

Maintenance of Sumps, Oil/Water Separators, Interceptors

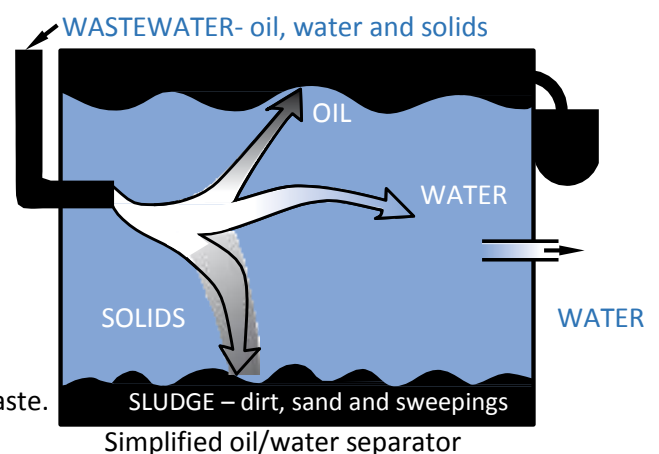
Keeping our environment safe requires a cooperative effort between industry and government when it comes to disposing contaminated wastewater. A key part of this cooperation involves the control of potentially harmful substances before they reach the sewer system. While a single facility may contribute only small quantities of these substances, however **all facilities collectively are significant contributors**. It is therefore critical that every facility does what is necessary to reduce substances of concern prior to discharge into the sanitary sewer system.

Pre-treatment devices such as industrial sumps and other oil/water separators can be costly to maintain if they are not properly managed. When not properly maintained, wastewater discharges from sumps/separators can contribute to the pollution of surface and ground water and can lead to violations, costly wastewater charges and even result in fines.

Sumps are designed to keep excess solids, oils, and other pollutants out of the sewer system. Therefore, it is **imperative that regular maintenance on sumps is performed to ensure they operate efficiently and effectively**.

<u>Sump Waste</u>	<u>Source</u>	<u>Why is it a Concern?</u>
Hydrocarbons	Fuels, oils, grease, solvents	<ul style="list-style-type: none"> - May exceed Municipal Bylaw limits for Total Petroleum Hydrocarbons - May cause levels of benzene, toluene, ethylbenzene & xylene (BTEX) to exceed provincial hazardous limits - Can cause health issues for workers due to toxicity - Spills entering sewer system can cause fire or explosion hazards
Phosphorus	Detergents, metal finishers	<ul style="list-style-type: none"> - May exceed Municipal Bylaw & provincial hazardous limits for phosphorus - May cause waste to be either too high or too low in pH - Can affect operations at wastewater treatment facilities
Metals	Rust, used oil & antifreeze, processes in the metal industry	<ul style="list-style-type: none"> - May exceed Municipal Bylaw & provincial hazardous limits for particular metals - Can affect operations at wastewater treatment facilities
Solids	Dirt, sand, rust, paint chips, process solids	<ul style="list-style-type: none"> - Has the potential to clog sewer lines when in excess amounts - May cause damage to wastewater collection and treatment equipment, leading to costly repairs/maintenance

Owners/Operators of industrial sumps have an obligation to know the nature and characteristics of their wastes, in order to ensure appropriate disposal. The variety of wastes received, types of equipment serviced, products used, and operational practices are important factors to consider in order to properly characterize, classify and manage these wastes. Owners/Operators are responsible for wastes generated at their facilities and must determine if these wastes are hazardous. If deemed hazardous, wastes must be disposed of at a facility that is licensed and approved to accept and handle hazardous waste.



These facts outline what you can do to ensure your sump system works properly:

- **INSPECT.** The sump should be inspected regularly and the depth of the bottom sludge and floating oils should be measured.
- **DO NOT ACCUMULATE.** As the levels of solids and oils accumulate, the efficiency of the sump decreases. Solids in the sump should not exceed **25%** of the wetted height of the final stage where the effluent flows to the sewer. Likewise, floating oil and grease should not exceed **5%** of the wetted height of the final stage. It is imperative that both the oil and solids layers not be allowed to reach the open end of the effluent pipe.
- **HAZARDS.** Due to the volatile nature of some oils, solvents and fuels, these materials should not be left to accumulate in a sump as they can cause health and safety concerns.
- **CLEAN.** A sump should be cleaned out as soon as possible if during the inspection the measured amounts exceed the criteria noted above.
- **DO NOT FLUSH.** Hot water, detergents, solvents or any other chemical agents should not be used to flush oil out of the oil/water separator.
- **SPILLS.** Have a spill response plan on site. Clean up spills immediately with rags/pads/absorbol and dispose of according to applicable provincial regulations. If any spill of 2L or more happens to enter a sump, have the sump cleaned out before resuming discharging wastewater from it.
- **DISPOSE PROPERLY.** When the sump is cleaned, the oil and grease and bottom solids should not be disposed of into any sewer connected to a sewage treatment facility or at any location where it may be introduced to a storm sewer or a watercourse. The clean-out should be done by a provincially licensed and approved waste collector.

Record Keeping

Although the responsibility for proper sump waste management lies with the owner/operator of the sump, waste service companies who transport or accept the waste share this responsibility. To document proper management and due diligence, we recommend that the sump owner/operator keep records of the following information for a minimum of two years:

- Dates of maintenance/cleaning of the sump;
- Estimated quantity of sump waste removed during cleaning;
- Name of company performing the maintenance/cleaning;
- Name, address, and location including legal land description of the facility receiving the waste.

Alberta Capital Region Wastewater Commission

The Commission provides safe, reliable, cost-efficient and environmentally responsible wastewater transmission and treatment services for 13 municipalities in the Alberta Capital Region. The ACRWC is committed to sustaining the quality of life of the Region while supporting the growth and development of our member municipalities.

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