



Secondary Containment and Interstitial Monitoring: Federal Requirements

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Federal UST Requirements

- ◆ 40 CFR 280.41 - Requirements for petroleum UST systems
 - (a) Tanks – every 30 days
 - (b) Piping (pressure) – ALLD plus either: 1) gw, vapor, interstitial, SIR; or 2) annual LTT
- ◆ 40 CFR 280.42 – Hazardous substance USTs
- ◆ 40 CFR 280.43(g) - Interstitial monitoring
- ◆ 40 CFR 280.45 - Recordkeeping

Federal UST Requirements

- ◆ EPAAct 2005 – New and replaced underground tanks, piping, and dispensers within 1,000 feet of community water system or potable drinking water source
 - By February 8, 2007

What Are The Requirements?

- ◆ Secondary containment
 - Involves placing a barrier between the UST and the environment. The barrier provides secondary containment and can be a vault, liner, or the outer wall of a double-walled structure.

What Are The Requirements?

- ◆ The barrier must be immediately around or beneath the tank.
- ◆ The interstitial monitor must be checked at least once every 30 days.
- ◆ A double-walled system must be able to detect a release through the inner wall.
- ◆ An excavation liner must:
 - Direct a leak towards the monitor;
 - Not allow the specific product being stored to pass through it any faster than 0.000001 cm/sec;
 - Be compatible with the product stored in the tank;
 - Not interfere with the UST's cathodic protection;
 - Not be disabled by moisture;
 - Always be above the groundwater and the 25-year flood plain; and
 - Have clearly marked and secured monitoring wells, if they are used.

What Are Interstitial Monitors?

- ◆ Used to check the area between the tank and the barrier for leaks and alert the operator if a leak is suspected.
- ◆ Some monitors indicate the physical presence of the leaked product, either liquid or gaseous. Other monitors check for a change in condition that indicates a hole in the tank, such as a loss of vacuum or a change in the level of a monitoring liquid between the walls of a double-walled tank.
- ◆ Monitors can be as simple as a dipstick used at the lowest point of the containment to see if liquid product has leaked and pooled there. Monitors can also be sophisticated automated systems that continuously check for leaks.

Myth Versus Reality

- ◆ Sensors must be third-party certified.
- ◆ Records of monthly monitoring are not required when using interstitial monitoring.
- ◆ Sensors alone may be used to meet the 3 gph leak rate.

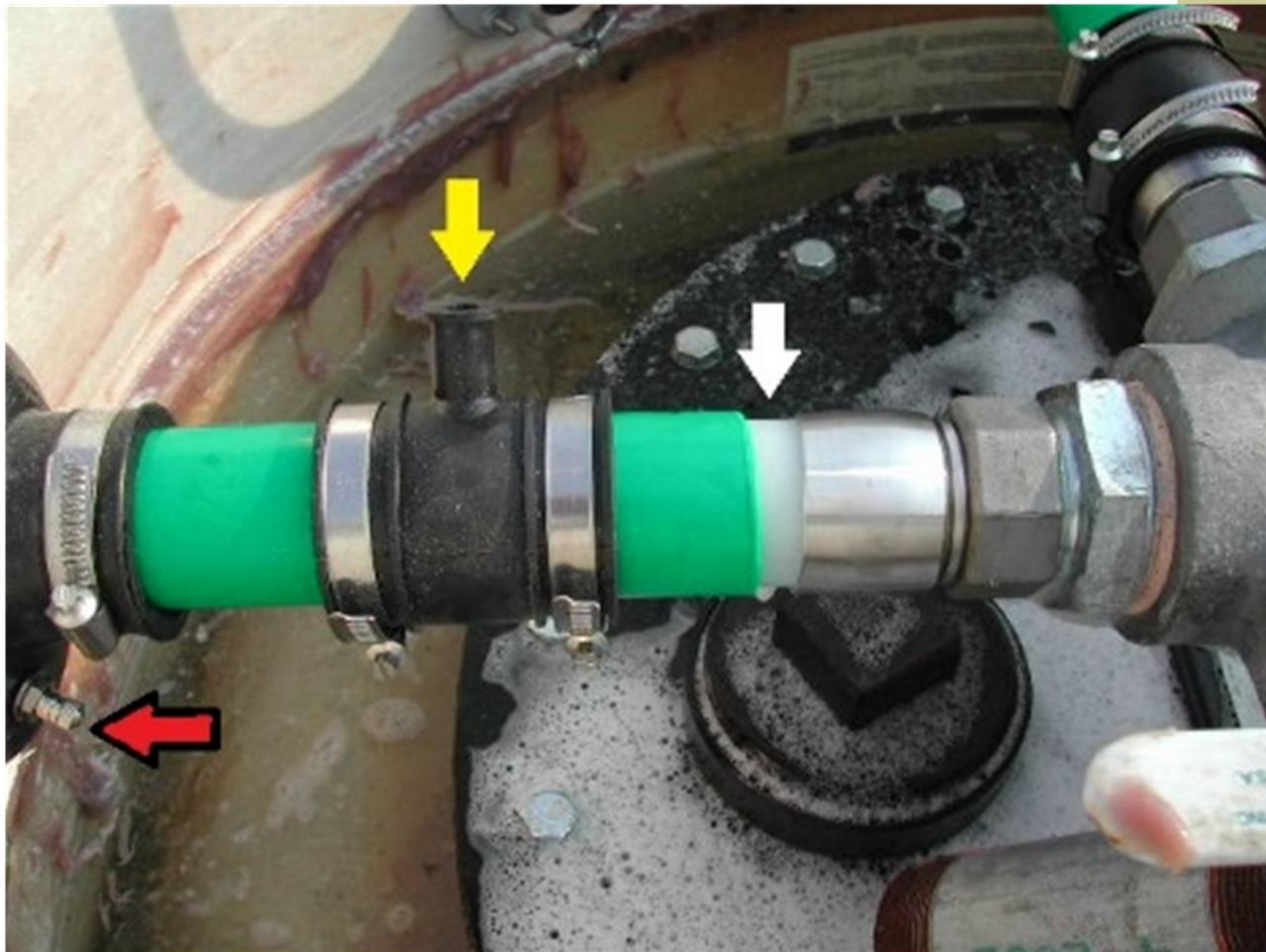
Upon First Glance

- ◆ Confidence builders that interstitial monitoring will satisfy the release detection requirements.
 - Position of sensors
 - Boots are off
 - Crossover tubes

Position of Sensors



Boots Are Off



Crossover Tubes





Contact Me



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