MAINTENANCE INSTRUCTIONS FOR AQUASWEEP™ OIL WATER SEPARATORS

Reduced performance and damage to the coalescer panels, secondary coalescer, and other components may occur if the unit is not properly maintained. A maintenance plan for AquaSweepTM gravity oil water separator should include:

- Periodic inspection to check for and remove the oil, sludge, sand, and other sediments in the tanks' compartments.
- Periodic inspection and replacement of coalescing media.
- Check for free oil in the effluent after heavy rainfalls to verify effective separator and alarm operation.
- Periodic monitoring of the effluent for free oil. Check for oil in the effluent.

Care must be taken when entering the AquaSweep[™] Oil Water Separator. Surfaces will be slippery and flammable and combustible vapors may be present. Follow all local codes and OSHA guidelines concerning entry into confined spaces.

Required maintenance procedures for each compartment includes but is not limited to, the following:

- 1.0 Upstream interceptor (if present): Frequently examine for and remove heavy debris common in storm water run-off. Remove any material, such as paper, vegetation, etc., that would obstruct the separator's inlet piping or impede the separator's performance.
- 2.0 Sediment Chamber: Periodically measure the sediment depth on the tank bottom with a wooden gauge stick. Pump out sludge when it is necessary. It may be required to remove the inlet pipe(s) and/or primary coalescer to be able to pump out the sediment chamber. The chamber should be inspected and cleaned once a year, or more often as needed, as follows:
 - 2.0.1 Shut off the inlet and outlet valves and pump out all fluid from the separator. Dispose the fluid in accordance with all Federal, State, and Local codes.
 - 2.0.2 Using a high pressure water spray or steam cleaner, wash down inner tank walls and pump out the slurry.
 - 2.0.3 Inspect the interior tank coating (if applicable) for damage and repair as necessary.
- 3.0 Primary Coalescer Containment: At least annually, in conjunction with servicing the sediment chamber, replace or clear the inlet pipes and coalescer plates or packs of oil/grease accumulations with a suction hose or portable oil pump and pressure spray or steam clean the plates and packs as necessary. Do not use soaps or detergents to clean the plates or packs since this will introduce emulsifiers to the unit. Clean the coalescer compartment as needed to prevent an accumulation of sediment that would impede oil water separation. Inspect the interior tank coating (if applicable) for damage and repair as necessary. Inspect components for damage and replace if necessary.
- 4.0 Secondary Coalescer Containment (Models 3 and 5, only): After heavy rainfall or whenever it is likely that inlet fluids will bring increased amounts of sediment into the separator or at least annually, replace or clean the secondary coalescer.
 - 4.0.1 Remove the secondary coaleseer from the tank through the access manway.
 - 4.0.2 Using water only, pressure spray or steam clean the secondary coalesce upstream of the oil water separator's inlet as necessary. Do not use soaps or detergents to clean the plates since this will introduce emulsifiers to the unit.
 - 4.0.3 Inspect the secondary coalescer for damage and replace if necessary.
 - 4.0.4 Re-install the clean or new elements into the secondary coalescer housing.

- 5.0 Auxiliary Equipment: Periodically, check any and all auxiliary equipment, such as level alarms, floats, pumps for damage and proper operation. Repair or replace damaged equipment prior to returning the oil water separator to service.
 - 5.0.1 After tank has been pumped out and refilled and the floats have been checked and serviced, ensure that there are no alarm conditions seen on the control panel and all controls have returned to the normal operating positions.
- After all of the servicing has been performed on the tank, completely fill the separator with clean water. The unit is now ready to be returned to service by following the "Start-up Instructions".
- 7.0 Aboveground separator requirements:

 The separator operator should perform periodic walk-around inspections to identify and repair areas of damage to the vessel or the coating itself and check for proper drainage around the separator area.
- 7.1 It is imperative that the separator exterior be inspected periodically to ensure that the integrity of the coating is maintained. The frequency of periodic repainting will be based upon environmental factors in the geographic area where the separator is located. Special consideration should be given to the selection of the paint, surface preparation and coating application. The coating selected should be suitable for use with the current coating, or the existing coating should be removed. The coating selected should be of industrial quality.
- 7.2 Proper site preparation and maintenance are vital to ensure drainage of surface water.

 Should ground conditions change or settlement occur, take the appropriate steps to maintain proper drainage and prevent standing water near or under the separator area.
 - 7.2.1 For diked separators, remove any product spills immediately. Be sure to dispose of hazardous material properly.
 - 7.2.2 For diked separators fitted with a drain, drain off water only. Drain openings are required to be maintained liquid tight.