



POSITION PAPER - UST COMPLIANCE

Date: July 17, 2018

Subject: Sump Sensors only used as leak detectors in accordance with SC UST Control Regulation, R.61-92, Sections 280.41 and 280.44.

Regulation background/history: Federal regulation CFR 280.44 and SC UST Control Regulation, R.61-92, Section 280.44 state that each method of release detection for pressurized piping used to meet the requirements of R.61-92, Section 280.41 must have automatic line leak detectors (ALLD) installed which alert the operator to the presence of a leak by restricting or shutting off the flow of regulated substances through piping or triggering an audible or visual alarm if they detect leaks of 3 gallons per hour at 10 pounds per square inch line pressure within 1 hour.

Discussion: Beginning in 1992, some facilities were permitted with sump sensors as a stand alone method for leak detection for double walled pressurized piping in accordance with SC UST Regulation, R.61-92, Section 43(i)(2) and Section 44(c) as a variance to the installation of automatic line leak detectors. As part of that variance, it was noted that all leak detection systems must continue to meet the regulatory requirements of detecting a 3.0 gallon per hour leak within 1 hour. Currently, there are 24 facilities operating in SC with the above variance. The Department has worked closely with the EPA to determine the above variance meets the intent of both the Federal regulation CFR 280.44 and the South Carolina UST Control Regulation, R.61-92, Section 280.44.

Options: Therefore, for these facilities to continue to be in compliance, one of the following options must be selected:

1. Maintain the current open interstitial monitoring system which includes a sump sensor in the submersible turbine pump (STP) sump. The sump sensor must be installed to either provide positive shutdown of the STP or trigger an audible or visual alarm. All interstice must be open at all sumps.
2. Install a mechanical line leak detector on the pump head.
3. Install an electronic line leak detector on the pump head or in-line.
4. Install sump sensors in each containment sump and provide positive shutdown of the submersible pump or trigger an audible or visual alarm if a leak is detected.

The first and fourth options will require a facility to conduct integrity testing of all secondary containment sumps by May 26, 2020 and every 3 years thereafter. Facilities choosing the second or third options in conjunction with annual line tightness testing or different monthly release detection methods (other than interstitial monitoring) will not be subject to the 2020 secondary containment sump testing requirements.