

REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02N .0304

DEADLINE FOR RECEIPT: Thursday, May 14, 2015

NOTE WELL: *This request when viewed on computer extends several pages. Please be sure you have reached the end of the document.*

The Rules Review Commission staff has completed its review of this rule prior to the Commission's next meeting. The Commission has not yet reviewed this rule and therefore there has not been a determination as to whether the rule will be approved. You may call this office to inquire concerning the staff recommendation.

In reviewing these rules, the staff determined that the following technical changes need to be made:

Throughout this Rule, you refer to dates that have already passed. For example, you state in (a)(1) that all new systems must have a secondary containment as of April 1, 2001, which is 14 years ago; this means all systems must now have this. Do you need to keep these dates that have already passed in the Rule, or could you now just state "All UST systems and replacements of a UST system shall be provided with secondary containment."?

In (a)(2) and (3), lines 12 and 14, insert a comma after "UST"

In (a)(5), line 19, what do you mean by "certain USTs"? Is it the USTs that would qualify for waiver under Paragraph (d)? If so, please just state that.

On line 20, delete the comma after "requirement"

Also on line 20, while what you cite (15A NCAC 02N .0304) is also correct, I think it would be clearer to simply state "Paragraphs (d) through (g) of this Rule." (And would be consistent with existing Rule language, such as (c), line 7).

In (b), line 22, replace "must" with "shall"

In (b)(1) and (2), you state acronyms "(ATG)" and "(ELLD)" but you don't use those acronyms elsewhere in the Rule or other rules in the Subchapter. Is the language for the ease of your regulated public?

Also, as I read (b), it says that the monitoring has the following components. However, (b)(1) through (5) speak to actions like "install" or "conduct" Am I misreading this language, such that it is the verb "monitoring" or should (b)(1) be "installation"?

In (b)(3), generally "at least" or "at a minimum" is generally not preferred rule language, as rules set minimum standards. However, I take it you need "at least" here?

Amanda J. Reeder
Commission Counsel
Date submitted to agency: April 30, 2015

In (b)(4), do you want to state on line 29, “40 CFR 280.41(b)(2)(i) through (v)”? I know you incorporated this standard by reference in Rule .0502 of the Subchapter, including subsequent amendments and editions, but it seems that this is now (i) through (v); if so, I suggest updating it.

§ 280.41 Requirements for petroleum UST systems.

Owners and operators of petroleum UST systems must provide release detection for tanks and piping as follows:

(b) Piping. Underground piping that routinely contains regulated substances must be monitored for releases in a manner that meets one of the following requirements:

- (1) Pressurized piping. Underground piping that conveys regulated substances under pressure must:
 - (i) Be equipped with an automatic line leak detector conducted in accordance with § 280.44(a); and
 - (ii) Have an annual line tightness test conducted in accordance with § 280.44(b) or have monthly monitoring conducted in accordance with § 280.44(c).
- (2) Suction piping. Underground piping that conveys regulated substances under suction must either have a line tightness test conducted at least every 3 years and in accordance with § 280.44(b), or use a monthly monitoring method conduct in accordance with § 280.44(c). No release detection is required for suction piping that is designed and constructed to meet the following standards:
 - (i) The below-grade piping operates at less than atmospheric pressure;
 - (ii) The below-grade piping is sloped so that the contents of the pipe will drain back into the storage tank if the suction is released;
 - (iii) Only one check valve is included in each suction line;
 - (iv) The check valve is located directly below and as close as practical to the suction pump; and
 - (v) A method is provided that allows compliance with paragraphs (b)(2) (ii)-(iv) of this section to be readily determined.

In (b)(5), line 32, replace “must” with “shall”

In (b)(5)(A) and (B), you must incorporate these standards by reference using G.S. 150B-21.6. For an example of this language, please see Rule 15A NCAC 05H .2003(g).

In (b)(5)(C), Page 2, line 1, replace which” with “that”

In (b)(5)(C), line 3, what is the “Standard Method 3030C preparation”?

In (d), SL 2011-394 states:

SECTION 11.6.(b) Notwithstanding 15A NCAC 02N .0304(a)(5) (Implementation Schedule for Performance Standards for New UST Systems and Upgrading Requirements for Existing UST Systems Located in Areas Defined in Rule .0301(d)), the Commission shall establish a process for the grant of variances from the setbacks required for UST systems from certain public water supply wells, particularly those that serve only a single facility which are not community water systems, if the Commission finds facts to demonstrate that such variance will not endanger human health and welfare or groundwater.

Amanda J. Reeder
Commission Counsel
Date submitted to agency: April 30, 2015

Here, you are assigning the right to make the waiver to the Department. What is your authority to do this?

Further, do you read this portion of the Session Law to allow you to limit the waivers to only those serving a single facility that are not community water systems, rather than giving the EMC direction to particularly focus on those systems?

Also in (d), you require the request to be in writing. Is it supposed to be sent the Director? I am assuming so, but the Rule does not say that. Also, do you have a rule with the contact information for the Director so people know where to send it?

On line 10, it would be clearer to state "requirements in Subparagraph (a)(5) of this Rule for USTs..."

In (d)(1), line 14, replace "such" with "the"

In (e), what types of information may be requested or needed? What conditions may be imposed? You may not need to list everything here, but the Rule needs to include guidance.

In (e), line 20, "Rule" must be capitalized.

In (f), what are you saying? When will this happen? Is it following inspection?

Also in (f), I recommend stating, "in Subparagraphs (d)(1) and (2) of this Rule."

In (g), I take it this appeal right exists because it is an action on the permit?

Please retype the rule accordingly and resubmit it to our office at 1711 New Hope Church Road, Raleigh, North Carolina 27609.

1 15A NCAC 02N .0304 is amended as published in 29:09 NCR 1048-1051 as follows:

2
3 **15A NCAC 02N .0304 IMPLEMENTATION SCHEDULE FOR PERFORMANCE STANDARDS FOR NEW**
4 **UST SYSTEMS AND UPGRADING REQUIREMENTS FOR EXISTING UST SYSTEMS LOCATED IN**
5 **AREAS DEFINED IN RULE .0301(D)**

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

- 10 (1) All new UST systems and replacements to an UST system shall be provided with secondary
11 containment as of April 1, 2001.
- 12 (2) All steel or metal connected piping and ancillary equipment of an UST regardless of date of
13 installation, shall be provided with secondary containment as of January 1, 2005.
- 14 (3) All fiberglass or non-metal connected piping and ancillary equipment of an UST regardless of date of
15 installation, shall be provided with secondary containment as of January 1, 2008.
- 16 (4) All UST systems installed on or before January 1, 1991 shall be provided with secondary containment
17 as of January 1, 2008.
- 18 (5) All ~~UST systems~~ USTs installed after January 1, ~~1991~~ 1991, and prior to April 1, 2001, shall be
19 provided with secondary containment as of January 1, ~~2016~~ 2020. Owners of certain USTs subject to
20 this requirement, may seek a variance in accordance with 15A NCAC 02N .0304 (d) through (g).

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

- 23 (1) Install an automatic tank gauging system (ATG) for each UST;
- 24 (2) Install an electronic line leak detector (ELLD) for each pressurized piping system;
- 25 (3) Conduct at least one 0.1 gallon per hour (gph) test per month or at least one 0.2 gph test per week on
26 each UST system;
- 27 (4) Conduct a line tightness test capable of detecting a leak rate of 0.1 gph, at least once per year for each
28 suction piping system. No release detection is required for suction piping that is designed and
29 constructed in accordance with 40 CFR 280.41(b)(2)(i) through (iv);
- 30 (5) If the UST system is located within 500 feet of a public water supply well or within 100 feet of any
31 other well supplying water for human consumption, sample the supply well at least once per year. The
32 sample collected from the well must be analyzed for the constituents of petroleum using the following
33 methods:
- 34 (A) EPA Methods 601 and 602, including methyl tertiary butyl ether, isopropyl ether and
35 xylenes;
- 36 (B) EPA Method 625; and

(C) If a waste oil UST system is present which 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.

(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 may grant a variance from the secondary containment upgrade requirements in 15A NCAC 02N .0304(a)(5) 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 Director shall grant the variance if the Director finds facts to support the following conclusions:

(1) Such 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 may require the variance applicant to submit such information as the Director deems necessary to make a decision to grant or deny the variance. The Director may impose such conditions on a variance as the Director deems necessary to protect human health and welfare and groundwater. The findings of fact supporting any variance under this rule shall be in writing and made part of the variance.

(f) The Director may rescind a variance that was previously granted if the Director finds that the conditions of the variance are not met or that the facts no longer support the conclusions in 15A NCAC 02N .0304(d)(1) and (2).

(g) An owner of a UST system who is aggrieved by a decision of the Director 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.

REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02N .0903

DEADLINE FOR RECEIPT: Thursday, May 14, 2015

The Rules Review Commission staff has completed its review of this rule prior to the Commission's next meeting. The Commission has not yet reviewed this rule and therefore there has not been a determination as to whether the rule will be approved. You may call this office to inquire concerning the staff recommendation.

In reviewing these rules, the staff determined that the following technical changes need to be made:

In (b), line 5, underline "(b)".

Also on line 5, delete the comma after 40 CFFR 280.22(a)(2) and replace "must" with "shall"

On line 6, capitalize "Subchapter" and insert a period after it.

In (c), line 7, insert a comma after "stamp"

In (c)(4), line 12, please insert a comma after "tank"

In (d), line 20, replace the first "must" with "shall" and delete the second "must" so the sentence reads, "Tanks that will be reused shall be certified by the tank manufacturer prior to re-installation and meet all..."

Replace "must" with "shall" on line 21.

In (e)(1), line 28, I suggest replacing "can" with "may"

In (f), Page 2, line 6, insert a comma after "pressure"

On line 6, replace "must" with "shall"

On line 7, insert a comma after "start-up"

In (f), I take you need to retain the "at least" and "no more than" language on lines 9 and 10?

On lines 10 and 17, replace "five" with "5" (See Rule 26 NCAC 02C .0108(9)(c))

On line 10, replace "must" with "shall"

On line 11, insert a comma after "organization"

Amanda J. Reeder
Commission Counsel
Date submitted to agency: April 30, 2015

*In (f), line 15, I tried the url and it did not work. Is this what you are referring to:
<http://www.epa.gov/oust/ustsystem/sir90.pdf>*

If so, please update the url.

On line 15, "website" is one word.

Also on line 15, what you have is correct, but you may consider saying "website [url] that may be accessed free of charge. The independent..."

On line 16, please insert a comma after "organization" and replace "must" with "shall"

On line 18, who replaces the tank? The owner or operator or the manufacturer?

On line 20, you require reporting to the Division. Do you have a Rule with the contact information for the Division?

On lines 21 and 22, replace "must" with "shall"

Also on line 22, who will make the inspection? Is it Division staff, as set forth in 15A NCAC 02N .0101(c)?

15A NCAC 02N .0101 GENERAL

- (a) The purpose of this Subchapter is to establish the technical standards and corrective action requirements for owners and operators of underground storage tanks.
- (b) The Groundwater Section of the Division of Environmental Management shall administer the underground storage tank program for the State of North Carolina.
- (c) Division staff may conduct inspections as necessary to ensure compliance with this Subchapter.

Please retype the rule accordingly and resubmit it to our office at 1711 New Hope Church Road, Raleigh, North Carolina 27609.

Amanda J. Reeder
Commission Counsel
Date submitted to agency: April 30, 2015

1 15A NCAC 02N .0903 is amended as published in 29:09 NCR 1048-1051 as follows:

2
3 **15A NCAC 02N .0903 TANKS**

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

5 (b) Owners and operators of tanks installed in accordance with 40 CFR 280.20(a)(2), must comply with all applicable
6 requirements for corrosion protection systems contained in this subchapter

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

9 (1) The engineering standard used;

10 (2) The diameter in feet;

11 (3) The capacity in gallons;

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

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

15 (6) Date manufactured; and

16 (7) Identity of manufacturer.

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

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

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

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

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

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

6 (f) The interstitial spaces of tanks that are not monitored using vacuum, pressure or hydrostatic methods must be tested
7 for tightness before UST system start-up, between six months and the first anniversary of start-up and every three years
8 thereafter. The interstitial space shall be tested using an interstitial tank tightness test method that is capable of detecting
9 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
10 (Pfa) of no more than five percent. The test method must be evaluated by an independent testing laboratory, consulting
11 firm, not-for-profit research organization or educational institution using the most recent version of the United States
12 Environmental Protection Agency's (EPA's) "Standard Test Procedures for Evaluating Leak Detection Methods." EPA's
13 "Standard Test Procedures for Evaluating Leak Detection Methods" is hereby incorporated by reference including
14 subsequent amendments and additions. A copy may be obtained by visiting EPA's Office of Underground Storage Tank
15 web site: www.epa.gov/oust/pubs/protocol.htm at a cost of zero dollars (\$0.00). The independent testing laboratory,
16 consulting firm, not-for-profit research organization or educational institution must certify that the test method can detect
17 a 0.10 gallon per hour leak rate with a Pd of at least 95 percent and a Pfa of no more than five percent for the specific
18 tank model being tested. If a tank fails an interstitial tank tightness test, it must be replaced or repaired by the
19 manufacturer or the manufacturer's authorized representative in accordance with manufacturer's specifications. Tank
20 owners and operators shall report all failed interstitial tank tightness tests to the Division within 24 hours. Following any
21 repair, the tank interstitial space shall be re-tested for tightness. The most recent interstitial tightness test record must be
22 maintained at the UST site or the tank owner's place of business and must be available for inspection.

23
24 *History Note:* *Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h);*
25 *Eff. November 1, 2007;*
26 *Amended Eff. June 1, 2015; February 1, 2010.*

REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02N .0904

DEADLINE FOR RECEIPT: Thursday, May 14, 2015

The Rules Review Commission staff has completed its review of this rule prior to the Commission's next meeting. The Commission has not yet reviewed this rule and therefore there has not been a determination as to whether the rule will be approved. You may call this office to inquire concerning the staff recommendation.

In reviewing these rules, the staff determined that the following technical changes need to be made:

Please replace "must" with "shall" on lines 7, 9, 14, 16, 25, 27, 29, 32, and 34 (both places)

In (c), is this correct price for UL 971? I went online and saw a quote for \$203 - \$254. My source was <http://www.comm-2000.com/ProductDetail.aspx?UniqueKey=18563>

In (d), located by whom?

In (f), line 22, insert a comma after "construction"

On line 26, so that I understand – the manufacturer must replace it? Not the tank owner or operator? (Note the same question for lines 32-33)

In (g), line 29, please insert a comma after "pressure"

In Paragraphs (f) and (g), I take it the testing is by the owner or operator?

On lines 34-36, I note this is a similar concept to the last line in Rule .0903, but it uses different language. Why must these records be "readily" available, as opposed to simply available? Also, here the operator can have the records, but in .0903, only the owner can have them. Are these differences intentional?

Also, is the inspection by the Division staff per Rule 15A NCAC .0101(c)?

In the History Note, please correct the citations as "143-215.3(a)(15)" and "143B-282(a)(2)(h)"

Also in the History Note, please insert a semicolon after "2007"

Please retype the rule accordingly and resubmit it to our office at 1711 New Hope Church Road, Raleigh, North Carolina 27609.

Amanda J. Reeder
Commission Counsel
Date submitted to agency: April 30, 2015

1 15A NCAC 02N .0904 is amended as published in 29:09 NCR 1048-1051 as follows:

2
3 **15A NCAC 02N .0904 PIPING**

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

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

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

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

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

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

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

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

36
37 *History Note: Authority G.S. 143-215.3(A)(15); 143B-282(A)(2)(H);*

- 1 *Eff. November 1, 2007.*
- 2 *Amended Eff. June 1, 2015.*
- 3