



**Canadian  
Petroleum  
Products  
Institute**

**Institut  
canadien  
des produits  
pétroliers**

## **Best Management Practices**

# **Stormwater Runoff from Petroleum Facilities**

**Prepared by the Canadian Petroleum Products Institute  
(CPPI)**

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# 1.0 Introduction

This Best Management Practices (BMP) document is intended to assist operators of CPPI member company identified petroleum facilities to minimize the effect of their operations on the quality of stormwater runoff from their sites. The facilities covered by this document include retail fuel facilities (service stations and gas bars); commercial fuel facilities (cardlocks, keylocks and truck stops); bulk fuel plants and agencies; aviation fuel storage facilities and refined products terminals.

The Best Management Practice (BMP) is a document that, when adopted by a municipality into its by-law, provides an alternate and efficient sewer discharge management tool. Should there be any discrepancy between the BMP and applicable Federal and Provincial Acts and Regulations and/or Municipal By-laws, the Acts, Regulations and/or By-laws take precedence.

Volumes and flow rates of fuel handled by these different types of facilities vary, as does the spill control and pollution prevention equipment that is in place.

## 1.1 Why is Stormwater Runoff from Petroleum Facilities a Concern?

At most petroleum facilities, stormwater is collected and discharged to municipal storm sewers which then discharge to a local creek, river or other waterway. At some facilities, there may be no connection to a sewer and therefore, stormwater flows directly to a ditch, to some other drainage structure or to a street. There are also some facilities where stormwater is discharged to municipal sanitary sewers and sewage treatment plants.

It is important that spilled fuel or other contaminants such as oil and glycol from leaking engine parts are prevented from entering the sewer system and then subsequently into the environment.

# 2.0 Summary of Regulatory Requirements

## 2.1 Federal Government

Improper connections to storm sewers, or runoff that could introduce toxic substances to local watercourses, may be a violation of the *Federal Fisheries Act*. Only uncontaminated stormwater runoff should be allowed to enter a stormwater collection system.

## 2.2 Provincial Government

Provincial regulations require the reporting of spills in certain circumstances. The regulations detail the circumstances under which spills should be reported, as well as, identifying the reportable substances and the minimum spill quantities that should be reported. It is important that facility staff understand when and to whom spills should be reported. Up-to-date spill reporting contacts should be in the facility's readily accessible Emergency Response Plan (ERP). Provincial Fire Codes or Fuel Handling Codes specify storage, handling and identification requirements for petroleum products. They also contain requirements for spill prevention, containment and clean-up.

Some provinces require that permits or approvals be obtained prior to installing equipment such as oil/water separators that discharge to storm sewers or directly to the environment.

Provincial Occupational Health and Safety Acts or Regulations contain requirements for Workplace Hazardous Materials Information System (WHMIS) training including chemical labelling, storage and record keeping.

Provincial Waste Regulations mandate specific waste disposal and record keeping requirements for certain types of wastes. In the context of this BMP, these requirements may apply to petroleum products recovered during spill recovery or oil/water separator maintenance; to sludge removed from oil/water separators and to used absorbent materials.

### **2.3 Regional and Municipal Governments – Sewer Use By-laws**

Municipal or regional governments have the authority to regulate discharges to sanitary and storm sewers within their boundaries. The primary intention of these by-laws is to protect:

- the aquatic receiving environment
- public health and safety
- sewage works
- wastewater treatment processes; and
- biosolids quality

and to:

- promote responsible waste management practices and pollution prevention (P2).

In some municipalities, by-laws require that companies obtain a waste discharge permit to discharge wastewater into municipal sewers, or to file a report with the municipality describing its facilities.

## **3.0 Best Management Practices**

Best Management Practices (BMP) are activities developed to assist operators to reduce the amount of contaminants discharged to the environment; to comply with regulations and to improve overall waste management practices. BMPs are based on the pollution prevention (P2) principle that emphasizes reducing or eliminating pollutants and toxic material at the source rather than removing or treating them later from a mixed waste stream. Preference is given to those practices that are highest in the P2 hierarchy as specified below in decreasing order of priority:

- avoidance, elimination or substitution of polluting products or materials
- reduction in the use of polluting products or materials
- elimination and reduction of the generation of polluting by-products
- re-use and recycling of polluting by-products
- energy recovery from polluting by-products
- treatment or containment of polluting residual by-products
- remediation of contaminated sites

### **3.1 Spill Response**

All facilities should have an up-to-date and tested spill response plan and all employees should know the location of spill response material and equipment and be trained in its use. The following are minimum requirements:

- The operator should immediately notify authorities and clean up spills. Be aware of, and prevent any fire or safety risks that may be caused by the spilled material.
- Use sorbents to immediately contain and absorb as much of the spilled product as possible, and to prevent spilled material from entering the stormwater collection system.

- An up-to-date and tested Emergency Response Plan (ERP) should be posted in a location known to, and readily accessible by employees, including a list of names and telephone numbers of persons that should be contacted and under what situations. (Do not post the ERP where it is visible to the public because of confidential contact information that might be contained in the Plan).
- A sufficient amount of clean up equipment and supplies should be kept in stock at all times, appropriate for the size and type of facility.

Keep records of date and time of spill, authorities contacted and staff spoken to, steps taken in spill clean up and recovery. In some cases, a written report will need to be submitted to a government body detailing the events. Having all the facts readily available will be helpful in this event.

### **3.1.1 Spill Response – Facility with an Oil/Water Separator**

For a site that has an oil/water separator, all requirements described in 3.1 above should be met.

The separator will be able to retain a certain volume of hydrocarbon when there is little or no water flowing through the system. This capacity will be reduced when the flow of water is high, such as during a storm. Some separators have hydrocarbon retention capacities of 1000's of litres. In the case of a large spill, when this retention capacity may be exceeded, the emergency shut-off valve on the discharge piping should be closed to ensure that oil does not escape into the storm sewer.

### **3.2 Operator and Operator's Employee Education**

- Ensure employees are trained whenever new equipment or procedures are implemented. They should be familiar with the hazards that accompany the material they are using and be aware of potential sources of contamination.
- Ensure all employees are aware of the emergency response plan and properly trained to carry it out so that they can respond in an emergency.
- Employees should be familiar with the site layout and drainage. They should also understand the functioning of the components of the stormwater drainage system and to where they discharge.

Records showing date, the training received and employee's acknowledgement should be kept of all employee training.

## **4.0 Facility Stormwater Systems – Operations and Maintenance**

Various types of sites covered by this document have different facilities on site for stormwater management. The following sections deal with operations and maintenance requirements at these sites.

Fuels are lighter than water and will float when not disturbed. At some petroleum sites, particularly those that transfer higher flow rates and volumes of fuels, this property is used to contain spilled fuel in oil/water separators and prevent it from contaminating nearby lakes and rivers.

#### 4.1 Surface Drainage Maintenance – All Facilities

Prevent pollutants from mixing with stormwater runoff by:

- Either wipe up spills with rags or clean up any spills with sorbents. Never hose down spills with water unless there is an oil/water separator to capture runoff.
- Never pour wastes into drains, onto the ground, or into an oil/water separator.
- Never clean paved areas with a hose and water unless there is an oil-water separator to capture runoff. Sweep with a broom instead.
- Pick up any litter on the lot and dispose of in trash to prevent the litter getting into the stormwater drains and potentially clogging them.
- Daily, inspect the lot for evidence of spills that may have happened while the site was unattended or during periods of poor visibility. If evidence of a recent spill is discovered, inspect the surrounding stormwater collection system to determine if petroleum product has migrated into the catch basins or the separator (if there is one). Report the spill to the proper authorities and clean up any spilled fuel. Refer to the facility's emergency response plan for spill reporting contacts.
- Most fueling areas have a concrete surface that is impervious to hydrocarbons and allows most spills to be contained. Repair and replacement of cracked or otherwise damaged paved areas is recommended if the damage could lead to product escaping to the environment.

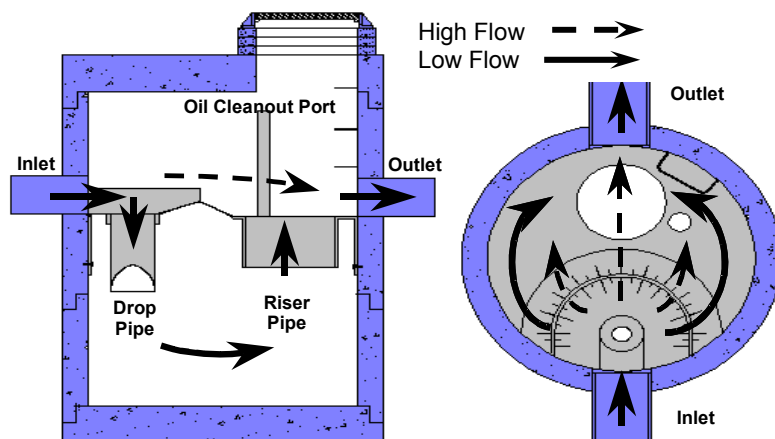
#### 4.2 Service Station/ Gas Bar – Simple Stormwater Collection System

At many service stations, stormwater simply runs off the lot into the municipal stormwater collection system on the adjacent street. At other sites, there is a collection system consisting of catch basins and manholes on the property which are then connected to the nearby municipal system.

In addition to the lot maintenance described in Section 4.1 above, any catch basins and manholes on the property should be inspected annually and accumulated sludge and debris removed if necessary. A clean out is typically done by a sewer maintenance company using a vacuum truck.

#### 4.3 Service Station or Other Facility – Collection System with Stormceptor® Unit

At some service stations and gas bars, as well as some cardlocks, keylocks and truck stops, there are Stormceptor® units in the system upstream of the discharge point to the municipal system.



During low flow, the Stormceptor® separates solids and oil that are entrained with the water entering at the inlet. Water and oil are retained in the chamber. During higher flow, some of the flow bypasses the lower chamber directly to the outlet to the municipal sewer. A diagram of a typical Stormceptor® is shown at left.

The following should be carried out in order for the system to perform as intended:

- Carry out lot maintenance activities as described in Section 4.1 and maintenance on stormwater collection system as described in Section 4.2 above.
- Oil that is collected in the Stormceptor® Unit should be removed immediately after a spill.
- Every twelve (12) months inspect depth of sediment and thickness of oil. If any oil is discovered, it should be removed immediately. Allowable sediment thickness depends on the size of the unit installed, 200 mm (8 inches) for the smaller units, and more for larger units.
- After three years, inspection frequency can be adjusted depending on the history of clean-outs that have been required. At a typical site, sediment removal is required once per year.

More information and allowable sediment thickness for the model at your site can be obtained from the owner's manual or the Stormceptor® website at [www.stormceptor.com](http://www.stormceptor.com).

#### **4.4 Bulk Plant, Card/Keylock, Truck Stop, Aviation Facility or Terminal with Oil/Water Separator**

Bulk plants, cardlocks, keylocks and truck stops typically have an oil/water separator that collects potentially contaminated runoff from pump islands in cardlocks, keylocks and truck stops and loading racks in bulk plants. Runoff from unloading facilities and dyked areas around above ground tanks is also collected in the oil/water separator. The separator is typically an above or below ground fibreglass or concrete tank equipped with baffles and arrangements of inlet and outlet piping designed to separate sediment and oil from water. (Note: if the separator is a Stormceptor®, procedures described above in Section 4.3 should be followed).

**Liquid wastes should never be poured into or disposed of in the separator, including any of the following: used oil, antifreeze, solvents, tank bottom water, truck wash water or other water containing detergents. These wastes should either be treated on-site by an appropriate and legal method or removed by a licensed waste hauler.**

##### **4.4.1 Oil/Water Separator – Normal Operation**

Most separators are equipped with a shut-off valve at the outlet which can be closed in the event of a spill to isolate the contents of the tank until a licensed hauler can attend at the site to pump out the spilled material for disposal.

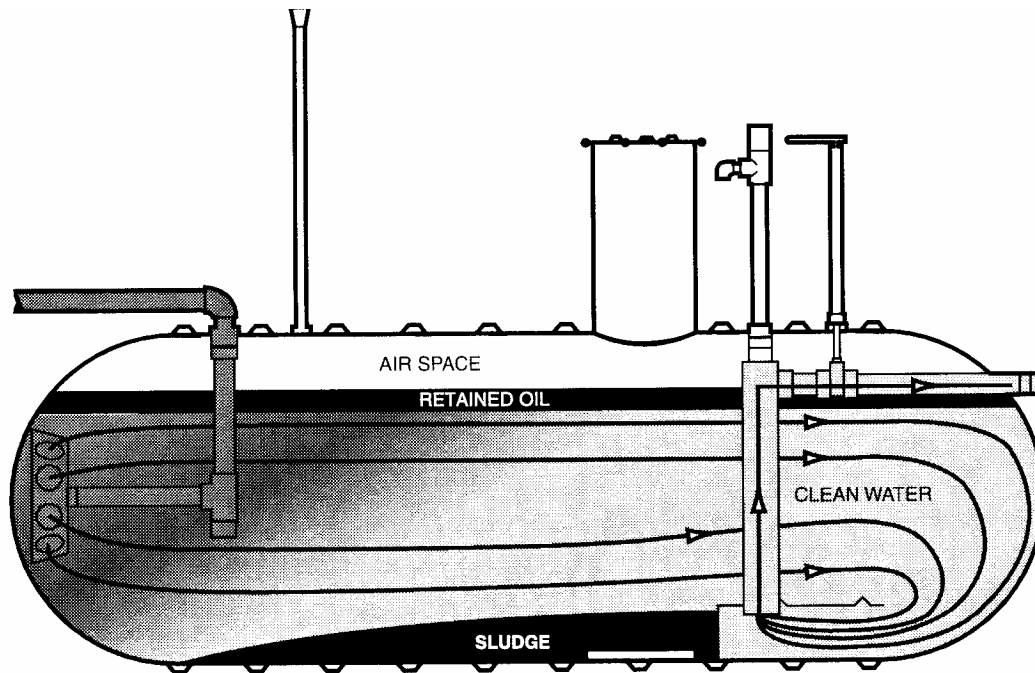
Some installations also have a valve on the inlet piping that is used to isolate the vessel for safety in the event that it needs to be entered into for maintenance purposes.

Both valves should normally be left open. They should be labelled with “open” and “closed” positions, or otherwise readily identifiable to help prevent them from being left in the wrong position. Another option is to post a schematic nearby that details valve operation. A typical gravity oil/water separator is illustrated below, showing the flow pattern through it.

At some sites, oil collecting in the separator is skimmed and routed to a separate tank for storage and subsequent disposal.

At sites with aboveground tanks, water that collects within the dyked area around the tanks is often discharged to the oil/water separator after the rainfall event has passed. During a rainfall, and when the transfer of water is not taking place, the dyked area should be isolated from the separator by keeping the shut-off valve closed.

Other catchbasins on the site, which collect stormwater from areas not at risk from fuel spills, will be routed directly to the sewer or ditch, without passing through the separator. Staff should be familiar with the system and know which catchbasins are connected to the separator.



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#### 4.4.2 Oil/Water Separator Inspection

In addition to carrying out lot maintenance activities as described in section 4.1 and maintenance on the stormwater collection system as described in Section 4.2, the following should be carried out on a monthly basis in order for the system to perform as intended:

- Inspect oil/water separator contents. Measure and record sludge depth and oil layer thickness on log sheet. Use a calibrated gauge stick to determine water level when the separator is new and filled with water, but before sludge has accumulated in the system. To measure sludge and oil layer thickness during subsequent monitoring, proceed as follows:
  - Apply a coating of water detection paste extending to 30 cm (12") below the expected top liquid level mark.
  - Insert the stick through the inspection port, keeping the stick vertical and slowly lower the stick into the separator.

**Caution:** Do not drop the stick into the separator to avoid misreading of sludge depth and/or causing damage to the bottom of the vessel.

- Continue to lower the stick until a slight resistance is encountered. This represents the top surface of the sludge layer. Note and record the reading at a convenient reference point (such as the top of the inspection port).
- The difference in the liquid depth determined and that when the separator was new, is the sludge thickness.

- Withdraw the gauge stick and observe the water detection paste. The distance between the point where the paste has changed colour (the oil/water interface) and the total wetted liquid level is the thickness of the oil layer. If the paste has not changed colour, repeat the measurement using a new coating of water detection paste, but extend the paste to 60-cm (24") below the expected top liquid level mark.

The manufacturer of packaged units, or designer of the system, may specify maximum sludge depth for the separator. If this information has not been specified, then sludge depth should not be greater than 15 cm (6 inches). Oil should not be allowed to accumulate in the separator. Have the oil removed if the measured depth is 5 cm<sup>1</sup> or more. Scum and floating debris should not be allowed to accumulate to a depth of more than 5 cm (2 inches).

If oil or sludge thickness exceeds the specified maximums, the separator should be cleaned out. If the entire separator contents are removed, it should be refilled with clean water, unless the internal baffles are designed such that spilled oil is not allowed to bypass into the outlet when the separator is empty. See section below which describes separator cleaning in more detail.

For sites that have an oil collection tank that collects skimmed oil from the separator, the depth of oil in the collection tank should be measured. The facility operator should determine, based on records, how quickly this tank fills up. Make arrangements to have the tank pumped out by a licensed contractor well before the tank is full, to prevent a malfunction of the system.

Twice per year (preferably in spring and fall) the following should be carried out:

- Operate the shut-off valve on the oil/water separator outlet, and the one on the inlet, if there is one, to ensure they operate. Both valves should normally be left open.

#### **4.4.3 Oil/Water Separator Sampling**

At some sites, there may be regulatory requirements that require effluent from the oil/water separator to be sampled and analyzed by a laboratory at a certain frequency. It is a site operator's responsibility to be in compliance with the regulatory requirements in his/her jurisdiction. The sampling location will depend on the system installed at the facility. It could be from a sampling port that is built into the separator and allows sampling of effluent that is leaving the vessel. Alternatively, it could be from a manhole that the separator discharges to or from the discharge of a pump (through a sampling connection) that pumps effluent to the discharge point. A sampling port could also be a simple tee or an opening for a pump sampling tube.

The laboratory normally supplies jars or bottles for collecting the samples. They may also supply instructions for handling or taking samples. Samples should be kept cool and shipped to the laboratory as soon as possible.

Laboratory results should be kept with other records and logs.

#### **4.4.4 Oil/Water Separator Cleaning**

The manufacturer of the separator or designer of the system usually defines maximum allowable sludge thickness. The separator needs to be cleaned out when the thickness of oil is 5 cm<sup>1</sup> or more and when the maximum allowable sludge thickness is reached to prevent deterioration in the performance of the separator. Record the date of separator cleaning and retain a copy of the waste manifest sheet.

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<sup>1</sup> As the design and capacity of oil water separators may vary, the manufacturer's maximum recommended levels may be used as alternative maximum floating oil and grease levels.

In most cases, only the oil layer will need to be removed, since the need for sludge removal is typically less frequent. Unless it is known or suspected that materials are soluble in water, such as solvents, antifreeze or detergents have contaminated the separator, it is not necessary to remove water from the separator during cleaning. Since cost normally depends on volume, removing only the oil layer will also save money.

Manufacturers may have special procedures that need to be followed for cleaning or start-up. You should have a copy of these. Coalescing separators or ones with other special internals have procedures for cleaning, including proper installation of the internals if they are to be removed for cleaning. Improper installation can result in the separator not being able to achieve the required separation.

Never enter the separator. Most separators are confined spaces, and require special procedures to be followed for entry, typically done by a trained contractor.

#### **4.4.5 Oil/Water Separator - Preparation for Winter Conditions**

In facilities with shallow separator installations or those that experience long and severe winters, water in the separator could be subject to freezing. If pumps are part of the system, they could also be subject to freezing and damage.

A frozen separator will not be able to function for its intended oil spill containment purpose. It would also thaw more slowly underground than snow at surface, resulting in a system that would not perform in the spring until the separator also thawed. Assuming that the design and installation of the system cannot be changed to avoid freezing, one of the following is necessary:

- Install a frost barrier to reduce frost penetration
- Install a heating device in the separator activated by temperature and with a thermostatic overheat control. This equipment needs to be explosion proof and appropriate for this application.
- Drain the separator to within 9" of the bottom of the vessel and shut off the outlet valve. The empty vessel will then be available to contain any spill that might occur during winter months. Prior to arrival of spring, inspect the separator to check for the presence of oil. Clean it out, if oil is present. Refill with water and open the outlet valve so that it is ready to receive stormwater runoff.
- If the system has a pump that could be subject to freezing, it should be drained as well.

## **5.0 Record Keeping and Retention**

Good records are very important to the facility to show that procedures have been followed. The following records should be kept on site or off-site in a secure location if on-site retention is not practical or possible for at least 2 years:

- Records of employee training, including dates, name of employee and employee's acknowledgement.
- Records of inspections, including date and measured thickness of oil and sludge layers in the separator.
- Records of clean-outs, including date, and copies of waste manifests or name of company handling the material removed for disposal or recycling.
- Details of spills, including date, time, volume spilled, who it was reported by, names of government officials spoken to, and what was done to clean up.

- Name of disposal or recycling company or facility handling the material removed from the oil-water separator
- Analytical results of any effluent sampling done.

Many sites keep all information related to the oil/water separator in one binder (records listed above, copy of regulatory permits or approvals, drawings of system, operating and maintenance requirements, information supplied by the manufacturer of the separator). This prevents having to search through files for various pieces of information when it is needed or requested.

Sample log sheets for sites with oil/water separators are included in the Appendix that follows. These may be changed to suit the facility or be substituted by another record keeping system.





# **Best Management Practices to Prevent Hazardous Waste from Entering a Stormwater Catch Basin**

The operator of a petroleum marketing facility has the responsibility to ensure compliance with all Federal, Provincial and Municipal Acts, Regulations and By-laws applicable to effluent discharges into sewer systems. To assist operators to minimize the risk of hazardous substances entering into sewer systems, Best Management Practices should be followed. **The Best Management Practice (BMP) is a document that, when adopted by a municipality into its by-law, provides an alternate and efficient sewer discharge management tool. Should there be any discrepancy between the BMP and applicable Federal and Provincial Acts and Regulations and/or Municipal By-laws, the Acts, Regulations and/or By-laws take precedence.**



## **Retail Facilities**

A spill of gasoline, diesel, solvent or lubricating oil that occurs on a pump island pad or facility parking area has the potential of entering a sewer system via a storm water catch basin. To reduce potential risk do the following:

- After ensuring there is no risk of fire or explosion follow the spill response instructions contained in your facility's Emergency Response Plan (ERP).
  - ◆ Immediately cover all catch basins using the rubber drain stops from the facility's spill response kit and use sand, soil and/or granular sorbent to dyke around the catch basin.
  - ◆ Use rags or the facility's spill response kit sorbents to pick up as much free product as possible.
  - ◆ Store the used sorbent in a properly identified container awaiting disposal.

While there is no way to control storm run-off, one can reduce the risk of substances getting into a sewer system by using rags and absorbents to clean up drips and spills. Pump islands and lot should always be swept, not washed down. Washing not only flushes potentially hazardous material into the sewer system it also flushes solid waste, dirt and gravel, paper, etc. that could plug the sewer and/or negatively impact a waste treatment facility.

To further reduce the risk of hazardous substances getting into the sewer, vehicles should never be serviced or washed anywhere on the facility site except in properly constructed service and wash areas.

If the facility has an oil/water separator or Stormceptor®, follow the manufacturer's recommended service and maintenance schedule. Carry out inspection and maintenance activities as follows:

- Oil that is collected in the Stormceptor® Unit after a spill should be removed immediately.
- At least once every twelve (12) months measure the depth of sediment and look for the presence of surface oil. If oil is present, it should be removed immediately. Allowable sediment thickness depends on the size of the unit installed; 200 mm (8 inches) is acceptable for the smaller units.
- After three years, the inspection frequency can be adjusted depending on the history of clean-outs. At a typical site, sediment removal is required once per year.



Additional information on allowable sediment thickness can be obtained from the facility's owner's manual or at [www.stormceptor.com](http://www.stormceptor.com).

Use only provincially approved and licensed waste collectors to clean out the separator or Stormceptor®.

Never pour waste liquids of any type into a storm drain.

## Record Keeping and Retention

Retain all records for a minimum of two (2) years in a location that can have them available for inspection.



The records should contain:

- Employee name and training dates.
- Inspection dates plus the measured thickness of oil and sludge.
- Clean-out dates and copies of waste manifests showing name of waste removal company.
- Spill details including date, time, spill volume, to who was it reported and by whom, clean up information.
- Analytical results of any effluent sampling.



# **Best Management Practices (BMP) to Prevent Hazardous Waste from Entering a Stormwater Catch Basin at Bulk Plants, Card/Key Locks, Terminals, Truck Stops and/or Aviation Facilities that have an Oil/Water Separator**

The operator of a petroleum marketing facility has the responsibility to ensure compliance with all Federal, Provincial and Municipal Acts, Regulations and By-laws applicable to effluent discharges into sewer systems. To assist operators to minimize the risk of hazardous substances entering into sewer systems, Best Management Practices should be followed. **The Best Management Practice (BMP) is a document that, when adopted by a municipality into its by-law, provides an alternate and efficient sewer discharge management tool. Should there be any discrepancy between the BMP and applicable Federal and Provincial Acts and Regulations and/or Municipal By-laws, the Acts, Regulations and/or By-laws take precedence.**

Most oil/water separators have a shut-off valve that can be closed in the event of a product spill. Closing the valve isolates the separator's contents until a provincially approved and licensed waste collector can clean it out. Some separators also have a valve on the inlet pipe that isolates the chambers for maintenance purposes.

Both valves should normally be left open and should be readily identified with "Open" and "Closed" positions. An option to valve identification is a schematic posted nearby that details valve operation.

Liquid wastes should never be poured into or disposed of into the separator and that includes any of the following: used oil, antifreeze, solvents, tank bottom water, truck wash water or other water containing detergents. These wastes should either be treated on-site by a provincially approved method or removed by a provincially licensed waste collector.



## **Inspection and Maintenance**

Inspect oil/water separator contents. Measure and record sludge depth and oil layer thickness. Use a calibrated gauge stick to determine water level when the separator is new and filled with water, but before sludge has accumulated in the system. To measure sludge and oil layer thickness during subsequent monitoring, proceed as follows:

- Apply a coating of water detection paste extending to 30 cm (12") below the expected top liquid level mark.
- Insert the stick through the inspection port, keeping the stick vertical and slowly lower the stick into the separator.

**Caution:** Do not drop the stick into the separator as to do so could cause a misreading of sludge depth and/or cause damage to the bottom of the vessel.

- Lower the stick until a slight resistance is encountered. This represents the top surface of the sludge layer. Note and record the reading at a convenient reference point (such as the top of the inspection port).
- The difference in the liquid depth measured now and that when the separator was new, is the sludge thickness.
- Withdraw the gauge stick and observe the water detection paste. The distance between the point where the paste has changed colour (the oil/water interface) and the total wetted liquid level is the thickness of the oil layer. If the paste has not changed colour, repeat the measurement using a

new coating of water detection paste, but extend the paste to 60 cm (24") below the expected top liquid level mark.

The manufacturer or designer of the system may specify maximum sludge depth. If not specified, sludge depth should not exceed 15 cm (6 inches). Oil should not exceed 5 cm<sup>1</sup>. Scum and floating debris should not be allowed to accumulate to a depth of more than 5 cm (2 inches).

If the oil or sludge thickness exceeds the specified maximums, the separator should be cleaned. After all contents are removed, the separator should be refilled with clean water, unless the internal baffles are designed such that spilled oil is not allowed to bypass into the outlet when the separator is empty.

For sites that have an oil collection tank that collects skimmed oil from the separator, the depth of oil in the collection tank should be measured. The facility operator should determine, based on records, how quickly this tank fills up. To prevent a system malfunction, have the tank pumped out by a licensed contractor well before the tank is full.

Twice per year (preferably in spring and fall) check the separator's shut-off valves at the outlet and at the inlet, to ensure they operate.

### Winter Operation of the Oil/Water Separator

Outdoor separators are subject to freezing and may not therefore, serve their purpose as an oil spill containment system. Abide by the manufacturer's recommendations for winter operation.



### Record Keeping and Retention

Retain all records for a minimum of two (2) years in a location that can have them available for inspection.

The records should contain:

- Employee name and training dates.
- Inspection dates plus the measured thickness of oil and sludge.
- Clean-out dates and copies of waste manifests showing name of waste removal company.
- Spill details including date, time, spill volume, to who was it reported and by whom, clean up information.
- Analytical results of any effluent sampling.



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<sup>1</sup> As the design and capacity of oil water separators may vary, the manufacturer's maximum recommended levels may be used as alternative maximum floating oil and grease levels.