



Pacific Northwest Pollution Prevention Resource Center

Practical solutions for economic and environmental vitality.

Floor Cleanup Best Management Practices



Discharging pollutants to surface waters is unlawful. Consequences for violators can be serious, such as imprisonment, fines up to tens of thousands of dollars, or both. If you are unsure if your indoor shop drain, or sink, is connected to outside storm water conveyance systems, then you should ask your building manager or local sewer authority for confirmation.



With wastewater discharge regulations becoming more stringent, environmentally-conscious auto repair shops are adopting practices that ensure a dry shop goal. A dry shop is a shop that has sealed all its floor drains. Although a 100-percent “dry shop” may not always be feasible, the methods and equipment presented in this fact sheet will help you reduce floor wash water volume and contamination. This, in turn, reduces your liabilities, protects the environment and community, and even saves you time and money spent cleaning floors.

Storm Drains

When water enters storm drains, the untreated water flows directly into local waterways, which can cause significant environmental and health problems for a local community. Contaminated water (even soapy water) can harm aquatic ecosystems.

A Clean and Safe Shop

Working and managing a clean and safe shop has many environmental, safety, and economic benefits to its bottom line. The following BMPs and equipment can significantly reduce environmental liability, and help your shop stay ahead of tightening regulations:

- Prevent spills from ever reaching the floor;
- STOP, if there is a drop! Never walk away from a spill. If a spill is not cleaned up immediately:
 - ⇒ Workers can slip and fall;
 - ⇒ Spilled material can mix and be tracked around your shop and into vehicles.
 - ⇒ You will spend more time and money washing the floor.

- Mechanics should carry small rags so that small spills can be wiped dry when they occur;
- In case a medium-sized or larger spill occurs, cleanup equipment should be clearly marked. For example, attach red flags to mop buckets used for spill cleanup so they can be located easily by workers. Keep all spills out of sewer drains.
- Sweep your floor with a broom every day to prevent unnecessary dirt and contaminant buildup.
- Never hose down your work area! This practice generates large quantities of contaminated wash water that is discharged to a sewer, or worse, is flushed out of a shop to a storm drain.

Chemical Reduction and Safer Alternative Selection

While use of chemicals for shop floor cleanup and engine repair is a necessity, the selection of sustainable chemicals for use and their proper management are essential. Reduce chemical use in the following manner:

- Eliminate the use of powdered or granular absorbent for routine cleanup.
- Eliminate the use of cleaners and lubricants containing n-hexane (e.g. aerosol brake cleaners and degreasers).
- Use a water-based brake washing method.
- Do not contaminate cleaning solution by washing parts sprayed with chlorinated cleaners or petroleum distillates.
- Use no- or low-copper brake pads whenever possible.*
- Use longer-lasting synthetic oils.
- Purchase re-refined oil and antifreeze for use in your shop.
- Use a detergent-based rather than caustic-based solution in a hot tank.

Reuse or Recycle Dangerous Substances

- Use an industrial laundry service for shop rags and uniforms (Keep rags in a covered container and do not saturate).
- Use a rag/uniform service that recycles its wastewater.

- Recycle empty dangerous materials containers (including drums).
 - ⇒ Either return to supplier for refill; or
 - ⇒ Recondition onsite (permit requirements may apply); or
 - ⇒ Contract with drum reconditioner.
- Recycle and reuse antifreeze onsite if you have/use large volumes.
- Crush used oil filters to recover as much oil as possible for recycling.
- Filter and reuse parts cleaning liquid onsite.
- Recycle and reuse all properly recovered refrigerant from air conditioning systems.

Consider Sealing Your Shop Floor



Sealing your shop floor with epoxy or other suitable sealant can be expensive, but there are several benefits by doing so. An epoxy-sealed floor:

- Will not absorb spills the way unsealed concrete does;
- Makes spill cleanup easier. (You can squeegee small spills into a dustpan and pour liquid into an appropriate drum.);
- Requires less water and time to clean;
- Lasts for years and reduces long-term liability for cleanup of a contaminated shop floor and soil below; and
- Looks great to workers and customers alike.

* **Note:** In 2010, Washington State passed a law reducing the use of toxic material in automotive brake pads and shoes. Brake pads manufactured after January 1, 2021, must not contain more than 5% copper by weight.

Use Absorbents Wisely

Pigs, Pads, Pillows, and Mats

- Keep these absorbent devices readily available to prevent large spills from spreading.
- After use, wring out the absorbed fluid into the proper drum for recycling or disposal, and reuse the absorbents.
- Spent absorbent devices must be disposed properly. This involves determining whether the spent absorbent is a dangerous waste.

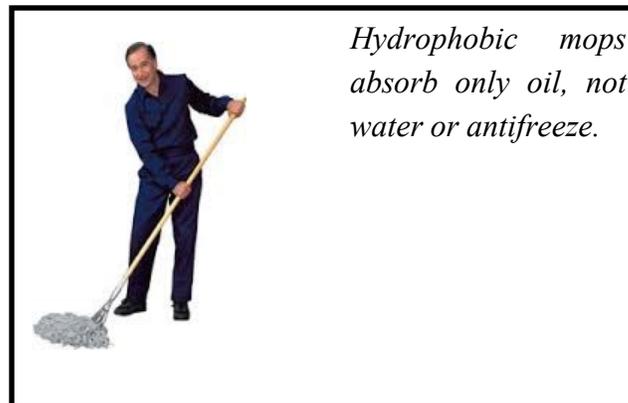
Floor Sweep (Grease Sweep, “Kitty Litter”, Rice Hull, etc.)

- These absorbents should be used only when the spill can not be cleaned with shop rags or dedicated mops.
- Use a hydrophobic mop.
- Restrict the use of these absorbents to cleaning up gasoline, solvent, or other dangerous waste chemical spills. Manage these contaminated absorbents as dangerous waste.
- Collect all metal filings, dust, and paint chips from grinding, shaving, and sanding, and dispose of properly. Collect all dust from brake pads separately and dispose of properly. Never sweep these wastes outside.
- Use dry cleaning methods (i.e. sweeping, vacuuming) to prevent the discharge of pollutants into the storm drain conveyance system.
- If cleaning agents are used, select biodegradable products.

Recommendations for Preventing and Controlling Spills

- Develop and maintain a spill response plan.
- Use "dry" cleanup methods inside the shop and at fuel-dispensing islands.
- Place clean-up supplies (absorbent pads, mops, buckets, etc.) in convenient areas.
- Use drip pans, indoors and outdoors, to control fluid leakage.

- Spot clean leaks and drips routinely.
- Minimize distance between waste collection points and storage areas.
- Store parts washers near work areas to avoid spills.
- Ensure no water from cleaning floors, parts or cars is discharged to the sanitary sewer or storm drain systems. Do not wet mop the floors, or put mop water in a drum for hauling by a licensed waste hauler.
- Clean parking lots by sweeping or using equipment that collects dirty water (which must be disposed of to sanitary sewer);
- To prevent spills around drums & tanks, use:
 - ⇒ Spout and funnel when adding fluids to waste drums; and
 - ⇒ Pump and spigot when dispensing new product; and
 - ⇒ Drain residual from pump back into original container.
- Use fully enclosed waste transfer system for waste liquids.
- Post a sign (at least 8½” x 5½”) above a shop sink area notifying employees: “Do Not Discharge Dangerous Wastes or Chemicals Down Drains or Outside Storm Drains”.
- Install your own closed loop vehicle washing system.



Spill Prevention Equipment

- Water troughs can be used for secondary containment (available from your local feed store). Insert waste drums into the trough. Ensure that the secondary containment item (trough) must hold at least 110% of the capacity of the largest drum with liquid waste.
- Benefits of using troughs as secondary containment can include:
 - ⇒ Cost effectiveness. Troughs are relatively inexpensive; and
 - ⇒ Water-tightness. Since troughs are used as drinking containers for livestock, they are engineered to be leak-free. However, the troughs must be checked regularly to ensure they remain water-tight.; and
- Clearly mark all stored materials; and
- Keep troughs clean and dry.



Funnel drum covers

- These items minimize spills when transferring liquids from one container to another.
- They also can be used to drain oil filters.



Bulk, pressurized, overhead fluid delivery

(available from all major motor oil manufacturers)

- Used for oil changes and lube jobs to reduce spills.
- Allows these jobs to be done more quickly.
- The equipment is often provided by the oil manufacturer at no charge.



For more information or technical assistance requests, contact the Washington State Department of Ecology's Hazardous Waste and Toxics Reduction Department.

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