not dispose of spent parts washer fluids onto the ground, down a drain, into a dumpster, or into a septic system. Conduct a hazardous waste determination on spent parts washer fluid and filters and dispose of properly. See Section 13 of this handbook.

- Set-up and use a maintenance schedule for inspection and cleaning floor drains, oil/water separators, traps, etc. See EPA best management practices for oil/water separators at www.epa.gov/region9/waste/p2/autofleet/separator.pdf
- Equip oil/water separators with emergency shut-offs to prevent spills from entering the sewer system or discharging directly to surface waters.
- Do not store hazardous material where floor drains are located.
- If you have floor drains that are not in use, consider permanently capping or plugging them to prevent misuse or accidental discharges.
- Maintain records of analytical waste determinations and disposal receipts for three years.
- Start with clean floors and keep them clean. Prevent leaks and spills before they hit the floor by placing parts in a drip tray or on absorbent material (i.e. wipe/rag).

If a city sewer and wastewater treatment facility is not available for your business, or the sewer district will not allow you to discharge to their system, you must contact your nearest DEQ office for information about other options available for treating and disposing of your wastewater. You may be required to pretreat your wastewater and get a Water Pollution Control Facilities or National Pollutant Discharge Elimination System permit.

16.2. Stormwater Permit Requirements

Stormwater runoff from land and impervious areas such as paved streets, parking lots, and building rooftops during rainfall and snow events often contain pollutants that could adversely affect water quality. National Pollutant Discharge Elimination System (NPDES) permits are required for storm water discharges to surface waters from construction and industrial activities and municipalities if stormwater from rain or snow melt leaves a site through a "point source" and reaches surface waters either directly or through storm drainage. A point source is a natural or human-made conveyance of water through such things as pipes, culverts, ditches, catch basins, or any other type of channel. Regulated industries are generally identified by SIC code. Industries that require an NPDES stormwater permit include facilities involved in recycling of material including metal scrap yards, battery reclaimers, salvage yards, and automobile junkyards. Permits are required for specific industry classifications as established by EPA.

In order to obtain a permit, the facility will need to submit an application packet, which includes:

1. Application
Please see <http://www.deq.state.or.us/wq/stormwater/stormwater.htm>
2. Land Use Compatibility Statement
3. Stormwater Pollution Control Plan for the site, which includes:
 - Industrial activities,
 - Significant Materials stored onsite,
 - Best Management Practices,
 - Spill Response,
 - Employee Education,
 - Site Maps

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DEQ will review the SWPCP and application. If these are acceptable, DEQ will issue a public notice and accept public comments. DEQ will review and respond to any comments, then, assuming everything is in order, will issue the permit.

Key elements of the general stormwater permits include:

Storm Water Pollution Control Plans

A Storm Water Pollution Control Plan (SWPCP) must be prepared and submitted to DEQ with a permit application, land use compatibility statement (LUCS), and applicable fees. The plan must include a complete description of the industrial activities at the site along with drainage maps that show the location of facilities, impervious areas, and point source discharges. In addition, the plan must discuss measures that will prevent and/or treat stormwater pollution. Except for site controls that require capital improvements, the plan must be implemented within 90 days of permit issuance. Capital improvements must be made according to the schedule in the Storm Water Pollution Control Plan. These activities include implementing treatment best management practices; manufacturing modifications; installing pads, dikes and other structures used for transfer of stormwater; and roofs and appropriate covers for manufacturing areas.

Monitoring

Stormwater permits specify the types and frequencies of monitoring and sampling. A new permittee will generally be required to conduct monitoring more frequently until a baseline is established.

Best Management Practices

A Storm Water Pollution Control Plan must include a description of all stormwater best management practices needed to comply with the permit. Permittees are required to maintain existing controls and/or develop new controls appropriate for the site to minimize the exposure of pollutants to stormwater. You must use best management practices if technically and economically feasible. DEQ has generated guidance on best management practices for stormwater discharges. Best management practices required in a Storm Water Pollution Control Plan are described above with the other best management practices.

Other Storm Water Pollution Control Plans Requirements

Other Storm Water Pollution Control Plan requirements include the development and implementation of spill prevention and response procedures, preventative maintenance programs, and employee education programs. In addition, these plans require that permittees maintain records regarding programs and other activities required by the plan and spills or leaks of material that impacted or had the potential to impact stormwater or surface waters.

Once issued, the permit requires facilities to sample their stormwater. Samples are then analyzed for pH, total suspended solids, oil and grease, lead, copper, and zinc. If a facility's stormwater lab results exceed certain established benchmarks, the facility will be required to submit an Action Plan explaining the exceedance and any corrective measures that were done.

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Along with the grab samples, facilities also need to conduct monthly visual monitoring at all outfalls and submit Discharge monitoring reports.

17. Other Regulatory Programs



17.1. Environmental Protection Agency

Federal environmental regulations are found in Chapter 40, Code of Federal Regulations (40 CFR.) See <http://www.ecfr.gov/cgi-bin/text-idx> to search for specific regulations. For US Code (USC) generally, see <http://uscode.house.gov/>.

17.1.1. Freon evacuation

EPA enforces the part of the Clean Air Act which regulates Freon evacuation.

- CAA Section 608 (40 CFR Part 82, Subpart F) established requirements for the servicing and evacuation of refrigeration equipment containing ozone-depleting compounds: Chlorofluorocarbons and Halogenated Chlorofluorocarbons. This applies to dismantlers scrapping appliances.
- CAA Section 609 (U.S. Code 7671h) gave EPA authority to establish requirements to prevent the release of refrigerants from Motor Vehicle Air Conditioners (MVACs) during servicing and to require its recycling.

See www.epa.gov/Ozone/title6/609/index.html for more details.

Additional information on MVAC servicing can be found at the following address:
<http://epa.gov/ozone/title6/609/technicians/index.html>

If you have questions, contact the EPA Region 10 office at the numbers listed on their website: <http://www2.epa.gov/aboutepa/epa-region-10-pacific-northwest>.

17.2. Polychlorinated Biphenyls

EPA enforces the Toxic Substances Control Act (15 USC 53) which regulates the management, handling and disposal of Polychlorinated Biphenyls. A dismantler should carefully manage any transformers as well as all oil and used oil to prevent PCB contamination. PCBs have stringent management requirements. Mishandling can result in soil contamination as well as costly disposal of PCB contaminated used oil and costly fines. For more information view EPA's website:
www.epa.gov/epawaste/hazard/tsd/pcbs/index.htm

18. Oregon Driver and Motor Vehicle Services Division (DMV)

If you don't have a vehicle dismantler's certificate or license, please contact DMV before proceeding.

The Business Regulation Unit of the DMV licenses auto dismantlers, transporters, dealers and vehicle appraisers. Questions regarding the requirements for becoming a licensed dismantler or

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vehicle dealer should be addressed to: DMV-Business Regulations License Unit at 503-945-5052 or at www.oregon.gov/ODOT/DMV/

Persons engaged in this activity must possess a valid, current Dismantler Certificate issued by DMV. Violation of the law is a Class A Misdemeanor punishable by a fine of up to \$6,250.00 and/or up to one year in jail. In addition, DMV may issue civil penalties (monetary fines) up to \$5,000.00 per vehicle to persons engaged in dismantler activity without a valid certificate.

On the DMV website, under dealers and businesses, there is a section which provides specific information for dismantlers: www.oregon.gov/ODOT/DMV/dealers/index.shtml#Dis

- Dismantler Certificate The fee is \$450.00 for the certificate. City or county approval is required on the application for the certificate. A bond in the amount of \$10,000.00 is also required.
- Forms, Manuals & Publications
- How to Become a Dismantler

DMV has Business Regulation Investigators who investigate unlicensed activity. They also have a searchable database of current, suspended, cancelled or expired licenses.

- Dismantler List: Licensed, Cancelled, Suspended

If you have questions regarding recordkeeping requirements or other compliance issues you can contact your local DMV investigator.

Information and forms may also be obtained by visiting the DMV website at www.OregonDMV.com

19. State Fire Marshal requirements

Protecting citizens, their property, and the environment from fire and hazardous materials is the mission of the State Fire Marshal. Dismantlers are subject to the Oregon State Fire Marshal regulations. The fire marshal will conduct routine inspections of premises at any time, and will advise you if any of the conditions in your facility are out of compliance with fire code. Frequent “problem areas” may include:

- Building arrangements, such as incorrect use of extension cords or space heaters; allowing stored items to block electrical panels or other critical equipment; excessive storage of combustibles, etc.
- Tire storage methods
- Welding safety
- Permits may be needed for some activities

For more information about the State Fire Marshal visit their website at www.oregon.gov/OSP/SFM/.

For more information about the applicable fire codes, chapters and regulations, visit: http://egov.oregon.gov/OSP/SFM/Codes_2_New.shtml

20. Occupational Safety and Health Administration.

Dismantlers are subject to various state and federal human safety and health regulations. The Occupational Safety and Health Administration regulate worker health and safety. For more information see the website at: <http://oroshha.org/>.

As a business you are required to keep Material Safety Data Sheets for all chemical products available to employees. The MSDS book should be located at the worksite and must be accessible to all employees. You are also required to provide annual training for employees who may be exposed to various hazardous materials. For more information about MSDS's visit: www.cbs.state.or.us/external/oshha/pdf/pubs/fact_sheets/qf001.pdf

OSHA special concerns at auto recycling yards include:

- Uninspected block walls (potential crush hazard)
- Puncturing gas tanks causing an explosion
- Torching off catalytic converters
- Stacking cars unsafely
- Poorly maintained electric hand tools
- Inadequate restroom and drinking water facilities
- Inadequate training on heavy equipment

Contact DEQ

- Ask a question via e-mail at: deq.info@deq.state.or.us
- To file a complaint using the DEQ Pollution Complaint form: <http://www.deq.state.or.us/complaints>
- Hazardous waste technical assistance is available from DEQ, and is non-regulatory in nature. Contact your local DEQ office listed below or at <http://www.deq.state.or.us/about/locations.htm>

Auto Dismantler Handbook

DEQ Headquarters

811 SW Sixth Avenue
Portland, OR 97204-1390
Phone: 503-229-5696
Toll free in Oregon: 800-452-4011

Northwest Region Offices (Multnomah, Clackamas, Washington, Columbia, Clatsop and Tillamook Counties)

Portland

2020 SW 4th Avenue, Suite 400
Portland, OR 97201
Phone: 503-229-5263

Note: As of May 26, 2015, DEQ's Northwest Region Office will be located at 700 Lloyd Building at 700 NE Multnomah St., Suite #600, Portland, OR 97232.

Western Region Offices (Yamhill, Marion, Lincoln, Polk, Benton, Linn, Lane, Douglas, Coos, Jackson, Josephine and Curry)

Salem

750 Front St NE, #120
Salem, OR 97301-1039
Phone: 503-378-8240

Eugene

165 East 7th Avenue, Suite 100
Eugene, OR 97401
Phone: 541-686-7838

As of April 6, 2015, DEQ's Western Region-Salem Office will be located at 4026 Fairview industrial Drive, Salem, OR 97301.

Coos Bay

381 N Second Street
Coos Bay, OR 97420
Phone: 541-269-2721

Medford

221 Stewart Avenue, Suite 201
Medford, OR 97501
Phone: 541-776-6010

Eastern Region Offices (Baker, Crook, Deschutes, Gilliam, Grant, Harney, Hood River, Jefferson, Klamath, Lake, Malheur, Morrow, Sherman, Umatilla, Union, Wallowa, Wasco, and Wheeler)

The Dalles

Columbia Gorge Community College
400 E Scenic Drive, Building 2
The Dalles, OR 97058
Phone: 541-298-7255

Bend

475 NE Bellevue, Suite 110
Bend, OR 97701
Phone: 541-388-6146

Pendleton

800 SE Emigrant, #330
Pendleton, OR 97801
Phone: 541-276-4063



Checklist of Best Management Practices: Auto wreckers

☑	Best Management Practice	Notes
Initial fluid removal		
	Inspect vehicles for fluid leaks and cracked batteries as they arrive.	
	Remove all fluids from vehicles before storage in the main yard, on a concrete pad, and under cover.	
	Drain fuel and store safely in appropriate containers labeled "fuel for reuse."	
	Drain engine oil, transmission fluid, crankcase/engine oil and oil filters into tanks or containers and label as "used oil."	
	Drain brake fluid into a container or tank and label as "spent brake fluid." Assess if contaminated and if so, manage as hazardous waste. If uncontaminated, recycle with used oil.	
	Drain antifreeze into a tank or container and label as "spent antifreeze". Recycle.	
	Drain windshield washer fluid for reuse or disposal.	
	Use EPA-certified technician to remove Freon or other refrigerants for processing by a certified recycler.	
Operations and Maintenance		
	Launder and reuse shop rags. Dispose of as hazardous waste, or as a solid waste if not washed and reused.	
	Remove batteries. Store inside on a pallet or outside in a leak proof covered container pending offsite recycling.	
	Puncture and drain oil filters. Recycle used oil and metal casings.	
	Recycle or reuse fluids used to wash/clean parts where practical. Dispose as hazardous waste parts cleaners, brake cleaners and other solvents that contain chlorinated compounds.	
	Regularly inspect and maintain all facility equipment. Repair or replace all corroded or malfunctioning equipment.	
	Recycle batteries, battery cables, tire weights, radiator cores and other parts that might contain lead, or manage/dispose of them as hazardous waste.	

☑	Best Management Practice	Notes
	Recycle mercury switches, thermostats, and fluorescent bulbs or tubes.	
	Air bags: Sell or dispose of as hazardous waste.	
	Reuse or recycle used tires or dispose of them through an authorized waste tire carrier. If more than 1500 waste tires are stored on site, obtain a DEQ storage permit.	
	Puncture and recycle empty aerosol cans as scrap metal. Capture and manage residues.	
	Determine whether fluids and solids from containers are hazardous or solid waste and dispose properly. Recycle empty metal containers, cylinders and tanks as metal scrap.	
	Label all fluid, waste, and parts containers. Keep closed and store away from traffic areas, preferably under cover.	
	Store used fluorescent tubes or bulbs in closed containers labeled as "universal waste," before recycling. If not recycled, then dispose of as hazardous waste.	
	Regularly inspect tanks, drums, and containers for leaks, spills, deterioration, or structural damage. Repair or replace if damaged.	
General site-wide recommendations		
	Write a plan for emergencies. Develop clean-up procedures for any spills or leaks. Post emergency contacts with phone numbers.	
	Have spill cleanup equipment at locations where spills may occur. Clean up spills immediately, and dispose of wastes properly.	
	Provide annual training on pollution prevention to all employees.	
	Review site stormwater pollution control plan annually, and modify as needed.	