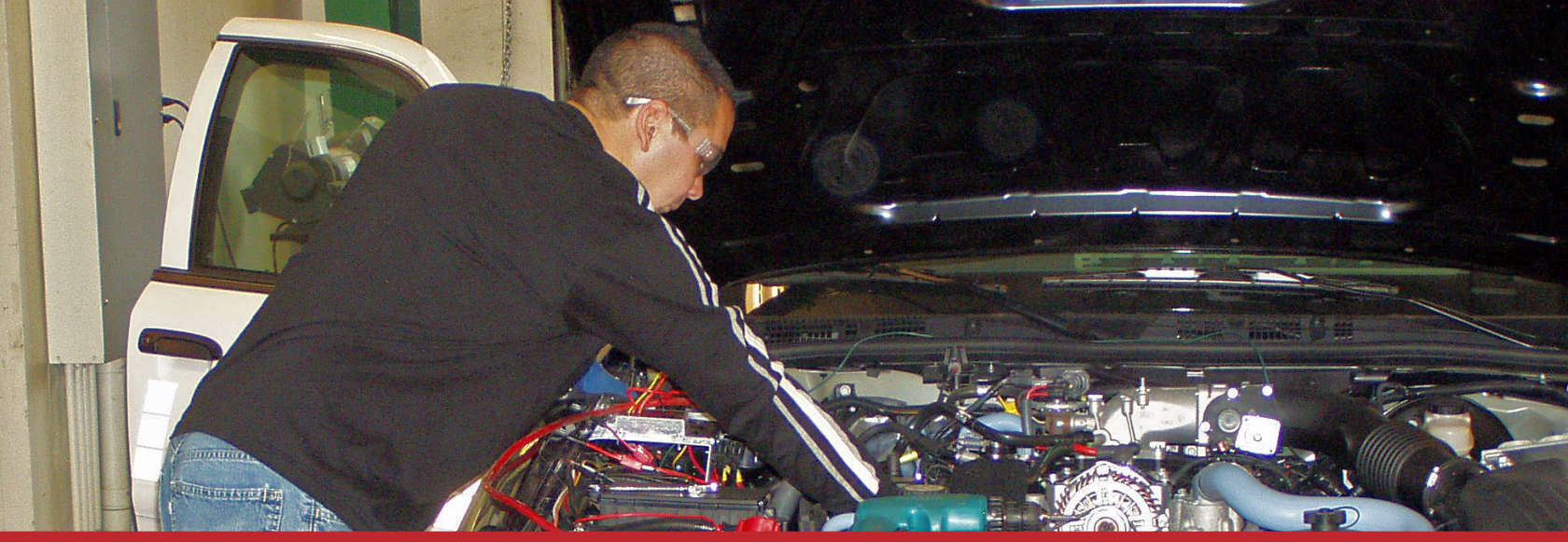

Auto Shops

Good Operating Practices

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INTRODUCTION

Automotive repair facilities and equipment yards play an important role in our community. However, maintenance, storage and repair of vehicles and equipment involve many substances that are extremely harmful to the environment. Fuel, solvents, metal shavings, lubricants, and other materials all have toxic effects if they are allowed to enter stormwater runoff. Also, bulk storage of waste oil and cleaning products, as well as batteries, paint and electrical components can be hazardous if the materials are not managed and contained properly.

Best Management Practices (BMPs) for Automotive Repair Facilities are good operating practices used to manage and control wastes, and minimize or prevent unlawful release of pollutants into the environment. During vehicle repair and maintenance activities, vehicle fluids may drip or spill and enter floor drains or sinks, or flow outside to catchbasins or ditches.

Automotive and equipment repair facilities can reduce waste, make their operations more efficient and save money by following BMPs and using the equipment described in this booklet. Conducting business in a way that protects groundwater, drinking water and our rivers and streams, can result in reduced costs, improved employee health and safety, and an improved public image.

Please be aware that it is against federal, state, and local law (under Section 5.002 of the Springfield Municipal Code) to discharge anything into stormwater system except stormwater. Anything that enters the stormwater system flows untreated into our local waterways where it may affect drinking water sources, wildlife, and recreational opportunities.

By implementing Best Management Practices that include:

- ✔ Preventing and managing spills,
- ✔ Proper wash water drainage connections,
- ✔ Using less harmful chemical cleaners and solvents,
- ✔ Recycling and properly storing waste fluids and used lead batteries,
- ✔ Clearly color-coding and labeling all waste containers,
- ✔ Training staff in waste management and spill prevention strategies, and
- ✔ Participating in educational outreach through a regional automotive repair education association…

YOUR GARAGE WILL WORK ON SEVERAL FRONTS TO PROTECT WATER QUALITY IN OUR COMMUNITY.

RUN A DRY SHOP

The purpose of spill control is to keep spills small and localized, to avoid discharges to the stormwater system or sanitary sewer system, and to reduce your cleanup expenses and liabilities. You can comply more easily with sewer and stormwater requirements by cutting down on the liquids you discharge intentionally or accidentally through spills. If you are successful, your shop's discharge will be limited to wastewater from your bathrooms going to the sanitary sewer and rain water from your roof and parking lot going to the storm sewer. This involves minimizing contaminated water produced by a shop through a variety of simple work practices. Some of the most well known and practiced examples are described below.

- ✓ Prevent spills from reaching the shop floor by installing secondary containment in storage areas; use safety cans, drip pans and trays, and funnel drum covers when transferring fluids; and by installing pressurized overhead fluid delivery systems, where appropriate.
- ✓ Immediate cleanup of spills can be promoted if employees carry reusable cloth rags for small spills; use absorbent materials such as hydrophobic mops for larger spills; and wring out absorbed fluids into suitable containers for reuse or recycling.
- ✓ Provide a variety of labeled spill control kits.
- ✓ Keep the floor clean and dry by sweeping every day; using only a damp mop for general cleanups; never hose or pressure wash work areas; and seal the shop floor with impervious materials, if possible. Sweeping aids, such as dry granular absorbents (kitty litter), help when cleaning up spills.

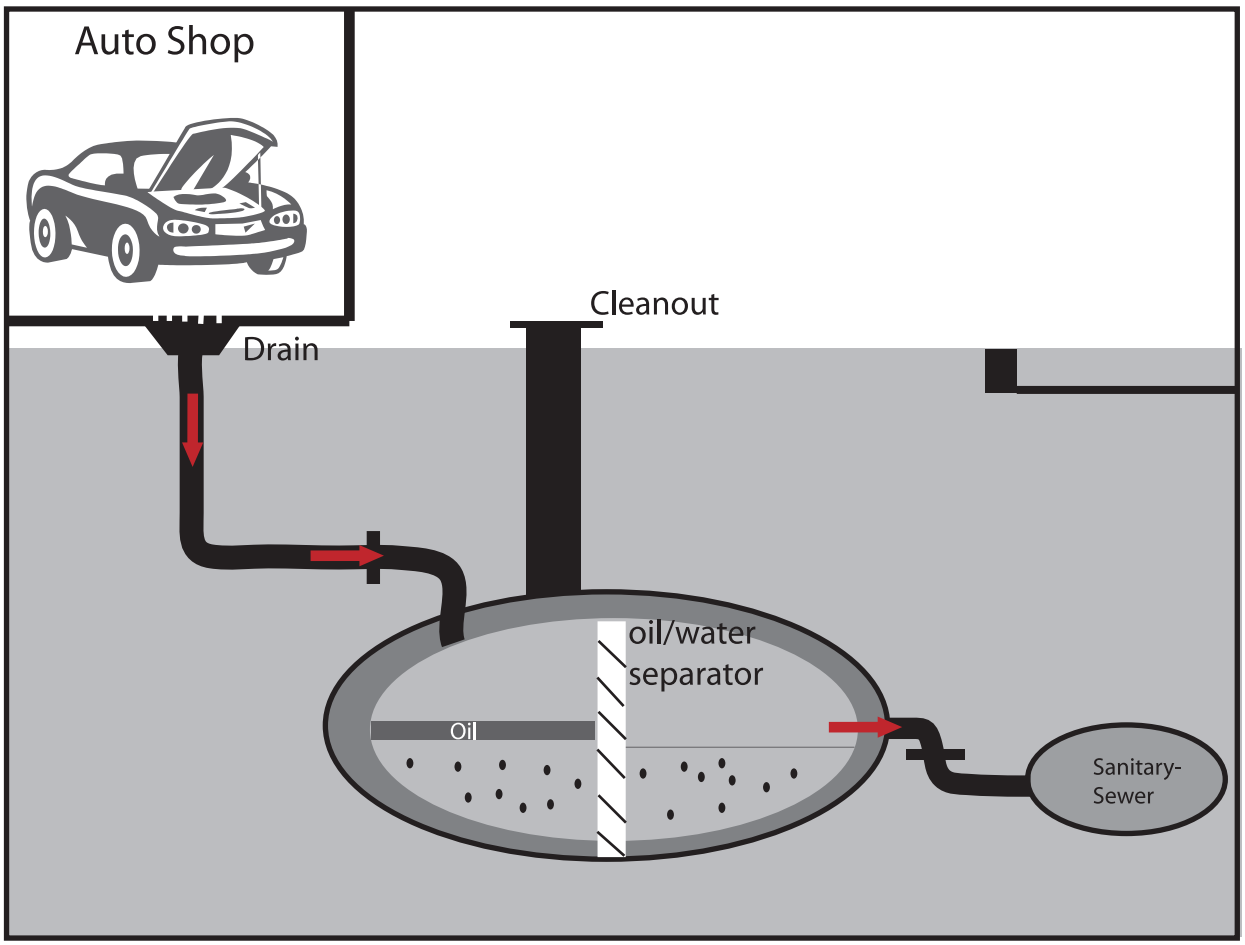
Top: examples of commercially available spill control kits
Bottom: examples of commercially available secondary containment systems

CONNECT FLOOR DRAINS TO HOLDING TANKS OR SANITARY SEWER

This BMP provides a method to dispose of potentially contaminated wash water through floor drains, if it is not possible to eliminate the use of water altogether. If using an above ground or underground holding tank, make sure it meets all federal, state, and local requirements, monitor the fluid level and schedule regular pump-outs by certified waste haulers, and regularly check for leaks and drips.

When connecting floor drains to a municipal sanitary sewer, make sure the hookup is legal and approved by the City of Springfield Public Works Department as allowable sanitary discharge water. NEVER connect floor drains to a storm drain or the stormwater system.

Closing the loop on many of your services and processes by reusing solvents, cooling waters, and other catalysts can help reduce or eliminate the need to discharge wastes. The less waste generated, stored or discharged, the lower your regulatory and permit requirements.



SUBSTITUTE LESS TOXIC/NON-HAZARDOUS PRODUCTS FOR CARBURETOR CLEANERS & SOLVENTS CONTAINING CHLORINATED COMPOUNDS

Chlorinated compounds are considered hazardous. Their use and potential threat to drinking water supplies can be reduced by doing the following:

- ✔ Substitute alternative non-hazardous cleaners for hazardous carburetor cleaners and solvents;
- ✔ Separate carburetor cleaner from other wastes;
- ✔ Minimize the use of sprays containing Volatile Organic Compounds or use sprays that are VOC free;
- ✔ Clean parts in batches instead of cleaning individual parts; and
- ✔ Use a drop cloth or absorbent pad/rag to catch runoff if cleaners are sprayed and are unable to be contained in a cleaning tray or sink.

MANAGE PARTS & WASHING SOLVENT WASTES

These strategies are designed to minimize and properly manage solvent wastes that result from the cleaning of parts:

- ✔ Bulk-clean parts in a containment sink or tray;
- ✔ Use alternative cleaning products that are more environmentally friendly;
- ✔ Separate solvent waste from other wastes; and
- ✔ Use funnel drum covers when pouring waste into waste drums. Always use approved waste containers designed for storing and transporting the material to a recycler.

MANAGE OIL WASTE STREAMS

This BMP uses techniques to handle and manage new and used oil including oil filters. Best Management Practices for waste oil are as follows:

- ✔ Catch oil dripping from parts, transfer funnels, and vehicles in drip pans;
- ✔ Dispose of oil filters as recyclable waste products along with the oil;
- ✔ Keep used oil in separate secure containers that are clearly marked; and
- ✔ Use funnel drum covers when pouring waste into waste drums and always use approved waste drums designed for storing and transporting the material to a recycler.

MANAGE SOLID WASTES INCLUDING 55-GALLON DRUMS

This strategy is used to manage and properly dispose of various solid and liquid wastes being reused and recycled. The main goal of proper waste storage is to keep different kinds of wastes separate. Separate storage of used oil, antifreeze or solvents allows you to recycle wastes that might otherwise be considered hazardous. Keep your non-recyclables separate, too. The services of a reliable and dependable supplier/recycler will be necessary. BMPs for drums being used or collected include:

- ✓ Empty drums should contain no residual materials inside, outside, or on the top; dispose/recycle unused drums whenever possible;
- ✓ Drums should be structurally sound without big dents or rust and regularly inspected for cracks, leaks, etc.;
- ✓ Drums should be located in protected areas clearly visible to prevent damage from motor vehicles or forklifts;
- ✓ Open drums should be covered with lids sealed by heavy-duty bolt clamps, snap rings, or bungees;
- ✓ Drums should be placed off the ground or on an impermeable surface in a covered containment area to prevent corrosion and discharges to groundwater;
- ✓ Drums should be stored away from the eaves of a roof and any heat sources;
- ✓ Drums should be located away from wetlands, surface water, wells, property lines, flood zones, and drainage areas;
- ✓ Drums should not be covered with other materials where they may become forgotten, knocked over, or develop unseen leaks;
- ✓ Drums being used must be labeled and face "out" so as to be easily read, and accessible year round in case of fire, removal, or spills.

TOOL BOX TIP

Before you buy new products, think about how you'll have to manage the empty containers. Can you purchase the material in containers that can be returned and refilled? Can the empty containers be reconditioned and reused? Can they be recycled? Without purchasing more than you need, can you buy the product in one large container rather than several small ones? Making wise purchasing choices up front can reduce the amount of waste you must manage. Recycle empty containers whenever possible.

TRAIN YOUR EMPLOYEES AND YOURSELF

High performance shops require well-trained employees. Employee misunderstandings about how to handle waste could lead to a costly pollution incident or injuries. Implement practices to generate less waste through effective employee training. Educate employees about the benefits of preventing pollution, the location of Material Safety Data Sheets (MSDS), and basic first aid. Employees should be re-trained periodically to keep good operating practices in mind, and be informed of new regulatory requirements as they change.

Accessible material safety data sheets (MSDSs) & eye-wash stations

USE EFFECTIVE COMMUNICATION

Basic shop practices should involve reminding employees about pollution prevention, spill avoidance and control procedures, and emergency response information through the effective use of signs, posters, and other techniques.

KEEP GOOD RECORDS

Fundamental business management practices are important to track pollution prevention efforts and other benefits gained by using BMPs. Facility plans and permits should be regularly updated. Supply inventory, waste disposal, and recycling records should be maintained to track materials used and the savings linked to the reduction of wastes.

TOOL BOX TIP

Sample Employee Training Checklist

- ✓ Does your shop train new employees before their first assignment?
- ✓ Has your shop informed employees of the different types of chemicals and the hazards associated with them?
- ✓ Has your shop trained employees in the use of proper work practices, personal protective equipment and clothing, and other controls to reduce or eliminate their exposure to the chemicals in their work areas?
- ✓ Does your shop explain how to read and use an MSDS?
- ✓ Has your shop developed a system to ensure that all incoming hazardous chemicals are checked for proper labels and data sheets?
- ✓ Has your shop developed a way to identify and inform employees of new hazardous chemicals before they are introduced into a work area?

Best Management Practices

RECYCLING SERVICES FOR USED MOTOR OIL, OIL FILTERS AND ANTIFREEZE

Waste oil and oil filters can combine with other chemicals to contaminate groundwater when improperly disposed of in landfills. To prevent contamination drain oil filters for 2-5 days into a used oil collection system. Contact your recycler about the way you need to crush or store filters for recycling. Often, used motor oil from drained filters is combined with used oil from automobiles and can be re-used directly in an oil burning space heater, or recycled. Never dispose of oil or antifreeze down the drain.

The cleanest way to recycle antifreeze is through a mobile pump station. By directly pumping antifreeze through this system, no spillage occurs. This service procedure is similar to an air conditioning service system.

FLUIDS MANAGEMENT AND SPILL RESPONSE

Clearly label and color-code all waste fluid containers. This will help to ensure that employees will not accidentally combine different fluids. By carefully coding containers and training staff on fluid management and proper spill prevention techniques, you will protect the personal safety of your employees, generate less waste and protect your facility from fire and spills. In addition, your shop will present a professional image to your customers.

Have spill cleanup equipment such as absorbent materials available in each service bay for quicker response. Absorbent materials (pads, mats, hydrophobic mops, and dry granular products) should be used to remove medium-size or larger spills. All fluid transfers should be conducted within service bay areas, not outside. All Material Safety Data Sheets (MSDS) and first aid equipment should be located in a quick and accessible location.

Oil filters draining into a collection system.

A technician tests antifreeze at a mobile pump station that is connected directly to the vehicle's radiator. The antifreeze will be recycled.

LEAD BATTERY DISPOSAL

Lead is a powerful toxin, and can contaminate groundwater and accumulate in humans to dangerous levels. The acid contained in batteries is a hazard to exposed skin and eyes, as well as the environment. Lead contained in used batteries represents almost 80% of the total domestic lead use in the United States. Improper disposal of automotive batteries may allow lead and battery acid to migrate into groundwater. Oregon law requires that automotive service facilities recycle lead batteries. By collecting the batteries and returning them to an authorized battery manufacturer or an authorized collection/recycling facility, your facility is helping to remove the threat of lead pollution to groundwater.

Store batteries in a clean and dry place where they will not be damaged or tipped by moving equipment. If batteries show signs of leaking, place them in a containment pan. Do not store batteries for extended periods of time, and recycle often.

FLOOR DRAIN REMOVAL OR PROPER FLOOR DRAIN CONSTRUCTION

Some facilities may drain service bay areas through floor drains. While different federal, state, and local regulations apply to the construction and maintenance of these floor drains, they can still serve as a direct conduit to the groundwater and may contaminate groundwater supplies.

Contact the City of Springfield or a plumbing company to determine system connections. Oregon DEQ regulates non-municipal connected floor drains through an Underground Injection Well (UIC) program. This program may require connecting to a sanitary sewer or approved holding tank. Approval from the City is required before sealing or connecting the drain. Please refer to the Oregon Department of Environmental Quality UIC program for more information on non-municipal connected floor drains.

VEHICLE AND EQUIPMENT WASHING

Wash water from vehicle and equipment cleaning activities performed outdoors or in areas where wash water flows onto the ground can contribute toxic hydrocarbons and other organic compounds, oils and greases, nutrients, phosphates, heavy metals, and suspended solids to stormwater runoff. Use of the procedures outlined below can prevent or reduce the discharge of pollutants to stormwater during vehicle and equipment cleaning. Most car washing best management practices are inexpensive, and rely more on good housekeeping practices than on expensive technology.

- ✓ If possible, use off-site commercial washing and steam cleaning businesses. These businesses are better equipped to handle and properly dispose of the wash waters.
- ✓ Use biodegradable, phosphate-free detergents for washing vehicles as appropriate.
- ✓ Mark the area clearly as a wash area, to ensure wash water is routed to the appropriate drain.
- ✓ Provide a trash container in the wash area.
- ✓ If washing/cleaning must occur on-site, consider washing inside the building or on an impervious surface to control the wash water by directing it to the sanitary sewer after receiving approval from the City.
- ✓ Do not conduct oil changes and other engine maintenance in the designated washing area. Perform these activities in a place designated for oil change and maintenance activities, that is equipped to handle spills.
- ✓ Install sumps or drain lines to collect wash water for treatment.
- ✓ Use hoses with nozzles that automatically turn off when left unattended.
- ✓ Do not permit steam cleaning wash water to enter the storm drain.
- ✓ Pressure and steam clean off-site to avoid generating runoff with high pollutant concentrations. If done on-site, no pressure cleaning or steam cleaning should be done in areas designated as wellhead protection areas for public water supply.
- ✓ Consider filtering and recycling wash water.
- ✓ Sweep washing areas frequently to remove solid debris.
- ✓ Inspect and maintain sumps, oil/water separators, and on-site treatment/recycling units.

TOOL BOX TIP

Even biodegradable soap is toxic to many types of aquatic life. The term "biodegradable" doesn't mean that something is safe for plants and animals—it just means that the substance will break down at some time in the future.

CAR PREP, BODY WORK AND REFINISHING

Filings, masking tapes, overspray papers, thinners and equipment filters may or may not be hazardous. Paints with heavy metals such as lead, nickel or chromium and thinners with their high ignitability and toxicity are the most likely to be hazardous. Filler dust from sanding, by itself, is not typically hazardous. Refinishing operations also lead to ozone-producing air pollution. It is your responsibility to determine if your activities and wastes warrant compliance with hazardous materials and air regulations.

- ✓Use spray booths and closed or recirculating systems for painting and spray gun cleanup. To clean spray equipment, use a system that minimizes solvent evaporation, recirculates solvent, and collects spent solvent for proper disposal or recycling. This equipment can save an average of 7 ounces of paint per cleaning.
- ✓Use only DEQ/EPA compliant wash primers, precoats, primers, sealers, multi-stage coatings, specialty coatings and topcoats.
- ✓Use the least amount of raw product and materials possible. Use High Volume Low-Pressure (HVLP) equipment with the proper tip to reduce paint usage. Contact your paint supplier or DEQ Business Assistance staff at 503-229-6147 to ask about training opportunities on efficient coating techniques.
- ✓As spray gun solution gets dirty, add makeup thinner or solvent.
- ✓Recover and reuse solvents by decanting (separating sludge from liquid) or filtering. For large amounts, distill waste liquids.
- ✓Determine which materials and wastes are hazardous. Follow proper handling, storage, recycling, disposal, and manifesting requirements.
- ✓Conduct sand blasting in a controlled area, and immediately clean up spent sand and paint chips. Never expose spent sand to rain or stormwater.

- ✓Don't cause nuisance problems by painting outdoors, in uncontrolled areas, or in unfiltered paint booths.
- ✓Don't expose paints, solvents, and cleanup wipes to the air. Store them in airtight containers.
- ✓Don't get in the habit of mixing a standard amount of paint or other material for every job. Mix only the amount you will use.
- ✓Don't use thinners if you can avoid it. Consider using water based cleaners that have no VOC emissions.
- ✓Don't use fresh solvents to clean spray guns. Use recycled waste thinners and reuse gun wash solvents.
- ✓Don't mix wastes. In doing so, you may increase the amount of hazardous waste you must deal with or prevent pure waste stream from being reusable or recyclable.

TOOL BOX TIP

Cleaning paint guns manually is time consuming, labor intensive, exposes workers to harmful solvents and paints, and can generate significant quantities of solvent waste. An alternative is an automatic cleaning system. Automatic gun washers can reduce the amount of solvent used and paint solvent waste generated by up to 80 percent compared to manual paint gun cleaning. Because automatic gun washers are sealed recirculation units, exposure to hazardous materials during solvent handling and from volatile organic compound (VOC) and hazardous air pollutant (HAP) emissions are greatly reduced.

AUTO RECYCLING

Cars and parts stored for reuse can present environmental problems. Drips, leaks and spills from stored vehicles can cause significant impacts to the environment.

- ✓ Drain and properly store fluids removed as part of the dismantling procedure or before crushing the vehicles. These fluids include:
  - Fuel
  - Motor Oil
  - Transmission Fluid
  - Brake Fluid
  - Antifreeze
  - Refrigerant
- ✓ Remove and store all batteries in a covered storage area on an impervious surface or in leak- proof plastic containers with lids.
- ✓ Remove mercury switches from all hood and trunk lighting fixtures. Store switches in a closed receptacle clearly marked "Waste Mercury Switches." Take special care with switches encased in glass. Contact NATA at 503-253-9898 for information about collection and disposal options.
- ✓ Assure that all wash waters and solvents are recaptured onsite for recycling or disposal.
- ✓ Don't store fluids outside if at all possible. Ideally, fluids should be stored in closed, well-marked containers inside a building. If fluids must be stored outside, assure there is adequate secondary containment.
- ✓ Don't assume that all metal parts and scrap metals are clean. Store any metals contaminated with oily residues as you would fluids - inside in a covered container. Engines and transmissions should always be stored either under a permanent roof on an impervious surface, or outside in a weather and leak-proof container.
- ✓ Don't forget to follow regulations governing refrigerant removal. Make sure you use the appropriate recovery machine (R-12 or R-13). Use certified machine operators and licensed vendors for recycling and disposal services.
- ✓ Don't store large quantities of tires on-site. Tires are unsightly, can breed mosquitoes, house unwanted rodents, and can leach materials into stormwater runoff. Recycle or dispose of tires regularly.

TOOL BOX TIP

Did you know...

- ✓ It takes 42 gallons of crude oil to yield 2.5 quarts of lubricating oil.
- ✓ When used oil is recycled, it takes about one gallon to yield 2.5 quarts of lubricating oil.
- ✓ Used oil from a single oil change can contaminate a million gallons of water.
- ✓ Used oil is the largest single source of pollution in our nation's waterways.
- ✓ Used oil can contain toxic substances such as arsenic, benzene, cadmium, lead, and zinc.
- ✓ There are 1.2 billion gallons of waste oil generated annually in the United States.

CONCLUSION

Implementing BMPs in your shop will help you to manage and control waste, minimize or prevent unlawful release of pollutants into the environment, make operations more efficient and save you money. At the same time, you will have a peace of mind that you are conducting business in a way that protects drinking water and our environment.

Reducing pollution may not be as hard as you think. To ensure your shop is doing everything possible to protect water quality in our community, take a few minutes to complete the attached Self-Evaluation Questionnaire for Auto Repair Facilities. Return your complete evaluation to Springfield City Hall, Environmental Services Division to receive a Clean Water Business window sticker.

You can also refer to the contacts provided on page 13 for additional help as you work towards keeping your shop in tune with the environment.

If you have put this booklet to use and made the recommended changes, you can be proud of your environmental improvements. You have joined the ranks of automotive professionals who help limit the environmental impacts of their shop's activities. It is only right for you to show off what you have accomplished. Being a mentor to other shops is a good way to spread the environmental message.

TOOL BOX TIP

What should be in your spill control kit?

- ✓ Absorbent socks or booms
- ✓ Absorbent pillows and pads
- ✓ Oil dry absorbent
- ✓ Broom and shovel or dust pan
- ✓ Disposable bags or other containers and marking pens
- ✓ Safety goggles
- ✓ Plastic gloves and dust mask
- ✓ Proper instructions for disposal

ACKNOWLEDGEMENTS

City of Worcester
455 Main Street
Worcester, MA 01608
Phone: (508) 799-1175

Van Batenburg's Garage, Inc.
24 Wells Street
Worcester, MA 01608
Phone: (508) 753-2431

Worcester County Conservation District
Medical Arts Center Building
52 Boyden Road, Room 100
Holden, MA 01520-2587
Phone: (508) 829-4477

CONTACTS

For information about the Ecological Business Program or additional Pollution Prevention Coalition programs call (541) 682-8625.

For more information about state and federal requirements about proper waste management and disposal, call the Oregon Department of Environmental Quality, Regional Office, at (503) 686-7838.

For more information about recycling and proper solid and hazardous waste disposal options, call Lane County Waste Management Division at (541) 682-4120. This is also the number to call for information about Conditionally Exempt Generator program eligibility for Hazardous Waste.

For information about local sewage, stormwater and solid waste disposal ordinances and recycling options, call the City of Springfield Environmental Services at (541) 726-3694.

Additional information
Oregon OSHA, Health and Safety, (503) 229-5910
State Fire Marshall, (503) 378-3473
Lane Regional Air Protection Agency, (541) 736-1056

Is your shop ECOBIZ Certified?

As an EcoBiz auto shop you receive educational materials, technical assistance and free publicity.
Use the contact info below to learn more about EcoBiz.

Pollution Prevention Excellence
An Eco-Logical Business

website: www.p2c.org/Ecobiz.htm
Phone: 541.682.8625
Sponsored by the Lane County Pollution Prevention Coalition

Clean Water Business

Return
the following
Self Audit and receive
a free Clean Water Business
window cling. Drop the audit off
at Springfield City Hall, Environmental
Services Division or mail it to:
Environmental Services
Attn. Shawn Krueger
225 Fifth Street
Springfield, OR 97477

SELF AUDIT

Self-Evaluation Questionnaire for Auto Repair Facilities

The following Self-Evaluation Questions are intended to help you, the owner of a repair facility, better understand what you can do to ensure a clean environment. Take a few minutes to read through the questions, and see if there are measures you can take to ensure that your site is doing everything possible to protect water quality in your community.

Keep Automotive Chemicals in Their Place

Springfield's drinking water is supplied by a system of wells, located in wellfields throughout the city. Automotive fluids, such as antifreeze or petroleum products, that end up on paved areas or on the ground find their way into the groundwater and eventually into our drinking water. Stormwater and other surface waters do not get treated at a treatment plant before being discharged to our rivers. Good housekeeping and safe material handling keeps fluids out of the environment.

Does your facility do the following?:

Have spill kits readily available to absorb regular and hazardous material spills, including absorbent booms, kitty litter, etc.?
Yes ☐ No ☐

Store bulk chemicals, solvents, cleaners, and paint in spill-proof containers, including spill/drip pans under the outlets?
Yes ☐ No ☐

Do you use a vendor who properly recycles or manages the solvent from your parts wash station?
Yes ☐ No ☐

Are spills prevented from ever reaching the floor through use of drip pans and trays under vehicles, use of funnel drum covers, or fluid delivery systems to reduce spills?
Yes ☐ No ☐

Are all hazardous materials stored in their original containers or a manner that prevents spillage, prevents rain or snow from falling on them, and are clearly labeled?
Yes ☐ No ☐ Mostly ☐

Do all employees, including yourself, know the location of spill cleanup materials, and how to use and dispose of them?
Yes ☐ No ☐

SELF AUDIT

Shop Floors and Drains – Where it Starts

Older buildings may have inside floor drains plumbed to outside stormwater systems which lead to rivers and streams. These drains can be a direct pathway for spills, dirt, and grime from the shop floor to enter our waterways or drinking water. Good housekeeping is an important first defense, but eliminating floor drains or ensuring they're properly plumbed to the sanitary system is key.

Contact your municipality or a plumber to check your shop's floor drains for proper connection, or arrange to seal drains yourself.

Is your facility run as a "dry shop" (i.e., a shop that has sealed all its floor drains, or has none)? Yes ☐ No ☐

Does your shop ensure that work is done in work areas that do not drain to floor drains or to the outside? Yes ☐ No ☐

Do you clean work area floors frequently, using dry sweeping, or by collecting all liquids using a wet-dry vacuum?
Yes ☐ No ☐

Do you know where your floor drains are draining to? Yes ☐ No ☐

Are employees provided with reusable cloth rags rather than paper towels? Yes ☐ No ☐

Vehicle Storage, Parking Lots, and Outside Work Areas

Cleaning motors, gear cases, or other parts can generate lots of greasy dirt and residue. This material should be managed and disposed of properly, including any cleaners or solvents used to rinse or clean parts. Many times, cars waiting for service, especially where accident damage is present, leak oils, antifreeze, or battery acids on parking areas which drain to the ground or to surface waterways.

Does your facility provide pans or absorbents for customers' leaking vehicles stored on the lot awaiting service? Yes ☐ No ☐

Does your facility reduce contact between stormwater flows and work-related surfaces, through measures like supplying drip pans for leaky vehicles, using dry cleanup methods (as appose to using a hose) to cleanup spills, covering outdoor storage materials, etc.? Yes ☐ No ☐

Are vehicles parked away from sensitive areas (i.e., parking lot swales) to prevent the discharge of pollution to: Surface waters? Yes ☐ No ☐ , Groundwater protection areas? Yes ☐ No ☐ , Wellhead protection areas? Yes ☐ No ☐

Do you avoid cleaning parts outside, or in areas where the residue can find its way to the stormwater system or to the ground? Yes ☐ No ☐

Most repair facilities have parking lots with storm drains to capture rainwater. Reasonable maintenance for parking lots includes cleaning these drains or catch basins of accumulated sediment, oil, and grease annually. Are your parking lot catch basins maintained periodically? Yes ☐ No ☐

Washing or pressure washing parts outside is one common way that automotive shops cause groundwater contamination. Does your shop clean parts inside with wire brushes or rags, and then in a self-contained solvent washer? Yes ☐ No ☐

SELF AUDIT

Vehicle Washing

Vehicle washing introduces soap, sediment, and oils and grease into surface waterways if wash water is allowed to flow to outside storm drains. This is especially true when using steam, strong detergents, or washing greasy parts, motors, or undercarriages. Springfield requires that any commercial car washing processes not use hot water or soap if draining to the storm system. Sound practices include limiting the amount of water, avoiding soaps (including "Bio-degradable" cleaners), and using only cold water.

If you wash vehicles, do you use any measures (e.g., low-flow hose nozzles or nozzles fitted with a pistol grip, etc.) to minimize the quantity of wash water used? Yes ☐ No ☐ I don't wash ☐

Do you avoid using strong detergents or solvents when washing, and avoid washing undercarriages or oily greasy parts outside? Yes ☐ No ☐

Has your operation investigated using a commercial car wash to quickly and efficiently wash vehicles, instead of hand-washing them on-site? Yes ☐ No ☐

Hazardous Material Management and Record Keeping

OSHA requires that facilities keep health and safety information on all chemicals used in the workplace, and ensure that all employees know the location of, and have access to, this information. This is provided through Materials Safety Data Sheets (MSDS) supplied with the chemicals upon purchase, and is typically available from the manufacturer via the internet. These sheets should be kept in a clearly-labeled binder at a central location in the shop to meet OSHA requirements.

Does your facility maintain a file of MSDS, and train all employees on their location? Yes ☐ No ☐

Do you have a written plan or drawing that shows all floor drains, pipes, cleanup equipment, areas for storage of hazardous materials, fire safety and control equipment, and waste disposal bins? Yes ☐ No ☐

Are job responsibilities clearly defined so that specific individuals are responsible for ensuring that pollution prevention measures, such as re-stocking spill kits and ensuring that recycling is done, are carried out? Yes ☐ No ☐

Oily or solvent-soaked rags can present a serious fire hazard if not handled properly – including spontaneous combustion. Are there approved fireproof safety cans for disposal of used dirty rags and other materials, and are these properly disposed of or recycled? Yes ☐ No ☐

Do you keep fire extinguishers readily available, frequently inspected, and fully-charged? Yes ☐ No ☐

SELF AUDIT

Training, Education, and Record Keeping

A high-performing shop requires well-trained employees. Employees' misunderstanding about how to handle waste can lead to wasted materials, extra time cleaning up, a dirty and disorganized shop, or a costly pollution incident. Don't assume one training session is enough. Reinforce the pollution prevention activities listed in this booklet with signs, notices, or other reminders. Routinely inspect shop equipment and procedures. Consider designating one person or a team to be responsible for safety, recycling, and pollution prevention, with a perk for taking on the task and doing it well.

Are all employees, including yourself, trained in:

Procedures for preventing pollution and spillage?	Yes ☐	No ☐
Safe and legal disposal methods?	Yes ☐	No ☐
Proper procedures for reporting of spills?	Yes ☐	No ☐
Procedures for worker safety and public health?	Yes ☐	No ☐
The location of the MSDS book?	Yes ☐	No ☐

Is such training done on a regular basis (perhaps annually) and for all new employees? Yes ☐ No ☐

Are regular inspections, safety checks and monitoring of conditions carried out and the results written down in a logbook or other means of permanent documentation? Yes ☐ No ☐

Are accurate records kept of all hazardous materials bought, stored and used, and their expiration dates, if any? Yes ☐ No ☐

Are accurate records kept concerning disposal or recycling of materials (including a formal 'Chain of Custody' form for hazardous materials), which describe what, when, and where the material was disposed of, and the name of the responsible party? Yes ☐ No ☐

Assessment Results

Improving a business's housekeeping practices is often the easiest and least expensive way to reduce waste, cut costs, and enhance your customers' image of your business. Good housekeeping includes good inventory control and efficient operating procedures, as well as keeping the operation clean and organized. An organized facility doesn't cost more, it actually pays off in increased worker satisfaction, greater efficiency, and material savings. It also adds a professional business look to your facility which enhances customer comfort and satisfaction, which results in more business for you.

If you have answered yes to most or all of the above questions, congratulations! You are probably conducting business in a manner that helps to protect our rivers, streams, and drinking water supply. If many of your answers are no, or you have questions concerning these measures, please study the BMPs in this booklet closely. You may also contact Shawn Krueger with the City of Springfield Environmental Services Division, at 726-3626, for additional information or assistance with how you can make your business "Cleaner and Greener".

Reminder! Return your completed evaluation to Springfield City Hall, Environmental Services Division to receive a Clean Water Business window sticker.

Prepared by the City of Springfield
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