

MAP CODE  
PPREV

# Pollution Prevention

**USE** Emergency Spills  
Stormwater  
Waste  
Site Environmental

**What** ➤ Any structure, practice or method used to manage potential pollutants that are used or stored at an aggregate operation.

**Purpose** ➤ To prevent or minimize contamination of stormwater and groundwater by protecting and containing chemicals and petroleum products.



**Where** **YES:** Wherever potential pollutants are handled or stored, such as at refuelling depots, maintenance sheds and shops.  
**NO :** Covered containment is not necessary for benign materials storage (i.e., materials that are not considered pollutants).

**Materials, Equipment & Costs** ➤ Concrete or other impervious floor, a suitable structure of lumber, plywood, roofing tiles or galvanized metal, metal shipping containers, tarpaper, concrete, polyvinyl, tanks, drums, barrels, lube cubes, absorbants (such as polypropylene, sawdust, paper, corn cob, zeolites, vermiculite or clay granules), goggles, nitrile gloves, disposal bags.  
✂ Drum dolly, spill kits, labour and hand tools.  
\$ Low to moderate.

**Plans & Specs** Covered Containment

- Covered containment is any permanent or portable shed/structure which protects the potential pollutants from rain, and prevents spills from percolating into the ground.
- The size, type and duration of containment will depend on the amount of material in storage, and handling requirements (drums, etc.).
- For a permanent structure, a berm or footing should be constructed around the perimeter of the storage area. It can be a simple concrete foundation where the structure is walled, or an impermeable berm in the case of an open or carport type of containment area.
- Large steel shipping containers are often used as portable self contained lockable covered containment sheds. These containers can be relocated around the aggregate site as operations shift from one area to another.

### Impervious Containment

- Impervious containment is meant to prevent spilled fluids from seeping into the soil or flowing into surface water courses.
- These berms and impervious surfaces should be located in areas such as fueling stations, where minor spills happen frequently.
- Ensure that the berm is large enough to contain all of the storage containers and material transfer activities (such as fueling), plus ten percent.

### Drum Handling

- Any flammable or combustible liquid should only be stored in containers specifically designed for them.
- Drums should be moved by drum dolly, and not rolled.
- Containers of 23 litres or less should be stored in an equipment box whenever being moved by vehicle.

### Spill Kit

- A spill kit should contain all of the equipment and supplies necessary to clean up spills of fuels or other contaminants before they spread or cause further damage.
- Locate emergency spill containment and cleanup kits in high potential spill areas. The contents of the kit should be appropriate for the type and quantity of potential contaminants stored at the facility. Carry kits on mobile equipment, diesel power plants and trucks.
- Disposal of used kits and recovered spill material should be carried out according to manufacturer's instructions and Provincial regulations regarding contaminants.

## **Maintenance**

- Ensure the roof or tarp does not leak, that the floor is cleaned regularly and that any cracks are repaired promptly.
- Plastic containers designated to carry petroleum products should not be more than 5 years old.
- Waste oil and solvents are usually considered to be special waste, and should be stored in a secondary containment. For disposal options for these materials, contact a regional [Ministry of Water, Land and Air Protection](#) office.

## **Sources**

Aggregate Producers Association of Ontario. (1999): **Environmental Management Guide for Ontario Pits and Quarries**, Version 2.0.

British Columbia Ministry of Environment, Lands and Parks and British Columbia Ministry of Forests. (1995): **Summary of Environmental Standards & Guidelines for Fuel Handling, Transportation and Storage**; Pollution Prevention and Remediation, Second Edition.

Ciuba, S. (2001): **Source Control BMPs**; Stormwater Management Manual for Western Washington, Volume IV. *Washington State Department of Ecology*, Publication 9914, URL <<http://www.ecy.wa.gov/biblio/9914.html>>, June 2001.

Johnson, K. Editor (1999d): **Spill Plan**; in Sand & Gravel General Permit. *Washington State Department of Ecology*, Water Quality Program, URL <<http://www.ecy.wa.gov/programs/wq/sand/spillpln.html>>, June 2001.