15A NCAC 02N .0304 is amended as published in 29:09 NCR 1048-1051 as follows:

15A NCAC 02N .0304 IMPLEMENTATION SCHEDULE FOR PERFOMANCE STANDARDS FOR NEW UST SYSTEMS AND UPGRADING REQUIREMENTS FOR EXISTING UST SYSTEMS LOCATED IN AREAS DEFINED IN RULE .0301(D)

(a) The following implementation schedule shall apply only to owners and operators of UST systems located within areas defined in Rule .0301(d) of this Section. This implementation schedule shall be used by the Department for tank owners and operators to comply with the secondary containment requirements contained in Rule .0301(d) for new UST systems and the secondary containment requirements contained in Rule .0302(a) for existing UST systems.

(1) All new UST systems and replacements to an UST system shall be provided with secondary containment as of April 1, 2001.

(2) All steel or metal connected piping and ancillary equipment of an ~~UST~~ UST, regardless of date of installation, shall be provided with secondary containment as of January 1, 2005.

(3) All fiberglass or non-metal connected piping and ancillary equipment of an ~~UST~~ UST, regardless of date of installation, shall be provided with secondary containment as of January 1, 2008.

(4) All UST systems installed on or before January 1, 1991 shall be provided with secondary containment as of January 1, 2008.

(5) All ~~UST systems~~ USTs installed after January 1, ~~1991~~ 1991, and prior to April 1, 2001, shall be provided with secondary containment as of January 1, ~~2016.~~ 2020. Owners of USTs located within 100 to 500 feet of a public water supply well, if the well serves only a single facility and is not a community water system ~~[certain USTs subject to this requirement,]~~ may seek a variance in accordance with ~~[15A NCAC 02N .0304]~~ Paragraphs (d) through ~~[(g)]~~ (i) of this Rule.

(b) All owners and operators of UST systems shall implement the following enhanced leak detection monitoring as of April 1, 2001. The enhanced leak detection monitoring ~~must~~ shall consist of the following:

(1) ~~Install~~ Installation of an automatic tank gauging system ~~(ATG)~~ for each UST;

(2) ~~Install~~ Installation of an electronic line leak detector ~~(ELLD)~~ for each pressurized piping system;

(3) ~~Conduct~~ Conducting ~~at least~~ one 0.1 gallon per hour (gph) test per month or ~~at least~~ one 0.2 gph test per week on each UST system;

(4) ~~Conduct~~ Conducting a line tightness test capable of detecting a leak rate of 0.1 gph, ~~at least~~ once per year for each suction piping system. No release detection is required for suction piping that is designed and constructed in accordance with 40 CFR 280.41(b)(2)(i) through ~~(iv)~~ (v);

(5) If the UST system is located within 500 feet of a public water supply well or within 100 feet of any other well supplying water for human consumption, sample the supply well at least once per year. The sample collected from the well ~~must~~ shall be ~~analyzed for the constituents of petroleum using the following methods~~ characterized in accordance with:

(A) Standard Method 6200B, Volatile Organic Compounds Purge and Trap Capillary-Column Gas Chromatographic/Mass Spectrometric Method, which is incorporated by reference,

including subsequent amendments, and may be obtained at http://www.standardmethods.org/ at a cost of sixty-nine dollars ($69.00); ~~EPA Methods 601 and 602, including methyl tertiary butyl ether, isopropyl ether and xylenes;~~

(B) EPA Method ~~625;~~ 625, Base/Neutrals and Acids, which is incorporated by reference, including subsequent amendments, and may be accessed free of charge at http://water.epa.gov/scitech/methods/cwa/organics/upload/2007_07_10_methods_method_organics_625.pdf; and

(C) If a waste oil UST system is present ~~which~~ that does not meet the requirements for secondary containment in accordance with 40 CFR 280.42(b)(1) through (4), the sample shall also be analyzed for lead and chromium using ~~Standard Method 3030C preparation~~ Method 6010C, Inductively Coupled Plasma-Atomic Emission Spectrometry, which is incorporated by reference including subsequent amendments, and may be accessed free of charge at http://www.epa.gov/epawaste/hazard/testmethods/sw846/pdfs/6010c.pdf or Method 6020A, Inductively Coupled Plasma-Mass Spectrometry, which is incorporated by reference including subsequent amendments, and may be accessed free of charge at http://www.epa.gov/epawaste/hazard/testmethods/sw846/pdfs/6020a.pdf; and

(6) The first sample collected in accordance with Subparagraph (b)(5) of this Rule shall be collected and the results received by the Division by October 1, 2000 and yearly thereafter.

(c) An UST system or UST system component installation completed on or after November 1, 2007 to upgrade or replace an UST system or UST system component described in Paragraph (a) of this Rule shall meet the performance standards of Section .0900 of this Subchapter.

(d) The [~~Director~~] Environmental Management Commission may grant a variance from the secondary containment upgrade requirements in [~~15A NCAC 02N .0304~~] Subparagraph (a)(5) of this Rule for USTs located within 100 to 500 feet of a public water supply well, if the well serves only a single facility and is not a community water system. Any request for a variance shall be in writing by the owner of the UST for which the variance is sought. The request for variance shall be submitted to the Director, Division of Waste Management, 1646 Mail Service Center, Raleigh, NC 27699-1646. The [~~Director~~] Environmental Management Commission shall grant the variance if the [~~Director~~] Environmental Management Commission finds facts to support the following conclusions:

(1) [~~Such~~] The variance will not endanger human health and welfare or groundwater; and

(2) UST systems are operated and maintained in compliance with all applicable federal laws and regulations and state laws and rules.

(e) The [~~Director~~] Environmental Management Commission may require the variance applicant to submit such information as the [~~Director~~] Environmental Management Commission deems necessary to make a decision to grant or deny the variance. Information that may be requested includes the following:

(1) Water supply well location, depth, construction specifications, and sampling results;

(2) Groundwater depth and flow direction; and

(3) Leak detection monitoring and testing results.

(f) The [~~Director~~] Environmental Management Commission may impose such conditions on a variance as the [~~Director~~] Environmental Management Commission deems necessary to protect human health and welfare and groundwater. Conditions for a variance may include the following:

(1) Increased frequency of leak detection and leak prevention monitoring and testing;

(2) Periodic water supply well sampling; and

(3) Increased reporting and recordkeeping.

(g) The findings of fact supporting any variance under this [~~rule~~] Rule shall be in writing and made part of the variance.

[~~(f)~~] (h) The [~~Director~~] Environmental Management Commission may rescind a variance that was previously granted if the [~~Director~~] Environmental Management Commission [~~finds~~] discovers through inspection or reporting that the conditions of the variance are not met or that the facts no longer support the conclusions in [~~15A NCAC 02N .0304~~] Subparagraphs (d)(1) and (2) of this Rule.

[~~(g)~~] (i) An owner of a UST system who is aggrieved by a decision of the [~~Director~~] Environmental Management Commission to deny or rescind a variance, may commence a contested case by filing a petition under G.S. 150B-23 within 60 days after receipt of the decision.

History Note: *Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h);*
Temporary Adoption Eff. May 1, 2000;
Eff. April 1, 2001;
Amended Eff. June 1, 2015; November 1, 2007.

15A NCAC 02N .0903 is amended as published in 29:09 NCR 1048-1051 as follows:

15A NCAC 02N .0903 TANKS

(a) Tanks must be protected from external corrosion in accordance with 40 CFR 280.20(a)(1), (2), ~~(3)~~ (3), or (5).

(b) Owners and operators of tanks installed in accordance with 40 CFR [~~280.20(a)(2), must~~] 280.20(a)(2) shall comply with all applicable requirements for corrosion protection systems contained in this [~~subchapter~~] Subchapter.

~~(b)~~(c) The exterior surface of a tank shall bear a permanent marking, code ~~stamp~~ stamp, or label showing the following information:

(1) The engineering standard used;

(2) The diameter in feet;

(3) The capacity in gallons;

(4) The materials of construction of the inner and outer walls of the ~~tank~~ tank, including any external or internal coatings;

(5) Serial number or other unique identification number designated by the tank manufacturer;

(6) Date manufactured; and

(7) Identity of manufacturer.

~~(c) Whenever an existing tank is removed prior to installation of a new tank, piping that does not meet the standards of this Section shall also be removed. The replacement tank shall not be connected to piping that does not meet the standards of this Section.~~

(d) Tanks that will be reused ~~must~~ shall be certified by the tank manufacturer prior to re-installation and ~~must~~ meet all of the requirements of this Section. Tank owners and operators ~~must~~ shall submit proof of certification to the Division along with a notice of intent (Rule .0902).

(e) Tanks shall be tested before and after installation in accordance with the following requirements:

(1) Pre- Installation Test - Before installation, the primary containment and the interstitial space shall be tested in accordance with the manufacturers written guidelines and PEI/RP100, "Recommended Practice for Installation of Underground Liquid Storage Systems." PEI/RP100, "Recommended Practice for Installation of Underground Liquid Storage Systems" is hereby incorporated by reference including subsequent amendments and editions. A copy ~~can~~ may be obtained from Petroleum Equipment Institute, P.O. Box 2380, Tulsa, Oklahoma 74101-2380 at a cost of ninety-five dollars ($95.00). The presence of soap bubbles or water droplets during a pressure test, any change in vacuum beyond the limits specified by the tank manufacturer during a vacuum test, or any change in liquid level in an interstitial space liquid reservoir beyond the limits specified by the tank manufacturer, shall be considered a failure of the integrity of the tank.

(2) Post-installation Test – The interstitial space shall be checked for a loss of pressure or vacuum, or a change in liquid level in an interstitial space liquid reservoir. Any loss of pressure or vacuum beyond the limits specified by the tank manufacturer, or a change in liquid level beyond the limits specified by the tank manufacturer, shall be considered a failure of the integrity of the tank.

(3) If a tank fails a pre-installation or post-installation test, tank installation shall be suspended until the tank is replaced or repaired in accordance with the manufacturer's specifications. Following any repair, the tank shall be re-tested in accordance with Subparagraph (e)(1) of this Rule if it failed the pre-installation test and in accordance with Subparagraph (e)(2) of this Rule if it failed the post-installation test.

(f) The interstitial spaces of tanks that are not monitored using vacuum, ~~pressure~~ pressure, or hydrostatic methods ~~must~~ shall be tested for tightness before UST system start-up, between six months and the first anniversary of ~~start-up~~ start-up, and every three years thereafter. The interstitial space shall be tested using an interstitial tank tightness test method that is capable of detecting a 0.10 gallon per hour leak rate with a probability of detection (Pd) of at least 95 percent and a probability of false alarm (Pfa) of no more than ~~five~~ 5 percent. The test method ~~must~~ shall be evaluated by an independent testing laboratory, consulting firm, not-for-profit research ~~organization~~ organization, or educational institution using the most recent version of the United States Environmental Protection Agency's (EPA's) "Standard Test Procedures for Evaluating Leak Detection Methods." EPA's "Standard Test Procedures for Evaluating Leak Detection Methods" is hereby incorporated by reference including subsequent amendments and additions. A copy may be obtained by visiting EPA's Office of Underground Storage Tank ~~web site: www.epa.gov/OUST/pubs/protocol.htm~~ website: http://www.epa.gov/OUST/pubs/protocol.htm ~~at a cost of zero dollars ($0.00)~~ and may be accessed free of charge. The independent testing laboratory, consulting firm, not-for-profit research ~~organization~~ organization, or educational institution ~~must~~ shall certify that the test method can detect a 0.10 gallon per hour leak rate with a Pd of at least 95 percent and a Pfa of no more than ~~five~~ 5percent for the specific tank model being tested. If a tank fails an interstitial tank tightness test, it ~~must~~ shall be replaced by the owner or operator or repaired by the manufacturer or the manufacturer's authorized representative in accordance with manufacturer's specifications. Tank owners and operators shall report all failed interstitial tank tightness tests to the Division within 24 hours. Failed interstitial tank tightness tests shall be reported by fax to the Division of Waste Management, Underground Storage Tank Section, at (919) 715-1117. Following any repair, the tank interstitial space shall be re-tested for tightness. The most recent interstitial tightness test record ~~must~~ shall be maintained at the UST site or the tank owner's or operator's place of business and ~~must~~ shall be available for inspection.

History Note: *Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h);*
Eff. November 1, 2007;
Amended Eff. June 1, 2015; February 1, 2010.

15A NCAC 02N .0904 is amended as published in 29:09 NCR 1048-1051 as follows:

15A NCAC 02N .0904 PIPING

(a) Piping, with the exception of flexible connectors and piping connections, shall be pre-fabricated with double-walled construction. Any flexible connectors or piping connections that do not have double-walled construction shall be installed in containment sumps that meet the requirements of 15A NCAC 02N .0905.

(b) Piping ~~must~~ shall be constructed of non-corroding materials. Metal flexible connectors and piping connections shall be installed in containment sumps that meet the requirements of 15A NCAC 02N .0905.

(c) Piping ~~must~~ shall comply with the UL 971 standard "Nonmetallic Underground Piping for Flammable Liquids;" that is in effect at the time the piping is installed. UL 971 standard "Nonmetallic Underground Piping for Flammable Liquids" is hereby incorporated by reference including subsequent amendments and editions. A copy may be obtained from Underwriters Laboratories, 333 Pfingsten Road, Northbrook, Illinois 60062-2096 at a cost of four hundred ~~forty-five~~ and two dollars ~~($445.00)~~ ($402.00).

(d) Piping that is buried underground ~~must~~ shall be constructed with a device or method that allows it to be located once it is installed.

(e) Piping that conveys regulated substances under pressure ~~must~~ shall also be equipped with an automatic line leak detector that meets the requirements of 40 CFR 280.44(a).

~~(f) When existing piping is replaced or extended, the entire piping system shall meet the standards of this Section. However, if only existing riser pipes, flexible connectors, fittings, flanges, valves or pumps are replaced, then only the replacement equipment must meet the standards of this Section.~~

~~(g)~~ (f) At the time of installation, the primary containment and interstitial space of the piping shall be initially tested, monitored during ~~construction~~ construction, and finally tested in accordance with the manufacturers written guidelines and PEI/RP100, "Recommended Practice for Installation of Underground Liquid Storage Systems." The presence of soap bubbles or water droplets or any loss of pressure beyond the limits specified by the piping manufacturer during testing shall be considered a failure of the integrity of the piping. If the piping fails a tightness test, it ~~must~~ shall be replaced by the owner or operator or repaired by the manufacturer or the manufacturer's authorized representative in accordance with the manufacturer's written specifications. Following any repair, the piping ~~must~~ shall must be re-tested for tightness in accordance with the manufacturers written guidelines and PEI/RP100, "Recommended Practice for Installation of Underground Liquid Storage Systems."

~~(h)~~ (g) Piping that is not monitored continuously for releases using vacuum, ~~pressure~~ pressure, or hydrostatic methods, ~~must~~ shall be tested for tightness every three years following installation. The primary containment and interstitial space of the piping shall be tested in accordance with the manufacturers written guidelines and PEI/RP100 "Recommended Practice for Installation of Underground Liquid Storage Systems." If the piping fails a tightness test, it ~~must~~ shall be replaced or repaired by the manufacturer or the manufacturer's authorized representative in accordance with the manufacturer's specifications. Following any repair, the piping ~~must~~ shall be re-tested for tightness. The most recent periodic tightness test record ~~must~~ shall be maintained at the UST site or the tank owner or operator's place of business and ~~must~~ shall be ~~readily~~ available for inspection.

History Note: *Authority G.S. ~~143-215.3(A)(15); 143B-282(A)(2)(H)~~; 143-215.3(a)(15); 143B-282(a)(2)(h);*
Eff. November 1, ~~2007.~~ 2007;
Amended Eff. June 1, 2015.