

**SECTION .0900 - PERFORMANCE STANDARDS FOR UST SYSTEM OR UST SYSTEM COMPONENT
INSTALLATION OR REPLACEMENT COMPLETED ON OR AFTER NOVEMBER 1, 2007**

15A NCAC 02N .0901 GENERAL REQUIREMENTS

(a) This Section applies to a UST system or UST system component installation or replacement completed on or after November 1, 2007.

(b) A UST system or UST system component shall not be installed or replaced within an area defined in Rule .0301(b) of this Subchapter.

(c) A tank shall meet the requirements for secondary containment including interstitial release detection monitoring in accordance with this Rule.

(d) All UST system components other than tanks including connected piping, underground ancillary equipment, dispensers, line leak detectors, submersible pumps, spill buckets, siphon bars, and remote fill pipes shall meet the requirements for secondary containment including interstitial release detection monitoring in accordance with this Rule. Spill buckets replaced on tanks installed prior to November 1, 2007 may comply with the interstitial monitoring requirements described in Paragraph (k) of this Rule. Gravity-fed vertical fill pipes, vapor recovery, vent lines, and containment sumps are excluded from the secondary containment requirements in this Rule.

(e) A UST system design is required for installation or replacement of a UST system, UST, or connected piping. If required by G.S. 89C, UST system designs must be prepared by a Professional Engineer licensed by the North Carolina Board of Examiners for Engineers and Surveyors.

[Note: The North Carolina Board of Examiners for Engineers and Surveyors has determined via letter dated December 20, 1993, that preparation of a UST system design constitutes practicing engineering under G.S. 89C.]

(f) If required by the equipment manufacturer, persons installing, replacing or repairing UST systems or UST system components must be trained and certified by the equipment manufacturer or the equipment manufacturer's authorized representative to install, replace or repair such equipment.

(g) UST systems or UST system components shall be installed, tested, operated, and maintained in accordance with the manufacturer's specifications and the codes of practice, and industry standards described in Rule .0907 of this Section.

(h) UST systems or UST system components shall not be installed or replaced in areas where they will be in contact with contaminated soil or free product.

(i) Secondary containment systems shall be designed, constructed, installed and maintained to:

- (1) detect the failure of the inner wall and outer wall for UST system components with double wall construction;
- (2) contain regulated substances released from a UST system until they are detected and removed;
- (3) prevent a release of regulated substances to the environment outside of the containment system;
- (4) direct releases to a monitoring point or points;
- (5) provide a release detection monitoring device or monitoring method for the interstitial space;
- (6) on an uninterrupted basis, monitor the inner and outer walls of double-walled tanks for breaches of integrity using pressure, vacuum or hydrostatic monitoring methods or monitor the interstitial space of double-walled tanks for releases using an electronic liquid detecting sensor method along with periodic testing as specified in Rule .0903(f) of this Section;
- (7) on an uninterrupted basis, monitor the inner and outer walls of double-walled non-tank components for breaches of integrity using pressure, vacuum, or hydrostatic methods, or monitor a non-tank component for releases by using an electronic liquid detecting sensor placed in a containment sump and in the interstitial space of a double-walled spill bucket along with periodic integrity testing as specified in Rules .0904(f), .0905(g) and .0906(e) of this Section; and
- (8) provide a printed record of release detection monitoring results and an alarm history for each month.

(j) Electronic liquid detecting sensors used to monitor the interstitial space of double-walled tanks and non-tank components shall meet the following requirements:

- (1) Electronic liquid detecting sensors used for tanks and spill buckets shall be located at the lowest point in the interstitial space. Electronic liquid detecting sensors used for containment sumps shall be located as specified in Rule .0905(d) of this Section.
- (2) A tank shall have a method to verify that an electronic liquid detecting sensor is located at the lowest point of the interstitial space. Verification of the sensor location shall be available for inspection.

- (3) Electronic liquid detecting sensors shall detect the presence of any liquid in the interstitial space and shall activate an alarm when any type of liquid is detected.
 - (4) Any liquid detected in the interstitial space must be removed within 48 hours of discovery.
- (k) Spill buckets replaced on tanks installed prior to November 1, 2007 may use mechanical liquid detecting sensors for interstitial leak detection monitoring instead of electronic liquid detecting sensors. If a mechanical liquid detecting sensor is used, then Subparagraphs (i)(7) and (8) of this Rule do not apply. However, the spill bucket shall comply with all spill bucket requirements of Rule .0906 of this Section. In addition, the following specific requirements shall be met:
- (1) mechanical liquid detecting sensors shall be located at the lowest point in the interstitial space;
 - (2) mechanical liquid detecting sensors shall detect the presence of any liquid in the interstitial space. The presence of liquid shall register on a gauge that can be viewed from within the spill bucket;
 - (3) spill buckets shall be monitored every 30 days. The interstitial leak detection monitoring results shall be documented for each month;
 - (4) any liquid detected in the interstitial space shall be removed within 48 hours of discovery; and
 - (5) spill buckets shall be integrity tested every three years in accordance with Rule .0906(e) of this Section.
- (l) New or replacement dispensers shall be provided with under dispenser containment sumps and shall meet the secondary containment requirements and performance standards of this Rule.
- (m) All release detection monitoring equipment shall be installed, calibrated, operated and maintained in accordance with manufacturer's instructions. All release detection monitoring equipment shall be checked annually for operability, proper operating condition and proper calibration in accordance with the manufacturer's written guidelines. The results of the last annual check must be recorded, maintained at the UST site or the tank owner or operator's place of business, and made available for inspection.
- (n) Releases detected in an interstitial space shall be reported in accordance with Rule .0601 of this Subchapter and investigated in accordance with the manufacturer's written guidelines. Any changes in the original physical characteristics or integrity of a piping system or a containment sump shall also be reported in accordance with Rule .0601 of this Subchapter and investigated in accordance with the manufacturer's written guidelines.
- (o) UST systems and UST system components shall also meet all of the requirements specified in 40 CFR 280.20(c), (d), and (e). In addition, overflow prevention equipment shall be inspected at least once every three years for operability, proper operating condition and proper calibration in accordance with:
- (1) written requirements developed by the manufacturer;
 - (2) a code of practice developed by a nationally recognized association or independent testing laboratory; or
 - (3) requirements determined by the US Environmental Protection Agency or the Division to be no less protective of human health and the environment than the requirements listed in Subparagraph (1) or (2) of this Paragraph. The inspection shall ensure that overflow prevention equipment is set to activate at the correct level specified in 40 CFR 280.20(c)(1)(ii) and will activate when regulated substance reaches that level.
 - (4) The results of the last triennial check shall be recorded, maintained at the UST site or the tank owner or operator's place of business, and made available for inspection.

*History Note: Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h);
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