Note: Installation of Containment Solutions, Inc. (CSI) Aboveground Oil/Water Separators (OWS) should be performed in accordance with all Federal, State, Local or Provincial regulations and governing codes. Petroleum Equipment Institute Publication PEI/RP200, "Recommended Practices for Installation of Aboveground Storage Systems for Motor Vehicle Fueling" may be used as an informational guideline for Aboveground Oil/Water Separator installations.

## 1. SAFETY

- 1.1. These instructions should not be interpreted in a way to put one's health at risk, or to harm property and/or the environment.
- 1.2. Keep this manual available at the installations site and refer to safety procedures as needed.
- 1.3. The following definitions will serve as a guide when reading this manual.

# **AWARNING**

Indicates a potentially hazardous situation, which if not avoided could result in death or serious injury.

# **ACAUTION**

Indicates a potentially hazardous situation, which if not avoided may result in minor or moderate injury.

# NOTICE

Indicates a potentially hazardous situation, which if not avoided may result in property damage.

### 2. FOUNDATION PREPARATION/PLACEMENT

2.1. The foundation must be designed to support the OWS on well drained, stable concrete, asphalt or bedding material which prevents movement, rolling or uneven settling of the OWS, and is designed to minimize corrosion of the OWS bottom. The OWS should be installed in a level and plumb position with adequate support to prevent movement due to settlement or use.

# **ABOVEGROUND OWS INSTALLATION**

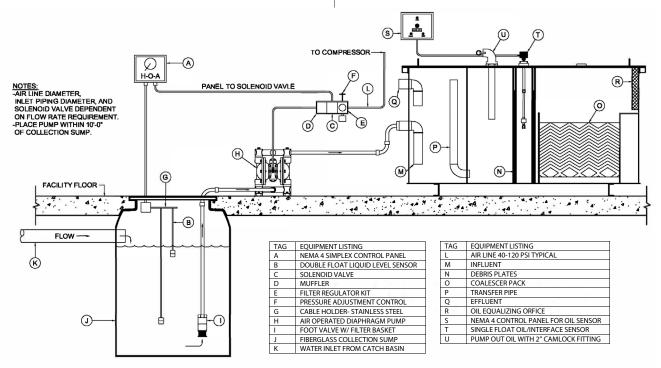
- 2.2. For OWS installations, a static electricity grounding system should be installed for the OWS in accordance with Electrical and Fire Codes Standards. Consult your local Electrical Code for details.
- 2.3. Consult National Fire Protection Association publication NFPA 30, Uniform Fire Code, local fire marshal, and building inspectors for all applicable codes and restrictions.

#### 3. HANDLING

- 3.1. Equipment for handling the OWS shall be of adequate size to lift and place the OWS without dragging and/or dropping.
  - 3.1.1. If required, the OWS may be carefully lifted and set by use of slings. A forklift of adequate lifting capacity can also be utilized to move or position the OWS tank.
  - 3.1.2. Do not handle or install the OWS without knowledge of proper installation procedures, applicable codes and inherent dangers involved with OWS installations. Installation should only be performed by trained professional installers to assure safe, proper installation and continued quality performance.
  - 3.1.3. Do not move the OWS unless all liquid is removed.
  - 3.1.4. The OWS is designed for stationary use only. It is not recommended for mobile applications or to be transported containing any liquid.

#### 4. PIPING/VENTING

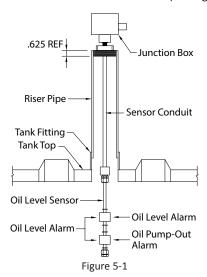
- 4.1. Taking care to ensure a water tight seal, attach the inlet piping to threaded inlet fitting provided. If the OWS is to utilize a gravity flow inlet system, inlet piping must be sloped 1/8 to 1/16 inch per foot towards the OWS to maintain gravity flow. It is recommended that the inlet pipe be vented to atmosphere in accordance with applicable codes.
- 4.2. Attach outlet piping to threaded outlet fitting provided. Outlet piping should be of adequate size and slope to allow unrestricted discharge flow. It is recommended that the outlet piping be vented to atmosphere in accordance with applicable codes.



- 4.3. Each OWS is provided with a vent fitting. It is recommended the OWS vessel be vented to atmosphere and in accordance with all applicable codes.
- 4.4. If the OWS is to utilize a pumped inlet flow system, the pump MUST be properly sized as to not exceed OWS design flow rate and be of the positive displacement type. Air or electrically operated diaphragm pumps are recommended.
- 4.5. Install accessories per instructions.
- 4.6. Properly cap all unused fittings with metal plugs using nonhardening sealant material.
- 4.7. Fill the OWS with clean, fresh water until discharge chamber is filled to level of discharge pipe or flow is seen from discharge pipe.

## 5. OPTIONAL ACCESSORIES

- 5.1. Oil Level Alarm System
  - 5.1.1. Install the float sensor in the designated fitting, do not cross the threads. Wire the sensor in accordance with the sensor/panel wiring instructions. No modifications to the sensor are required. Accumulated oil will activate an audible and visual alarm when the predetermined level of oil accumulates within the Oil/Water Separator.
- 5.2. Oil Level Sensors
  - 5.2.1. There are two types of sensors: double-float and single-float.
  - 5.2.2. Double-float are the alarm sensors (see Figure 5-1)



- 5.2.2.1. Oil level alarm warns that the tank is almost full of the oil storage capacity level and the oil will need to be removed soon.
- 5.2.2.2. Oil pump out alarm alerts the operator that the oil must be removed immediately.
- 5.2.3. The single-float alarm has only the oil pump out alarm which alerts the operator that the oil must be removed immediately.

- 5.2.4. Note: If the oil is not pumped out, the effluent concentration may exceed the desired levels if more oily water enters the tank. Oil should only be removed during non-flow conditions to insure pure oil draw-off.
- 5.2.5. For details and schematics, request tech sheet "Oil Interface Float Switch Models 40U and 50U B&S" Pub. No. ELC 7054.
- 5.3. Waste Oil Removal System
  - 5.3.1. Accumulated oil activates a waste oil removal pump for discharge into a separate waste oil storage tank. System includes intrinsically safe NEMA 4 control panel and control sensor.
  - 5.3.2. Optional waste oil tank may also be provided by Containment Solutions.
  - 5.3.3. Standard systems are installed at the factory and should be wired per the instructions provided with the system.
- 5.4. Inlet Pumping System
  - 5.4.1.Float controlled air operated diaphragm pump and associated accessories may be used to pump into the OWS. This package includes intrinsically safe NEMA 4 Control Panel, control sensor, and accessories needed (except piping and sump) to pump into the OWS.
  - 5.4.2.Install these components in accordance with the instructions provided with the system.
- 5.5. Outlet Pumping System
  - 5.5.1. This float controlled pumping system for discharge (effluent) from the OWS includes an intrinsically safe NEMA 4 control panel, control sensor, and pump.

#### 6. OPERATIONS & MAINTENANCE

6.1. As with any OWS, proper maintenance is an important factor to ensure optimal performance. Reference the most recent edition of Containmet Solutions Aboveground OWS Operations & Maintenance Instructions (Pub. No. OWS 2037).

