

CITY OF SALEM, UT

Businesses and Pollution Prevention

Stormwater runoff from industrial and commercial properties can be a major source of pollution that affects local waterways. Because stormwater (rainwater runoff) drains directly to waterways without filtration or treatment, controlling potential pollutants at business facilities is key to protecting water quality.

Businesses with outdoor operations, particularly those that process/store materials or repair/store vehicles outdoors, have the greatest potential to release pollutants. Proper storage of chemicals and materials, cleaning spills and leaks, and the use of covers and barriers can prevent pollutants from washing into stormwater drainage systems. Preparation and training for managing spills and the implementation of common pollution prevention *Best Management Practices* allow businesses to protect the community and environment while maintaining their own business objectives.

Automotive Service – Maintenance

Description

This category includes facilities that conduct general maintenance and repair on vehicles including:

- General repair shops
- Radiator repair shops
- Car dealerships
- Car washes

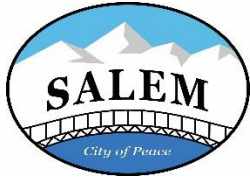
Pollutant Sources

The following are sources of pollutants:

- Changing oil and other fluids
- Cleaning engines and parts
- Flushing radiators
- Washing cars and other vehicles

Pollutants can include:

- Heavy metals (copper, lead and zinc)
- Hydrocarbons (oil and grease, PAHs)
- Toxic chemicals (solvents, chlorinated compounds, glycols)
- Acids and alkalis



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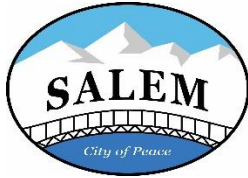
Approach

Minimize exposure of maintenance areas to rain and runoff by using cover and containment. In and around these areas, use good housekeeping to minimize the generation of pollutants. Make stormwater pollution prevention BMPs a part of standard operating procedures and the employee training program. Provide employee education materials in the first language of employees, as necessary.

Source Control BMPs

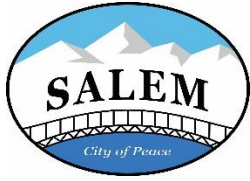
The best management practices are listed by activity or area.

Changing Oil and Other Fluids	<p>Waste oil, antifreeze, and other vehicle fluids contain toxic chemicals and heavy metals from wear and tear of engine parts.</p> <ul style="list-style-type: none">• Whenever possible, change vehicle fluids indoors and only on floors constructed of non-porous materials. Avoid working over asphalt and dirt floors – surfaces that absorb vehicle fluids.• If vehicle fluids must be removed outdoors, always use a drip pan. Prevent spills from reaching the street or storm drain by working over an absorbent mat and covering nearby storm drains, or working in a bermed area. If necessary, you can use absorbent socks to create a bermed area.• When draining fluids into a drain pan, place a larger drip pan under the primary drain pan to catch any spilled fluids.• Transfer used fluids drained from vehicles to a designated waste storage area as soon as possible. Drain pans and other open containers of fluids should not be left unattended unless they are covered and within secondary containment.• Store waste containers of antifreeze and oil within secondary containment. Antifreeze and waste oil should be stored separately and recycled, or disposed of as hazardous waste.• Never pour vehicle fluids or other hazardous wastes into sinks, toilets, floor drains, outside storm drains, or in the garbage. These substances should be kept in designated storage areas until recycled or safe disposal.• Drain fluids from leaking or wrecked vehicles as soon as possible, to avoid leaks and spills.
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Cleaning Engines and Parts, and Flushing Radiators	<p>Solvents and other engine cleaning fluids are hazardous to employees and can cause pollution in storm sewers and nearby creeks and streams.</p> <ul style="list-style-type: none">• Eliminate discharges from these operations to the sanitary sewer and storm drains. Use a licensed service to haul and recycle or dispose of waste.• Designate specific areas or service bays for engine, parts, or radiator cleaning. Do not wash or rinse parts outdoors.• Inspect degreasing solvent sinks regularly for leaks, and make necessary repairs immediately.• Rinse and drain parts over the solvent sink or tank, so that solvents will not drip or spill onto the floor. Use drip boards or pans to catch excess solutions and divert them back to a sink or tank.• Collect and reuse parts cleaning solvents and water used in flushing and testing radiators. When reuse is no longer possible, these solutions may be hazardous wastes, and must be disposed of properly.• Never discharge cleaning solutions used for engines or parts into the sewer system without adequate treatment. Most facilities have these solutions hauled offsite as hazardous waste because of the permits necessary for onsite treatment.• Never discharge wastewater from steam cleaning, or engine/parts cleaning to a street, gutter, or storm drain.
Washing Cars and Other Vehicles	<p>Regular Activity</p> <ul style="list-style-type: none">• If car washing is a central activity of your business, the preferred option is to treat and recycle the wash water.• Designate a vehicle washing area and wash cars and trucks only in that area. This “wash pad” should be bermed or protected from storm drains and should drain to an oil/water separator before discharging to the sewer.• Minimize the use of acid-based wheel cleaners. These products may require additional treatment (beyond oil/water separation) before discharge to the sewer.• Even biodegradable soap is toxic to fish and wildlife. Whenever possible, take vehicles to a commercial car wash.• If soap is used in washing, the wash water must be collected and discharged, preferably with treatment, to the sanitary sewer. This water cannot be discharged to a storm drain.• Never rinse off spray-on acid-based wheel cleaners where rinse water may flow to a street, gutter, or storm drain.• Always protect the storm drains from solvents used to remove protective coatings from new cars. Discharges of these solvents to the sanitary sewer must receive adequate treatment and approval of the local municipal wastewater utility.



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Keeping a Clean Shop

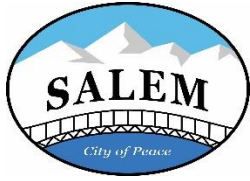
Good housekeeping practices minimize liability, reduce costs, and make it easier to detect spills and potential problems.

<p>Good Housekeeping Practices</p>	<ul style="list-style-type: none"> • Use drip pans under leaking vehicles to capture fluids. • Sweep or vacuum the shop floor frequently. Use mopping as an alternative to hosing down work areas. • If mopping is used to clean shop floors: <ol style="list-style-type: none"> 1. Spot clean any spilled oil or fluids using absorbents or rags. 2. Use dry cleanup methods. Sweep the floor using absorbents. 3. After steps 1 and 2 above (if mopping is still needed), mop and discharge mop water to the sanitary sewer. • Do not pour mop water into the parking lot, street, gutter, or storm drain. • Regularly sweep parking lots and areas around your facility instead of washing them down with water. • Collect all metal filings, dust, and paint chips from grinding, shaving, and sanding, and dispose of the waste properly. Never discharge these wastes to the storm drain or sanitary sewer. • Send rags to an industrial laundry. • Consider using an oleophilic mop (picks up oil and not water) to reduce the volume of waste liquids you collect and reduce your cost for disposal.
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Storage

Appropriate storage protects your shop from hazardous spills. Consult your local hazardous waste agency for details. (See your Material Safety Data sheets for further information)

<p>Proper Material and Waste Storage Guidance</p>	<ul style="list-style-type: none"> • Store hazardous materials and wastes where they are protected from rain and in a way that prevents spills from reaching the sanitary sewer or storm drain. • Keep lids on waste barrels and containers, and store them indoors or under cover to reduce exposure to rain. • All hazardous wastes must be labeled according to hazardous waste regulations. Consult the fire department or your local municipal waste management and recycling agency for details. • Keep wastes separate to increase your waste recycling/disposal options and to reduce your costs. • Never mix waste oil with fuel, antifreeze, or chlorinated solvents. Consult your hazardous waste hauler for details.
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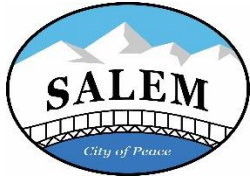
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	<ul style="list-style-type: none"> • Double-contain all bulk fluids to prevent accidental discharges to the sewer and storm drain. Consult the fire department or municipal waste management and recycling agency for details. • Carefully transfer fluids from drip pans or collection devices to designated waste storage areas, as soon as possible. • Drain all fluids from components, such as engine blocks, which you may store for reuse or recycling. Keep these components under cover and on a drip pan. • Store new batteries securely to avoid breakage and acid spills during earthquakes. Shelving should be secured to the wall. • Store used batteries indoors and in plastic trays to contain potential leaks. Recycle old batteries.
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Spill Prevention and Control

Spills cause safety hazards for employees and can spread if not cleaned up immediately. The best spill control is prevention.

Spill prevention and Control Guidance	<ul style="list-style-type: none"> • Maintain and keep current, as required by other regulations, a spill response plan and ensure that employees are trained on the elements of the plan. • Contain and cover all solid and liquid wastes – especially during transfer • Purchase and maintain the proper absorbent materials for containment and cleanup of different spills, and make sure they are easily accessible anywhere in the shop. Saturated absorbents generally must be disposed of as hazardous waste. • “Spot clean” leaks and drips routinely to prevent runoff of spillage. Leaks are not cleaned up until the absorbent is picked up and disposed of properly. • Minimize the distance between waste collection points and storage areas.
Outdoor Waste Receptacle Area	<ul style="list-style-type: none"> • Minimize the possibility of stormwater pollution from outside waste receptacles by doing at least one of the following: <ol style="list-style-type: none"> 1. Use only watertight waste receptacle(s) and keep the lid(s) closed, or 2. Grade and pave the waste receptacle area to prevent run-on of stormwater, or 3. Install a roof over the waste receptacle area, or 4. Install a low containment berm around the waste receptacle area, or 5. Use and maintain drip pans under waste receptacles.
Air/Water Supply Area	<ul style="list-style-type: none"> • Minimize the possibility of stormwater pollution from air/water supply areas by doing at least one of the following:



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	<ol style="list-style-type: none">1. Spot clean leaks and drips routinely to prevent runoff of spillage, or2. Grade and pave the air/water supply area to prevent run-on of stormwater, or3. Install a roof over the air/water supply area, or4. Install a low containment berm around the air/water supply area.
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Education and Training

Your success in following these guidelines depends on an effective training program.

- Train all employees upon hiring – and annually thereafter – on personal safety, chemical management, and proper methods for handling and disposing of waste. Make sure that all employees understand stormwater discharge prohibitions, wastewater discharge requirements, and these best management practices. Use a training log or similar method to document training.
- Post instructional/informational signs around your shop for customers and employees. Put signs above all sinks prohibiting discharges of vehicle fluids and wastes. Put signs on faucets (hose bibs) reminding employees and customers to conserve water and not to use water to clean up spills.
- Label drains within the facility boundary, by paint/stencil (or equivalent), to indicate whether they flow to an oil/water separator, directly to the sewer, or to a storm drain. Labels are not necessary for plumbing fixtures directly connected to the sanitary sewer.