OIL WATER SEPARATORS

Oil collected from an oil water separator (OWS) can be recycled. See the Other Used Oil Generator Requirements guidance for oil management requirements.

An OWS is often required by local waste water treatment plants under the Industrial Pretreatment Program (IPP) or as a structural control under the DEQ Storm Water Program. See the storm water training materials and discuss requirements with the Water Bureau storm water staff. Also see the Water Bureau’s Best Management Practices (BMPs) for Oil/Grit Separators and other related BMPs.

If connected to a public sewer system, contact the municipal wastewater treatment plant and the OWS manufacturer/distributor for information regarding requirements for installing and maintaining oil water separators. The requirements will depend on the type of waste water treatment plant connection. If the facility is not connected to a municipal wastewater treatment plant, contact the Water Bureau District Office for questions about OWS requirements under their regulations. Michigan does not have state design standards for constructing oil water separators. Also discuss installation requirements with the local building inspector.

EPA has a list of OWS manufacturers and suppliers or search the Internet for commercial OWS manufacturers or service providers.

See the EPA Region 9 publication on “Oil/Water Separators” which contains more information than the following basic tips:

✓ Don’t rely on the OWS to handle wash water from fuel, coolant, solvent, oil, or paint spills. Instead, clean up spills when and where they occur with dry methods.

✓ The best way to reduce OWS sludge is to keep solids out of wash water. It will be necessary to characterize any sludge or oil water mixtures removed from the OWS to determine if it is hazardous waste, used oil, or liquid industrial waste.

✓ Install progressively finer grates and screens over the drains to the OWS inlet in order to maximize solids separation:
  ▪ Begin with steel bars spaced 3/4 to 1-inch apart at the OWS drain inlet
  ▪ Add sequentially finer grates and screens (3/4 and 1/4-inch screens or 1/4-inch expanded steel mesh)
  ▪ Finish with reusable absorbent material to remove very small particles.

✓ Use microbes to digest oil in your OWS. Bioremediation is typically performed under a vendor service contract.

✓ Use oil-only absorbents to separate and recycle oil from your OWS. In some older OWS units, it is not easy to collect and remove separated oil. If your OWS does not have an oil trough or other oil collection device, you can use reusable absorbent pads that absorb only oil and grease. Put these pads on the water surface to collect floating oil.

Once saturated, the oil can be squeezed from the pads and managed with your used oil if the squeezed oil is not contaminated with hazardous waste (get data on your wash water quality or analyze a sample at least once to verify). The squeezed absorbent pads can be reused. Some companies offer services where used sorbents are returned to them for oil recovery and then the sorbents are able to be reused. To find recyclers, search the Internet or look for recyclers listed in the Oils and Solvents category in the Recycled Materials Market Directory by using the term “sorbent”.

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EPA has a list of manufacturers and suppliers of sorbents containing recycled materials at www.epa.gov/cpg/products/sorbents.htm.

When the pads reach the point where they can’t be reused and the oil has been squeezed out and there are no free liquids present, determine if they are hazardous waste. If the spent sorbents are not hazardous and do not contain free liquids, check if the landfill operator will accept them for disposal. If they are hazardous waste, the disposal options will depend on the facility’s hazardous waste generator status. See other guidance for hazardous waste generators.