

Vehicle Service Facilities Pollution Prevention Tip Sheet

Waste Streams Generated

- Spent Parts Washer Solvent
- Spent Brake Fluid
- Engine Hot Bath Cleanout Fluids/Wastes
- Waste antifreeze
- Used oil
- Used oil filters
- Spent carburetor cleaner
- Contaminated rags/wipes

Pollution Prevention/Waste Minimization Tips

Solvent Reuse

To extend solvent life, use fresh solvent for cleaning certain parts, contaminated solution for cleaning dirty equipment, and less contaminated solvents to get relatively clean equipment ready for use next time.

Solvent Parts Washer Recycling Units

Solvent parts washer distillation units similar to the one depicted below, reuse and re-circulate the parts washer solvent several times over and generate a waste filter and a small amount of waste still bottoms that can be recycled along with the used oil or disposed as a hazardous waste, depending on the facility's hazardous waste generator status.



Hot Water Parts Washer Units

Use hot water pressurized steam to clean parts and do not use a chemical solvent at all. Hot waste parts washers clean vehicle parts with hot water and detergent at high pressures. A small amount of sludge/dirt is generated that must be disposed properly. An example of a hot water parts washer unit being used in Wyoming is below.



Below is an example of a sonic parts washer being used at a facility in Wyoming.



Used Oil Filter Disposal

The Wyoming Hazardous Waste Rules and Regulations, Chapter 2, Section 1(d)(ii)(m), requires that used oil filters must be hot-drained by either puncturing the anti-drain back valve, crushing, dismantling, or by using any other equivalent method that will remove all of the used oil. However, an additional small amount of used oil is contained in the used oil filter's anti-drain valve that is located in the upper portion of the used oil filter. Therefore, unless the back side of the used oil filter is punctured prior to draining

and/or the filter is crushed, up to 6 ounces of used oil contained in the valve will be disposed along with the drained used oil filter, into the local landfill.



Therefore, the Wyoming DEQ/SHWD highly recommends that all used oil filters be either crushed or the anti-drain valve be punctured while allowing the used oil filter to drain, to assure all used oil is removed before disposal. We also encourage that all properly drained filters be recycled as scrap metal. Check out the Steel Recycling Institute's website (www.recycle-steel.org/) to identify companies the area who will accepted used oil filters. Below is a used oil filter crushing device that is being used in Wyoming to recycled used oil filters.



Waste Antifreeze Recycling

Waste antifreeze contains ethylene glycol, a highly toxic chemical to animals and fish. Most waste antifreeze is disposed down the drain where it can ultimately pose potential problems to fish and other aquatic wildlife. The Wyoming DEQ/SHWD

recommends that waste antifreeze be recycled and then reused. Below is an example of a waste antifreeze recycling unit that is used in Wyoming.



Additional Tips

- a) Substitute detergent-based solution for caustic cleaning solution in engine hot baths.
- b) Where practical, the use of steam cleaning and pressure washing should be substituted for solvents and hot tanks.
- c) Minimize the amount of cleaning solvent lost during drainage of cleaned parts. Remove parts from the bath slowly to prevent spillage; install drip trays or racks near the bath for draining cleaned parts; return the drainage to the bath.
- d) Pre-wipe parts to remove excess grease or oil. This extends the parts washer solvent and, if installed, filter service life. Reusable shop towels are recommended for pre-wiping.

Bibliography

1. Environmental Best Management Practices for Small Businesses, Best Management Practice, Service Station, Small Business Division, USEPA, October, 2004
2. A Guide To Hazardous Waste and Used Oil Management In Montana, September, 2004, CD-ROM