TC1

OIL WATER SEPARATORS

DESCRIPTION:

Oil/water separators are baffled chambers designed to remove petroleum compounds and greases from stormwater. Oil/water separators also remove floatable debris and settleable solids (sediment).

TARGETED ACTIVITIES:

Aircraft Maintenace, Aircraft Fueling, Aircraft Painting/Stripping, Aircraft Washing, Vehicle Maintenance, Vehicle Fueling, Vehicle Washing, Cargo Handling, Fuel Storage, Chemical Storage, Equipment Cleaning/Degreasing, Equipment Maintenance, Equipment Fueling, Equipment Storage, Apron Washdown

APPROACH:

Oil/water separators are typically used in areas where the concentrations of petroleum hydrocarbons, floatables, or sediment may be abnormally high and source control techniques are not very effective. There are two types of oil/water separators: the American Petroleum Institute (API) separator and the coalescing plate separator (CPS). Design, sizing and placement of oil/water separators is dependent on several factors including: tributary area, type of activity, pollutant type and concentration, and water temperature.

Maintenance items include:

* Separators must be inspected and cleaned of accumulated oil, grease, and floating debris to be effective stormwater quality controls.
* Oil absorbent pads are to be replaced as needed but will always be replaced prior to the wet season.
* The effluent shutoff valve will be closed during cleaning operations.
* Any standing water removed during the cleaning operation must be disposed of in accordance to Federal, State and local requirements.
* Andy standing water removed during the cleaning opeation must be replaced with clean water to prevent oil carry-over through the outlet.

REQUIREMENTS

* Capital and O&M Costs:
  - Costs increase as the tributary area increase.

LIMITATIONS:

Oil/water separator installations should be designed and installed by experienced individuals. Little data on the characteristics of petroleum hydrocarbons in stormwater leads to considerable uncertainty about separator performance.