Vehicle and Equipment Repair
Pollution Prevention Procedure

Targeted Constituents	
Sediment	
Nutrients	
Trash	
Metals	☑
Bacteria	
Oil and Grease	☑
Organics	☑
Oxygen Demanding	

Description

Vehicle or equipment maintenance and repair is potentially a significant source of storm water pollution, due to the use of materials and wastes created that are harmful to humans and the environment. Engine repair and service (e.g. parts cleaning), replacement of fluids (e.g. oil change), and outdoor equipment storage and parking (dripping engines) can impact water quality if storm water runoff from areas with these activities occurring on them becomes polluted by a variety of contaminants. Implementation of the following activities will prevent or reduce the discharge of pollutants to storm water from vehicle and equipment maintenance and repair activities.

Suggested Protocols

General

- ❑ Move maintenance and repair activities indoors whenever feasible.
- ❑ Store idle equipment (trucks, sweepers) containing fluids under cover to the maximum extent possible.
- ❑ Use a vehicle maintenance area designed to prevent storm water pollution

- ❑ Avoid hosing down your work areas. If work areas are washed, collect and direct wash water to sanitary sewer.

- ❑ Post signs at sinks to remind employees, not to pour hazardous wastes down drains.

- ❑ Clean yard storm drain inlets(s) regularly.

- ❑ Do not pour materials down drains or hose down work areas; use dry sweeping.

- ❑ Vehicles should be parked on paved surfaces.

Material and Waste Handling

- ❑ Store materials and wastes under cover whenever possible.

- ❑ Designate a special area to drain and replace motor oil, coolant, and other fluids. This area should not have any connections to the storm drain or the sanitary sewer and should allow for easy clean up of drips and spills.

- ❑ Drain all fluids from wrecked vehicles immediately. Ensure that the drain pan or drip pan is large enough to contain drained fluids (e.g. larger pans are needed to contain antifreeze, which may gush from some vehicles).

- ❑ Do not pour liquid waste to floor drains, sinks, outdoor storm drain inlets, or other storm drains or sewer connections.

- ❑ Do not sweep solid waste into the drain.

- ❑ Do not dispose of used or leftover cleaning solutions, solvents, and automotive fluids and oil in the sanitary sewer.

- ❑ Dispose of all waste materials according to applicable laws and regulations.

- ❑ Collect leaking or dripping fluids in drip pans or containers. Fluids are easier to recycle if kept separate.

- ❑ Promptly transfer used fluids to the proper waste or recycling drums and store in an appropriately designed area that can contain spills. Don't leave drip pans or other open containers lying around.

- ❑ Do not dispose of oil filters in trash cans or dumpsters, which may leak oil and contaminate storm water. Place the oil filter in a funnel over a waste oil recycling drum to drain excess oil before disposal. Oil filters can also be recycled.

- ❑ Do not allow materials leaking from batteries in to drains.

Maintenance and Repair Activities

- ❑ Provide a designated area for vehicle maintenance.

- ❑ Keep equipment clean, don't allow excessive build-up of oil and grease.

- ❑ If temporary work is being conducted outside: Use a tarp, ground cloth, or drip pans beneath the vehicle or equipment to capture all spills and drips. The collected drips and spills must be disposed, reused, or recycled properly.

- ❑ If possible, perform all vehicle fluid removal or changing inside or under cover to prevent the run-on of storm water and the runoff of spills:

    - ➢ Keep a drip pan under the vehicle while you unclip hoses, unscrew filters, or remove other parts. Use a drip pan under any vehicle that might leak while you work on it to keep splatters or drips off the shop floor.

    - ➢ Promptly transfer used fluids to the proper waste or recycling drums. Don't leave drip pans or other open containers lying around.

    - ➢ Keep drip pans or containers under vehicles or equipment that might drip during repairs.

    - ➢ Do not change motor oil or perform equipment maintenance outside of garage area.

- ❑ If equipment (e.g., radiators, axles) is to be stored outdoors, oil and other fluids should be drained first. This is also applicable to vehicles being stored and not used on a regular basis.

- ❑ Monitor parked vehicles closely for leaks and place pans under any leaks to collect the fluids for proper disposal or recycling.

Parts Cleaning

- ❑ Clean vehicle parts without using liquid cleaners wherever possible to reduce waste.

- ❑ Do all liquid cleaning at a centralized station so the solvents and residues stay in one area. Discharge wastewater generated from steam cleaning and pressure washing to an appropriate treatment control that is connected to a blind sump. Non-caustic detergents should be used instead of caustic cleaning agents, detergent-based or water-based cleaning systems in place of organic solvent degreasers, and non-chlorinated solvent in place of chlorinated organic solvents for parts cleaning.

- ❑ Locate drip pans, drain boards, and drying racks to direct drips back into a solvent sink or fluid holding tank for reuse.

Inspection

- ❑ Regularly inspect vehicles and equipment for leaks, and repair immediately.

- ❑ Make sure incoming vehicles are checked for leaking oil and fluids. Apply controls accordingly.

Spill Response and Prevention

- ❑ Place adequate stockpiles of spill cleanup materials where they are readily accessible.

- ❑ Clean leaks, drips, and other spills with as little water as possible. Use rags for small spills, a damp mop for general cleanup, and dry absorbent material for larger spills. Use the following three-step method for cleaning floors:

    - ➢ Clean spills with rags or other absorbent materials

    - ➢ Sweep floor using dry absorbent material

- Mop the floor. Mop water may be discharged to the sanitary sewer via a toilet or sink.

- ❑ Remove absorbent materials used for cleaning small spills promptly

- ❑ Do not saturate rags or absorbent material to eliminate need for disposal of spilled material as hazardous waste.

- ❑ Spills should be reported to the Board of Health immediately

Maintenance

- ❑ Sweep the maintenance area weekly, if it is paved, to collect loose particles, and wipe up spills with rags and other absorbent material immediately, do not hose down the area to a storm drain.

Safer Alternatives

- ❑ If possible, eliminate or reduce the amount of hazardous materials and waste by substituting non-hazardous or less hazardous material:

- ❑ Use non-caustic detergents instead of caustic cleaning for parts cleaning.

- ❑ Use detergent-based or water-based cleaning systems in place of organic solvent degreasers.

- ❑ Wash water may require treatment before it can be discharged to the sewer.

- ❑ Choose cleaning agents that can be recycled.

Training

- ❑ Train employees and contractors in the proper handling and disposal of engine fluids and waste materials.

- ❑ Ensure that employees are familiar with the site's spill control plan and/or proper spill cleanup procedures (You can use reusable cloth rags to clean up small drips and spills instead of disposables; these can be washed by a permitted industrial laundry. Do not clean them at home or at a coin-operated laundry business). The employee should have the tools and knowledge to immediately begin cleaning up a spill if one should occur.