

REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02U .0101

DEADLINE FOR RECEIPT: Friday, August 10, 2018

PLEASE NOTE: *This request may extend to 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 our office to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following technical changes be made:

I take it you need to keep this Rule to establish the purpose of this Subchapter?

It appears that Paragraph (a) states the purpose of the Rules, then Paragraphs (b), then (d) through (f) say what is not addressed by the Subchapter, and then Paragraph (g) addresses things covered by the Rule. Why not move (g) to become (b)?

In (a), line 10, what do you mean by "beneficial manner" and who determines this? Is this due to the statutory language in Chapter 143, Article 21? Or is this the term as defined in Rule .0103?

In (d), line 17, why is the term "Aquifer Storage and Recovery" capitalized?

In (g), line 23, please capitalize "Subchapter"

Where did the change to (g)(1) and addition of (g)(3) come from after publication? Was this in response to a public comment? And what do these terms mean? I note that the term "treatment works" is defined in G.S. 143-213(17). These new terms do not appear to be defined in the Rules or statute.

In the History Note, why are you citing to G.S. 143-215.1(f) specifically? What relevance does this portion of the statute have in this Rule? If the intent is to make it clear this Rule does not govern approved local reclaimed water systems, that exclusion would be better stated in the Rule text.

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: August 1, 2018

1 15A NCAC 02U .0101 is readopted with changes as published in 32:06 NCR 590 as follows:

2
3 **SUBCHAPTER 02U – RECLAIMED WATER**

4
5 **SECTION .0100 – GENERAL REQUIREMENTS**

6
7 **15A NCAC 02U .0101 PURPOSE**

8 (a) The rules in this Subchapter ~~shall~~ apply to reclaimed water systems. This includes the generation and utilization
9 of reclaimed water ~~tertiary treated wastewater effluent meeting the standards in Rule .0301 of this Subchapter,~~ used
10 in a beneficial manner and for the purpose of conservation of the State's water resources by reducing the use of a
11 ~~potable water~~ water, surface water, and groundwater resource (potable water, surface water, groundwater).

12 (b) The disposal of treated wastewater effluent that does not serve in place of the use of a water resource is ~~covered~~
13 governed by 15A NCAC 02T, Subchapter 02T of this Chapter.

14 (c) Reclaimed water utilization systems permitted pursuant to this Subchapter ~~do~~ shall not exempt any discharge to
15 waters of the State from meeting the permitting requirements established by the National Pollutant Discharge
16 Elimination System (NPDES) permitting program pursuant to G.S. 143-215.1 and 15A NCAC 02H .0100.

17 ~~(e)(d)~~ Any use of reclaimed water for Aquifer Storage and Recovery shall be in accordance with G.S. 143-214.2.

18 ~~(e) Requirements for closed loop recycle systems are provided in Section .1000 of Subchapter 02T of this Chapter.~~

19 (e) The reuse or return of wastewater from a permitted animal waste facility for waste flushing is governed by 15A
20 NCAC 02T .1300.

21 (f) The recycling of wastewater from groundwater remediation systems through an Injection Well or Infiltration
22 Gallery is governed by 15A NCAC 02T .1600.

23 ~~(g)~~ The rules in this subchapter set forth the requirements and procedures for application and issuance of permits
24 for the following reclaimed water systems:

25 (1) treatment works; generation systems;

26 (2) utilization systems;

27 (3) distribution systems;

28 ~~(3)(4)~~ bulk distribution programs; and

29 ~~(4)(5)~~ local program approval.

30
31 *History Note: Authority G.S. 143-215.1; 143-215.1(f); 143-215.3(a)(1); 143-355.5;*

32 *Eff. June 18, ~~2011~~ 2011;*

33 *Readopted Eff. September 1, 2018.*

REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02U .0102

DEADLINE FOR RECEIPT: Friday, August 10, 2018

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 our office to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following technical changes be made:

On line 5, you are replacing "treatment works" with "generation or distribution system" You made this change after publication. The term "treatment works" is used throughout G.S. 143, Article 21. What are these new systems?

Assuming you retain the language, on line 5, please insert a comma after "distribution"

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: August 1, 2018

1 15A NCAC 02U .0102 is readopted with changes as published in 32:06 NCR 590 as follows:

2
3 **15A NCAC 02U .0102 SCOPE**

4 The rules in this Subchapter shall apply to all persons proposing to construct, alter, extend, or operate any reclaimed
5 water treatment works generation, distribution or utilization system. The rules in this Section are general requirements
6 that apply to all program rules (~~found in individual sections~~) in this Subchapter.

7
8 *History Note: Authority G.S. 143-215.1; 143-215.3(a)(1);*

9 *Eff. June 18, ~~2011~~ 2011;*

10 *Readopted Eff. September 1, 2018.*

REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02U .0103

DEADLINE FOR RECEIPT: Friday, August 10, 2018

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 our office to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following technical changes be made:

On line 5, why not state "15A NCAC 02T .0103, and program-specific rules in this Subchapter. In addition, the following terms shall mean:" or "the following terms are defined as follows:"? I realize you are using similar language in Rule 02T .0103, and I understand if you wish to be consistent in these Rules.

Throughout this Rule, you refer to "necessary" as part of an activity or to meet the disposal, etc. Wherever the term is used, who determines necessity and based upon what?

In (1), please either retain "to which" on line 7 and delete the addition of "that" or state on line 7, "means the added use of water" or "means the addition of water..."

In (2), line 9, and (10), line 35, why are the terms "reuse" and "water" capitalized? Elsewhere in this Rule, only the first word in a defined term is capitalized.

Please be sure to put the terms in alphabetical order. Therefore, what is currently Item (5) should be Item (3).

In (5), line 21, define "repeatedly"

In (6), line 23, and (8), line 28, what is "direct contact"? Does your regulated public know?

In (6), line 24, and (8), line 29, intended by whom? The planter?

In (7), it appears from Rule .0402 that the term is "five-day side-stream detention unit" Please be consistent between these rules with the terminology and hyphenation.

In (9), line 30, should "associated with wetlands augmentation sites" be part of the defined term, such that it's in the quotation marks?

If not, then please state on line 30, "... benefit" when associated with ..."

On line 30, please replace "is" before "documented" with "means"

Amanda J. Reeder
Commission Counsel
Date submitted to agency: August 1, 2018

On lines 30-31, what is “documented evidence supporting continued maintenance”? Who creates this? What is contained in it?

On line 32, this cross-reference does not exist. Please update it. Do you mean Rule 15A NCAC 02T .0105(c)(10)?

On lines 33-34, since these rules are being published for readoption, please ensure that the cross-references are still correct.

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: August 1, 2018

1 15A NCAC 02U .0103 is readopted as published in 32:06 NCR 590-591 as follows:

2
3 **15A NCAC 02U .0103 DEFINITIONS**

4 The terms used in this Subchapter ~~shall have the meanings set forth~~ are defined in G.S. 143-212 and 143-213, and
5 ~~15A NCAC 02T .0103~~ 15A NCAC 02T .0103, in this Rule, and in program-specific rules in this Subchapter: ~~except~~
6 ~~as provided in this Rule as follows:~~

- 7 (1) "Beneficial manner" means the use of water as a necessary part of an activity or process ~~to which~~
8 ~~that~~ the water is being added.
- 9 (2) "Beneficial Reuse" means the utilization of reclaimed water in a beneficial manner and for the
10 purpose of conservation of the State's water resources by reducing the use of other potable water
11 water, surface water, and groundwater resources. ~~resources (potable water, surface water,~~
12 ~~groundwater).~~
- 13 (3) "Conjunctive system" means a system where the reclaimed water option is in addition to ~~not~~
14 ~~necessary to meet the wastewater disposal needs of the facility and where~~ other wastewater
15 utilization or disposal methods ~~(e.g., NPDES permit)~~ that are available to the facility at all ~~times.~~
16 times, and reclaimed water utilization is not necessary to meet the wastewater disposal needs of the
17 facility.
- 18 (4) "Dedicated system" means a system where the reclaimed water utilization is necessary to meet the
19 wastewater disposal needs of the facility and where other wastewater utilization or disposal methods
20 to accommodate the entire wastewater flow generated at the facility are not available.
- 21 (5) "Closed-loop recycle facility" means a system in which non-domestic wastewater is repeatedly
22 recycled back through the process in which the waste was generated.
- 23 ~~(4)(6)~~ (6) "Direct contact irrigation" means application methods that result in the direct contact of reclaimed
24 water on the portion of the crop intended for human consumption.
- 25 ~~(5)(7)~~ (7) "Five-day side stream detention pond" means a basin capable of holding five days worth of treatment
26 plant effluent based on the (permitted flow capacity) permitted flow capacity in the event that the
27 reclaimed water does not meet the required quality standards for the approved use.
- 28 ~~(6)(8)~~ (8) "Indirect contact irrigation" means application methods that ~~will~~ preclude direct contact of
29 reclaimed water on the portion of the crop intended for human consumption.
- 30 ~~(7)(9)~~ (9) "Net environmental benefit" associated with wetlands augmentation sites is documented evidence
31 supporting continued maintenance of natural conditions, and the protection of endangered species
32 as required in Rule .0105(c)(10) of this Section. Wetland augmentation systems shall provide
33 documentation of the protection of existing wetland uses in accordance with 15A NCAC 02B
34 .0201(f) and ~~.0231~~ .0231, and shall not result in net degradation of the wetland.
- 35 ~~(8)(10)~~ (10) "Reclaimed Water" means treated wastewater ~~effluent,~~ effluent meeting effluent standards
36 established pursuant to Rule .0301 of this Subchapter, and used for beneficial reuse.
- 37

- 1 *History Note:* *Authority G.S. 143-213; 143-215.3(a)(1);*
- 2 *Eff. June 18, ~~2011~~, 2011;*
- 3 *Readopted Eff. September 1, 2018.*

1 15A NCAC 02U .0104 is repealed through readoption as published 32:06 NCR 591 as follows:

2

3 **15A NCAC 02U .0104 ACTIVITIES WHICH REQUIRE A PERMIT**

4

5 *History Note: Authority G.S. 143-215.1; 143-215.3(a)(1);*

6 *Eff. June 18, ~~2011~~ 2011;*

7 *Repealed Eff. September 1, 2018.*

REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02U .0105

DEADLINE FOR RECEIPT: Friday, August 10, 2018

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 our office to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following technical changes be made:

Consider stating "General requirements for permit applications and conditions shall be..." or "General requirements for the permitting process shall be..."

In the History Note, do you want to cite to G.S. 143-215.3(a)(1), rather to only (a), to be consistent with the other rules?

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: August 1, 2018

1 15A NCAC 02U .0105 is readopted as published in 32:06 NCR 591 as follows:

2
3 **15A NCAC 02U .0105 GENERAL REQUIREMENTS**

4 General requirements shall be in accordance with 15A NCAC 02T .0105.

5
6 *History Note: Authority G.S. 143-215.1; 143-215.3(a);*

7 *Eff. June 18, ~~2011~~, 2011;*

8 *Readopted Eff. September 1, 2018.*

REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02U .0106

DEADLINE FOR RECEIPT: Friday, August 10, 2018

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 our office to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following technical changes be made:

In the History Note, line 6, please put the citations in numerical order.

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: August 1, 2018

1 15A NCAC 02U .0106 is readopted as published in 32:06 NCR 591 as follows:

2
3 **15A NCAC 02U .0106 SUBMISSION OF PERMIT APPLICATIONS**

4 Submission of permit applications shall be in accordance with 15A NCAC 02T .0106.

5
6 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.1;*

7 *Eff. June 18, ~~2011~~2011;*

8 *Readopted Eff. September 1, 2018.*

1 15A NCAC 02U .0107 is readopted as published in 32:06 NCR 591 as follows:

2
3 **15A NCAC 02U .0107 STAFF REVIEW AND PERMIT PREPARATION**

4 Staff review and permit preparation shall be in accordance with 15A NCAC 02T .0107.

5
6 *History Note: Authority G.S. 143-215.1(b); 143-215.1(d); 143-215.3(a)(1); 143-215.3(a)(4);*

7 *Eff. June 18, ~~2011~~2011;*

8 *Readopted Eff. September 1, 2018*

1 15A NCAC 02U .0108 is readopted as published in 32:06 NCR 591 as follows:

2
3 **15A NCAC 02U .0108 FINAL ACTION ON PERMIT APPLICATIONS TO THE DIVISION**

4 Final action on permit applications to the Division shall be in accordance with 15A NCAC 02T .0108.

5
6 *History Note: Authority G.S. 143-215.1(a); 143-215.1(b); 143-215.1(d); 143-215.3(a)(1);*

7 *Eff. June 18, ~~2011~~2011;*

8 *Readopted Eff. September 1, 2018.*

REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02U .0109

DEADLINE FOR RECEIPT: Friday, August 10, 2018

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 our office to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following technical changes be made:

So that I am clear – since the language in the Code simply states what Rule 02T .0109 is spelling out, you decided to reference that Rule rather than restate it?

If so, please be sure that the cross-references in Rule 02T .0109 are correct for the renewal requests made in 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: August 1, 2018

1 15A NCAC 02U .0109 is readopted with changes as published in 32:06 NCR 591 as follows:

2
3 **15A NCAC 02U .0109 PERMIT RENEWALS**

4 ~~Requests for permit renewals shall be submitted to the Director at least 180 days prior to expiration unless the permit~~
5 ~~has been revoked by the Director in accordance with Rule .0110 of this Section or a request has been made to~~
6 ~~rescind the permit. Renewal requests shall be made in accordance with Rule .0105 and Rule .0106 of this~~
7 ~~Section.~~ Permit renewals shall be in accordance with 15A NCAC 02T .0109.

8
9 *History Note: Authority G.S. 143-215.3(a)(1);*

10 *Eff. June 18, ~~2011~~, 2011;*

11 *Readopted Eff. September 1, 2018.*

REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02U .0110

DEADLINE FOR RECEIPT: Friday, August 10, 2018

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 our office to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following technical changes be made:

In the History Note, why are you citing to 143-215.1(b)(2)? Isn't (b)(4)(c) more appropriate?

Assuming you need to retain the citation, please remove the period after "(2.)" so it reads "143B-215.1(b)(2);"

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: August 1, 2018

1 15A NCAC 02U .0110 is readopted as published in 32:06 NCR 591 as follows:

2
3 **15A NCAC 02U .0110 MODIFICATION AND REVOCATION OF PERMITS**

4 Modification and revocation of permits shall be in accordance with 15A NCAC 02T .0110.

5
6 *History Note: Authority G.S. 143-215.1(b)(2.); 143-215.3(a)(1);*

7 *Eff. June 18, ~~2011~~, 2011;*

8 *Readopted Eff. September 1, 2018.*

REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02U .0111

DEADLINE FOR RECEIPT: Friday, August 10, 2018

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 our office to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following technical changes be made:

On line 4, you have "are established" rather than "in accordance with" language you have in other rules. Is this on purpose?

In the History Note, line 6, why do you have a citation to G.S. 143-215.10C?

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: August 1, 2018

1 15A NCAC 02U .0111 is readopted as published in 32:06 NCR 591 as follows:

2
3 **15A NCAC 02U .0111 CONDITIONS FOR ISSUING GENERAL PERMITS**

4 Conditions for issuing general permits are established in 15A NCAC 02T .0111.

5
6 *History Note: Authority G.S. 143-215.1; 143-215.3(a)(1); 143-215.10C;*

7 *Eff. June 18, ~~2011~~, 2011;*

8 *Readopted Eff. September 1, 2018.*

1 15A NCAC 02U .0112 is readopted as published in 32:06 NCR 591 as follows:

2
3 **15A NCAC 02U .0112 DELEGATION OF AUTHORITY**

4 Delegation of authority shall be in accordance with 15A NCAC 02T .0112.

5
6 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.3(a)(4);*

7 *Eff. June 18, ~~2011~~, 2011;*

8 *Readopted Eff. September 1, 2018.*

REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02U .0113

DEADLINE FOR RECEIPT: Friday, August 10, 2018

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 our office to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following technical changes be made:

In (a), line 4, are these activities related to the "closed-loop recycle facilities" as the term is defined in Rule .0103?

In (a), this a long sentence. Consider ending the sentence after the citation on line 5. Then state "It shall not be necessary for the Division..."

On line 6, insert a comma after "systems"

On line 8, what do you mean by "required for the specific system"? Do you mean any criteria set forth in (a)(1) through (18) that apply to the system are met?

In (a)(2), line 13, who determines whether an alternative is "viable" and based upon what?

On line 13, what do you mean by "reasonable" and reasonable to whom?

In (a)(3), line 15, is "de minimus" defined anywhere in your rules or law?

On line 17, is the de minimus runoff approved by the permit? If not, I'm not sure I know where the verb in this sentence is, or there is one.

In (a)(5), line 24, will your regulated public know what "kind" means now that you are taking out the descriptor?

In (a)(6), please be aware that Rules in 02H were published and are being considered for readoption, so ensure that the cross-reference is still correct.

In (a)(8), (12), (14), (15), and (18), consider breaking these down further. For example:

(8) Irrigation of residential reclaimed water system:

(A) meeting the requirements of Rules .0301, .0401;.... Subchapter and G.S. 89G;

(B) approved by the ... department; and

(C) installed... 89G.

Amanda J. Reeder
Commission Counsel

Date submitted to agency: August 1, 2018

On line 34, please replace “Chapter 89G of the General Statutes” with “G.S. 89G.” [See Rule 26 NCAC 02C .0109(b)]

Also on line 34, I take it your reference to 89G includes those who are exempt from that Chapter are also going to be exempt here?

On line 36, who determines what features are necessary?

In (a)(9), Page 2, line 4, so that I’m clear – is the term “above ground” one word in your terminology?

Are the changes to (a)(9) to implement SL 2011-48, Section 2(b)? If so, then it appears that pursuant to Section 2(c) of that session law, this amendment is not subject to RRC review and the rule is subject to legislative review. Please change the Submission for Permanent Rule form to reflect the legislative review.

In (a)(10), since these rules are not within your authority, if you are seeking to enforce them, please incorporate them by reference using G.S. 150B-21.6. If this is simply to clarify that the permit under this set of rules is part of this Subparagraph, it’s fine as written.

In (a)(11), I believe the rules now belong to the Oil and Gas Commission. You may want to simply reference the rules, rather than the rulemaking body, as you did in (a)(10).

In Item (12), line 14, so that I’m clear – these flushing systems are not addressed by Item (6)?

On line 16, do you intend to cite to G.S. 89G?

On line 17, G.S. 89, which addressed Engineering and Land Surveying, was recodified to G.S. 89C. Please review and insert the correct cross-reference.

In (a)(13), line 18, anticipated by whom?

On line 19, insert a comma after “wastewater”

On line 20, you used the term “cover” rather than “roof” in (a)(2). Did you intend to use a different term here? Please note the same question for (a)(15), line 28.

In (a)(14), line 21, please insert a comma after “equipment”

Line 22, what is “sufficient”? Is it to “contain runoff from a 24-hour, 25-year storm event plus one foot freeboard”? If so, do you need “sufficient”?

Line 23, insert a comma after “freeboard”

Line 25, what is this “appropriate” office and how is it and the contact information known to your regulated public?

On line 26, replace “the above criteria” with “this Subparagraph” or “these criteria”

In (a)(14), line 28, insert a comma after “steel”

Amanda J. Reeder
Commission Counsel
Date submitted to agency: August 1, 2018

On line 29, what are “direct or indirect precipitation inputs”

On lines 29-30, what is a “spill control plan”?

In (a)(18), line 37, what is “gpd”? Is it gallons per day? Is this known to your regulated public? And should the acronym be capitalized as GPD?

On Page 3, line 4, what is the “required criteria” This Subparagraph? If so, please use whatever language you use in (a)(14).

What is the purpose of Paragraph (b)?

Consider making Paragraph (b) two sentences, ending the first sentence after “standards.” On line 6. Then state “Any violation shall be a violation of a condition of a permit.”

In (c), line 9, is this in accordance with Subparagraph (a)(2) of Rule 02B .0506?

In (d), line 11, what are the other “Permitted By Regulation rules” and why is this term capitalized?

What statutory authority are you relying upon for lines 12-13?

In Paragraph (e), what is your statutory authority for the Director to make this determination?

On line 16, who will be projecting this? The Department or the individual?

On line 17, insert a comma after “Rule”

Also on line 17, will the guidance for compliance history be Rule .0120 of this Section?

In the History Note, why are you citing to G.S. 130A-300? Is it because of Paragraph (b)?

In the History Note, you cite to G.S. 143-215.3(d), which states:

§ 143-215.3. General powers of Commission and Department; auxiliary powers.

(d) Relations with Other States. - The Commission or the Department may, with the approval of the Governor, consult with qualified representatives of adjoining states relative to the establishment of regulations for the protection of waters and air of mutual interest, but the approval of the General Assembly shall be required to make any regulations binding.

Please confirm you followed the procedure set forth in the statute.

Also, please separate the citations to “143-215.3(a); 143-215.3(d);”

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: August 1, 2018

1 15A NCAC 02U .0113 is readopted with changes as published in 32:06 NCR 591-593 as follows:

2
3 **15A NCAC 02U .0113 PERMITTING BY REGULATION (~~SEE S.L. 2011-48~~)**

4 (a) The following utilizations of reclaimed water and closed-loop recycle activities ~~are~~ shall be deemed to be permitted
5 pursuant to ~~G.S. 143-215.1(b)~~ G.S. 143-215.1(b), and it is not necessary for the Division to issue individual permits or
6 coverage under a general permit for construction or operation of the following utilization systems provided the system
7 does not result in any violations of surface water or groundwater standards, there is no unpermitted direct discharge
8 to surface waters, and all criteria required for the specific system ~~is~~ are met:

- 9 (1) Discharges to the land surface from flushing and hydrostatic testing water associated with utility
10 distribution systems, new ~~sewer extensions~~ sewer extensions, or new reclaimed water distribution
11 lines;
- 12 (2) Overflow from elevated and covered or enclosed reclaimed water storage facilities ~~where~~ if no
13 viable alternative exists and all ~~possible~~ reasonable measures are taken to reduce the risk of
14 overflow;
- 15 (3) Any de minimus runoff from reclaimed water used during fire fighting or extinguishing, dust
16 control, soil compaction for construction purposes, street sweeping, overspray on yard inlets,
17 overspray on golf cart paths, or vehicle washing provided the use is approved in a permit issued by
18 the Division;
- 19 (4) Incidental discharge to a municipal separate storm sewer system (MS4) that occurs as a result of
20 reclaimed water utilization activities provided ~~the use~~ such activity is approved in a reclaimed water
21 utilization permit issued by the Division, and the discharge does not violate water quality standards.
22 This does not exempt the reclaimed water user from complying with any applicable local ordinances
23 that may prohibit such discharges;
- 24 (5) Rehabilitation, repair, or replacement of reclaimed water lines in kind (~~i.e., size~~) with the same
25 horizontal and vertical alignment;
- 26 (6) In accordance with 15A NCAC 02H .0106(f)(5), ~~flushing~~ flushing, (~~including air release valve~~
27 ~~discharge~~) including air release valve discharge, and hydrostatic testing water discharges associated
28 with reclaimed water distribution systems ~~provided that~~ if no water quality standards are violated;
- 29 (7) Utilization of reclaimed water received from a reclaimed water bulk distribution program permitted
30 under Rule .0601 of this Subchapter;
- 31 (8) Irrigation of residential lots or commercial (~~non-residential~~) application areas less than ~~one~~ two
32 acres in size that are supplied with reclaimed water as part of a conjunctive ~~use~~ reclaimed water
33 system meeting the requirements of Rules .0301, .0401, .0403, .0501, and .0701 of this Subchapter;
34 Chapter 89G of the General Statutes; approved by the local building inspection department; and
35 installed by a North Carolina Licensed Irrigation Contractor pursuant to G.S. 89G. A scaled site
36 map showing the location of the reclaimed water irrigation system and all features necessary to show

- 1 compliance with applicable setbacks in Rule .0701 of this Subchapter shall be submitted to the
2 reclaimed water provider;
- 3 (9) Irrigation of agricultural ~~crops~~ crops, including irrigation of ornamental crops by field nurseries and
4 aboveground container nurseries, supplied with reclaimed water as part of a conjunctive use
5 reclaimed water system meeting the requirements of this Subchapter and approved by the reclaimed
6 water provider;
- 7 (10) Drip irrigation sites supplied with reclaimed water as part of a conjunctive use reclaimed water
8 system generated from an onsite wastewater treatment facility meeting the criteria of this Subchapter
9 and where the conjunctive system has been approved by the Department of Health and Human
10 Services and is permitted under 18A .1900; and
- 11 (11) Reuse of produced waters and flowback waters from oil and gas wells regulated by Article 27 of
12 G.S. 113 for reuse in accordance with water and waste management plans approved pursuant to
13 rules of the Mining and Energy Commission as set forth in 15A NCAC 05H. 15A NCAC 05H;
- 14 (12) Toilet and urinal flushing systems supplied by reclaimed water as part of a conjunctive reclaimed
15 water system meeting the applicable requirements of Rules .0301, .0401, .0403, .0501, and .0701 of
16 this Subchapter; Chapter 89G of the General Statutes; approved by the local building inspection
17 department; and installed by a North Carolina Licensed Plumbing Contractor pursuant to G.S. 89;
- 18 (13) Return of wastewater within an industrial or commercial process where there is no anticipated
19 release of wastewater provided the facility develops and maintains a spill control plan in the event
20 of a release, no earthen basins are used, and the system is contained and under roof;
- 21 (14) Recycling of rinse water at concrete mixing facilities for concrete mix removal from equipment
22 provided the wastewater is contained within concrete structures, there is sufficient storage capacity
23 to contain the runoff from a 24-hour, 25-year storm event plus one foot freeboard and the facility
24 develops and maintains a spill control plan in the event of a wastewater release. The facility shall
25 notify the appropriate Division regional office in writing noting the owner, location, and that the
26 design complies with the above criteria;
- 27 (15) Recycling of wash and rinse water at vehicle wash facilities provided the wastewater is contained
28 within concrete, steel or synthetic structures, all vehicle washing is conducted under roof or there
29 are no direct or indirect precipitation inputs, and the facility develops and maintains a spill control
30 plan in the event of a wastewater release;
- 31 (16) The reuse or return of wastewater within the treatment works of a permitted wastewater treatment
32 system;
- 33 (17) Recycle systems that are part of a stormwater management systems permitted under 15A NCAC
34 02H .1000, and the wastewater is recycled back through the process in which the waste was
35 generated; and
- 36 (18) Recycling of rinse water for separating gems from gravel, sand, or rock in a flume at commercial
37 gem mine facilities with total system flow of less than 100,000 gpd, provided the wastewater is

1 contained within storage structures, no biological or chemical additives are used, and the facility
2 develops and maintains a spill control plan in the event of a wastewater release. The facility shall
3 notify the appropriate Division regional office in writing noting the owner, location, and that the
4 design complies with the required criteria.

5 (b) Nothing in this Rule shall be deemed to allow the violation of any ~~assigned~~ surface water, groundwater, or air
6 quality standards, and in addition any such violation is a violation of a condition of a permit.

7 (c) The reclaimed water user shall report any violation of this Rule or any discharge to surface waters from the
8 utilization systems listed in Paragraph (a) of this ~~Rule.~~ Rule to the Division and in accordance with 15A NCAC 02B
9 .0506.

10 (d) Utilization systems deemed permitted under this Subchapter shall remain deemed permitted, notwithstanding any
11 violations of surface water or groundwater standards or violations of this Rule or other Permitted By Regulation rules
12 in this Subchapter, until such time as the Director determines that they ~~should~~ shall not be deemed permitted in
13 accordance with the criteria established in this Rule.

14 (e) The Director may determine that a utilization system ~~should~~ shall not be deemed to be permitted in accordance
15 with this Rule and require the utilization system to obtain an individual permit or a certificate of coverage under a
16 general permit. This determination shall be made based on existing or projected environmental impacts, compliance
17 with the provisions of this Rule and the compliance history of the facility owner.

18
19 *History Note:* *Authority G.S. 130A-300; 143-215.1(a)(1); 143-215.1(b)(4)(e); 143-215.3(a),(d);*
20 *Eff. June 18, 2011 (See S.L. 2011-48);*
21 *Amended Eff. March 19, ~~2015~~2015;*
22 *Readopted Eff. September 1, 2018.*

1 15A NCAC 02U .0114 is readopted as published in 32:06 NCR 593 as follows:

2
3 **15A NCAC 02U .0114 WASTEWATER DESIGN FLOW RATES**

4 Wastewater design flow rates shall be determined pursuant to 15A NCAC 02T .0114.

5
6 *History Note: Authority G.S. 143-215.1; 143-215.3(a)(1);*

7 *Eff. June 18, ~~2011~~, 2011;*

8 *Readopted Eff. September 1, 2018.*

REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02U .0115

DEADLINE FOR RECEIPT: Friday, August 10, 2018

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 our office to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following technical changes be made:

On line 4, based upon the language in Rule 02T .0115, should "completed" be replaced with "executed"?

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: August 1, 2018

1 15A NCAC 02U .0115 is readopted as published in 32:06 NCR 593 as follows:

2
3 **15A NCAC 02U .0115 OPERATIONAL AGREEMENTS**

4 Operational agreements shall be completed pursuant to 15A NCAC 02T .0115.

5
6 *History Note: Authority G.S. 143-215.1(d1);*

7 *Eff. June 18, ~~2011~~, 2011;*

8 *Readopted Eff. September 1, 2018.*

1 15A NCAC 02U .0116 is readopted as published in 32:06 NCR 593 as follows:

2
3 **15A NCAC 02U .0116 CERTIFICATION OF COMPLETION**

4 Certification of completion shall be completed pursuant to 15A NCAC 02T .0116.

5
6 *History Note: Authority G.S. 143-215.1;*

7 *Eff. June 18, ~~2011~~, 2011;*

8 *Readopted Eff. September 1, 2018.*

1 15A NCAC 02U .0117 is readopted as published in 32:06 NCR 593 as follows:

2
3 **15A NCAC 02U .0117 TREATMENT FACILITY OPERATION AND MAINTENANCE**

4 Treatment facility operation and maintenance shall be completed pursuant to 15A NCAC 02T .0117.

5
6 *History Note: Authority G.S. 143-215.3;*

7 *Eff. June 18, ~~2011~~, 2011;*

8 *Readopted Eff. September 1, 2018.*

REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02U .0118

DEADLINE FOR RECEIPT: Friday, August 10, 2018

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 our office to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following technical changes be made:

What section of G.S. 143-215.3 are you relying upon for authority for this Rule? Is it (a)(2)?

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: August 1, 2018

1 15A NCAC 02U .0118 is adopted as published in 32:06 NCR 593 as follows:

2
3 **15A NCAC 02U .0118 DEMONSTRATION OF FUTURE WASTEWATER TREATMENT CAPACITIES**

4 Demonstration of future wastewater treatment capacities shall be completed pursuant to 15A NCAC 02T .0118.

5
6 *History Note: Authority G.S. 143-215.3;*

7 *Eff. September 1, 2018.*

1 15A NCAC 02U .0120 is readopted as published in 32:06 NCR 593 as follows:

2
3 **15A NCAC 02U .0120 HISTORICAL CONSIDERATION IN PERMIT APPROVAL**

4 Historical consideration in permit approval shall be in accordance with 15A NCAC 02T .0120.

5
6 *History Note: Authority G.S. 143-215.1(b); 143-215.3(a);*

7 *Eff. June 18, ~~2011~~, 2011;*

8 *Readopted Eff. September 1, 2018.*

REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02U .0201

DEADLINE FOR RECEIPT: Friday, August 10, 2018

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 our office to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following technical changes be made:

In (a), line 6, by “expanding” do you mean “alter, extend, or change” in G.S. 143-215.1(a)(3)?

In (b), line 8, what is a “soil evaluation”? What is contained in it?

Throughout this Rule, why did you capitalize “Applicant”?

What is the purpose of the notes on lines 13-15, 28-32, and Page 2, 11-13? Do you need to retain them?

Do you have copies of the letters for the public to review?

In (c)(1), line 18, what is the “entire system” Does this include the facilities and equipment named on lines 18-19?

On line 20, what is “directly” and “complete process”?

Line 20, who will determine what is “necessary”?

Assuming you need to retain the note on lines 28-32, can you replace the full name of the Board on line 30 with “the Board”?

In (d), lines 34-36, so that I’m clear, the applicant has to provide site plans or maps for 1) facilities and 2) reclaimed water?

On line 37, what do you mean by “orientation and relationship of facility components”? Does your regulated public know?

On line 37, consider inserting a comma after “components”

In (d)(1), Page 2, line 3, it seems you are missing language before “soil mapping” Should it read “... areas, with soil mapping”

And what does this language mean? What are “utilization sites”?

Amanda J. Reeder
Commission Counsel

Date submitted to agency: August 1, 2018

In (d)(3), line 6, who determines “to the extent needed” – the applicant?

In (d)(5), this language was added after publication. Was this a result of public comment? And what does this mean?

If you need to retain the note on lines 11-13, consider moving “on maps” on line 13 to behind “features” on line 12.

In (e)(1), line 15, consider removing the parenthesis. “ownership, such as ...”

Please insert a comma after “deed”

In (e)(4), what do lines 22-23 mean? I take it your regulated public knows?

In (f), line 25, what is a “Certificate of Public Convenience and Necessity”? Does your regulated public know, and how to get it from the Utilities Commission?

On line 26, consider deleting “has”

In (g), line 28, what is this “chemical analysis”? I take it that it includes (g)(1) through (20)? But what is the analysis part? I take it your regulated public knows?

On line 28, what is a “toxic pollutant”? Does your regulated public know?

On line 29, what is “an intermediate or final product or byproduct”?

I suggest you end the sentence after “byproduct” on line 29, the beginning a new sentence. “The Director may...”

What is your authority to state that the Director may waive this requirement? Are you relying upon delegation in G.S. 143-215.3(a)(4)?

And how does the applicant demonstrate the burden, and how it is determined to be unduly burdensome?

On line 31, what is “adequate”?

On line 32, what is the “provided information”? The request to not perform the analysis or the results of the analysis?

And how will notice of this requirement be sent?

On line 33, is it entirely up to the new facility whether or not to send the source water?

On line 34, is the “analysis” the “chemical analysis” on line 28?

In (g)(1) through (20), is there a reason the terms are capitalized? Is that how they are known by your regulated public?

Amanda J. Reeder
Commission Counsel
Date submitted to agency: August 1, 2018

In (g)(4) through (6), Page 3, I am simply asking – does these make up the total nitrogen contemplated in G.S. 143-215.1(c1)?

In (h), line 19, what is a “project evaluation”

On line 20, what is an “agronomic management plan”?

On line 21, please insert a comma after “minerals”?

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

1 15A NCAC 02U .0201 is readopted with changes as published in 32:06 NCR 593-594 as follows:

2
3 **SECTION .0200 - APPLICATION REQUIREMENTS**
4

5 **15A NCAC 02U .0201 APPLICATION SUBMITTAL —~~CONJUNCTIVE SYSTEMS~~**

6 (a) The requirements in this Rule shall apply to all new and expanding ~~conjunctive~~ reclaimed water and closed-loop
7 recycle facilities, as applicable, facilities.

8 (b) A soil evaluation of the utilization site where the reclaimed water is applied to the land surface or otherwise used
9 in a ground absorption manner shall be provided to the Division by the Applicant, ~~applicant~~. Evaluations shall include
10 recommended loading rates of liquids, solids, and other constituents. For systems that utilize reclaimed water through
11 irrigation, the evaluation shall also include recommended maximum irrigation precipitation rates. If required by G.S.
12 89F, a soil scientist shall prepare this evaluation.

13 [Note: The North Carolina Board for Licensing of Soil Scientists has determined, via letter dated December 1, 2005,
14 that preparation of soils reports pursuant to this Paragraph constitutes practicing soil science ~~under~~ pursuant to G.S.
15 89F.]

16 (c) Engineering design documents. If required by G.S. 89C, a professional engineer shall prepare engineering design
17 documents. The following documents shall be provided to the Division by the Applicant, ~~applicant~~:

- 18 (1) engineering plans for the entire system, including treatment, storage, application, and utilization
19 facilities and equipment except those previously permitted unless those previously permitted are
20 directly tied into the new units or are ~~critical~~ necessary to the understanding of the complete process;
- 21 (2) specifications describing materials to be used, methods of construction, and means for ensuring
22 quality and integrity of the finished ~~product~~ product, including leakage testing; and
- 23 (3) engineering ~~calculations~~ calculations, including hydraulic and pollutant loading for each treatment
24 unit, treatment unit sizing criteria, hydraulic profile of the treatment system, total dynamic head and
25 system curve analysis for each pump, buoyancy calculations, and irrigation ~~design-design; and~~
- 26 (4) closed-loop facilities utilizing storage ponds shall provide a water balance calculation documenting
27 all inputs and losses.

28 [Note: The North Carolina Board of Examiners for Engineers and Surveyors has determined, via letter dated December
29 1, 2005, that preparation of engineering design documents pursuant to this Paragraph constitutes practicing
30 engineering under G.S. 89C. In addition, the North Carolina Board of Examiners for Engineers and Surveyors has
31 determined that design of residential reclaimed irrigations systems owned by the property owner does not constitute
32 engineering ~~under~~ pursuant to G.S. 89C.]

33 (d) Site plans. If required by G.S. 89C, a professional land surveyor shall provide location information on boundaries
34 and physical features not under the purview of other licensed professions. The Applicant, ~~applicant~~ shall provide site
35 plans or maps for treatment and storage facilities and where the reclaimed water is applied to the land surface or
36 otherwise used in a ground absorption manner, except where reclaimed water is utilized for irrigation to single-family
37 residential lots, showing the location, orientation and relationship of facility components including:

- (1) a scaled map of the ~~site~~ site, with topographic contour intervals not exceeding 10 feet or 25 percent of total site relief and showing all facility-related structures and fences within 500 feet of the treatment, storage, and utilization ~~areas; areas, soil mapping units shown on all utilizations sites;~~
- (2) for land application sites and other ground absorption uses, the site map shall include topography; and
- (3) to the extent needed to determine compliance with setbacks, the location of all features included in Rule .0701 of this ~~Subchapter.~~ Subchapter; and
- (4) setbacks as required by Rule .0701 of this Subchapter and delineation of the review and compliance boundaries; and
- (5) site property boundaries within 500 feet of all waste treatment, storage, and utilization sites.

[Note: The North Carolina Board of Examiners for Engineers and Surveyors has determined, via letter dated December 1, 2005, that locating boundaries and physical features, not under the purview of other licensed professions, on maps pursuant to this Paragraph constitutes practicing surveying ~~under~~ pursuant to G.S. 89C.]

(e) The ~~Applicant~~ applicant shall provide property ownership documentation to the Division consisting of:

- (1) legal documentation of ownership (e.g., contract, deed or article of incorporation);
- (2) ~~written notarized intent to purchase agreement~~ an agreement of an intent to purchase the property that is written, notarized, and signed by both parties, accompanied by a plat or survey map;
- (3) an easement running with the land indicating the intended use of the property and meeting the condition of 15A NCAC 02L .0107(f); or
- (4) ~~written notarized lease agreement~~ an agreement to lease the property that is written, notarized, and signed by both parties, indicating the intended use of the property, ~~as well as~~ accompanied by a plat or survey map. When this Subparagraph is utilized to document property ownership, groundwater standards must be met across the entire site and a compliance boundary need not be provided. Lease agreements shall adhere to the requirements of 15A NCAC 02L .0107.

(f) Public utilities shall submit a Certificate of Public Convenience and Necessity or a letter from the NC Utilities Commission to the Division stating that it has received a franchise ~~application has been received.~~ application.

(g) ~~For reclaimed or recycled water generated from industrial wastewater, the~~ The Applicant ~~applicant~~ shall provide a ~~complete~~ chemical analysis of the typical reclaimed water to be ~~utilized~~ utilized, and a listing of any toxic pollutant that the Applicant currently uses or manufactures as an intermediate or final product or byproduct (the Director may waive or modify this requirement for any Applicant if the Applicant demonstrates that it would be unduly burdensome to identify each toxic pollutant and the Director has adequate information to issue the permit). ~~for industrial waste.~~ The Director may determine that subsequent toxicity testing is required based on the provided information. New facilities may provide chemical analysis of the source water along with predictive calculations for chemical characteristics prior to utilization. The analysis shall include:

- (1) Total Organic Carbon;
- (2) 5-day Biochemical Oxygen Demand (BOD5);
- (3) Chemical Oxygen Demand (COD);

- (4) Nitrate Nitrogen (NO₃-N);
- (5) Ammonia Nitrogen (NH₃-N);
- (6) Total Kjeldahl Nitrogen (TKN);
- (7) pH;
- (8) Chloride;
- (9) Total Phosphorus;
- (10) Phenol;
- (11) Total Volatile Organic Compounds;
- (12) Escherichia coli (E.coli) or Fecal Coliform;
- (13) Coliphage (Type 2 reclaimed water only);
- (14) Clostridium perfringens (Type 2 reclaimed water only);
- (15) Calcium;
- (16) Sodium;
- (17) Magnesium;
- (18) Sodium Adsorption Ratio (SAR);
- (19) Total Trihalomethanes; and
- ~~(20) Toxicity Test Parameters; and~~
- ~~(21)~~(20) Total Dissolved Solids.

(h) For irrigation sites, the Applicant ~~applicant~~ shall provide to the Division a project evaluation and a receiver site agronomic management plan and recommendations concerning cover crops and their ability to accept the proposed application rates of liquid, solids, minerals and other constituents of the wastewater.

*History Note: Authority G.S. 143-215.1; 143-215.3(a);
Eff. June 18, ~~2011~~2011;
Readopted Eff. September 1, 2018.*

REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02U .0202

DEADLINE FOR RECEIPT: Friday, August 10, 2018

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 our office to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following technical changes be made:

In (a), line 5, do not capitalize "Application Submittal Requirements"

On line 6, I take it your regulated public knows what an "expanding" facility is?

On lines 6 and 7, you have "facilities" twice, so the sentence reads "... reclaimed water facilities, facilities." Please delete the "facilities," on line 6.

In (b), lines 8 and Page 2, line 13, so that I'm clear – the name is "soils report"? "Soil" is plural?

Also so that I'm clear, the report includes an evaluation, as required on lines 8-10? What is done to complete the evaluation?

Throughout this Rule, why are you capitalizing the term "applicant"?

In (b)(1), line 12, should there be a "the" before "bedrock"?

Also on line 12, please insert a comma after "bedrock"

On line 13, what are "diagnostic horizons"? Does this have anything to do with the "restrictive horizons" on lines 19 and 24? Does your regulated public know what these terms mean and how to determine them?

In (b)(1)(G), line 20, should this also begin with "the"

On line 20, what is "depth of evidence" as it relates to a high water table?

On line 21, who determines what are "necessary" and "proper"?

In (b)(2), line 22, please insert a comma after "constituents"

On line 23, amendments to what?

On line 24, how is "most restrictive" determined and by whom?

Amanda J. Reeder
Commission Counsel

Date submitted to agency: August 1, 2018

On line 25, I take it that “maximum irrigation precipitation rates” are known to your regulated public?

In (b)(3), line 27, you state that a field-delineated soil map that delineates soil mapping units is required. That wording seems repetitive. Is this how it would be typically phrased?

On line 29, is it only one dominant type, so that it should be “the” dominant? Or can there be multiple dominant series, such that “name and family” should be plural?

Also, I take it “dominant” will be determined by the person completing the report?

In (b)(4), lines 31 and 32, why is the term “Standard Soil Fertility Analysis” capitalized? And what is it? I take it your regulated public knows what it is and how to find this standard?

In (4)(A) through (N), is there a reason the terms are capitalized? Is that how they are known by your regulated public?

Regarding the notes on Page 2, lines 12-14 and Page 4, lines 6-10, what are their purpose now and do you need to retain them?

In (c), Page 3, line 15, I suggest stating “wastewater that can ...”

Also on line 15, what do you mean by “demonstrate”? To whom?

On line 15, what is “quality similar”? Is this known to your regulated public?

In (c)(1), line 24, what literature is this? Is this known to your regulated public?

Please begin (c)(7), Page 3, line 34, and (c)(8), Page 4, line 1, with “the”

In (c)(8), line 1, is the term “flow regime” known to your regulated public?

In (d), Page 5, line 11, I note that the name of this Plan is capitalized in Rule .0802. Please be consistent with the capitalization here.

In (e), line 14, what is a “water balance”? And will this be the thing that determines the storage? Will it state what the effluent storage standard will be?

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: August 1, 2018

1 15A NCAC 02U .0202 is readopted as published in 32:06 NCR 594-596 as follows:

2
3 **15A NCAC 02U .0202 APPLICATION SUBMITTAL FOR —~~NON-CONJUNCTIVE~~ DEDICATED**
4 **RECLAIMED WATER SYSTEMS**

5 (a) ~~In addition to the Application Submittal Requirements established Rule .0201 of this Section, the~~ The requirements
6 in this Rule shall apply to all new and expanding ~~non-conjunctive dedicated reclaimed water facilities, as applicable.~~
7 facilities.

8 (b) Soils ~~Report-report.~~ Report-report. A soil evaluation of the utilization site shall be provided to the Division by the Applicant.
9 ~~applicant.~~ If required by G.S. 89F, a soil scientist shall prepare this evaluation. This evaluation shall be presented in
10 a report that includes the following:

11 (1) ~~A field~~ Field description of the soil profile, based on examinations of excavation pits and auger
12 borings, within seven feet of land surface or to bedrock describing the following parameters by
13 individual diagnostic horizons:

14 (A) the thickness of the horizon;

15 (B) the texture;

16 (C) the color and other diagnostic features;

17 (D) the structure;

18 (E) the internal drainage;

19 (F) the depth, thickness, and type of restrictive ~~horizon(s); horizons;~~ horizons; and

20 (G) presence or absence and depth of evidence of any seasonal high water ~~table (SHWT); table;~~
21 Applicants shall dig pits when necessary for proper evaluation of the soils at the site;

22 (2) Recommendations concerning loading rates of liquids, solids, other wastewater constituents and
23 ~~amendments; amendments.~~ Annual annual hydraulic loading rates shall be based on in-situ
24 measurement of saturated hydraulic conductivity in the most restrictive horizon for each soil
25 mapping ~~unit; unit.~~ Maximum maximum irrigation precipitation rates shall be provided for each soil
26 mapping unit;

27 (3) A ~~field-delineated~~ soil map delineating soil mapping units within each land application site and
28 showing all physical features, location of pits and auger borings, legends, scale, and a north ~~arrow;~~
29 arrow. The legends shall also include dominant soil series name and family or higher taxonomic
30 class for each soil mapping unit; and

31 (4) A ~~representative soils analysis (i.e., Standard Soil Fertility Analysis)~~ Standard Soil Fertility Analysis
32 conducted on each land application site. The Standard Soil Fertility Analysis shall include the
33 following parameters:

34 (A) Acidity; acidity;

35 (B) Base Saturation (by calculation); base saturation (by calculation);

36 (C) Calcium; calcium;

37 (D) Cation Exchange Capacity; cation exchange capacity;

- (E) Copper; ~~copper~~;
- (F) Exchangeable Sodium Percentage (by calculation); ~~exchangeable sodium percentage (by calculation)~~;
- (G) Magnesium; ~~magnesium~~;
- (H) Manganese; ~~manganese~~;
- (I) Percent Humic Matter; ~~percent humic matter~~;
- (J) pH; ~~pH~~;
- (K) Phosphorus; ~~phosphorus~~;
- (L) Potassium; ~~potassium~~;
- (M) Sodium; ~~sodium~~; and
- (N) Zinc; ~~zinc~~.

[Note: The North Carolina Board for Licensing of Soil Scientists has determined, via letter dated December 1, 2005, that preparation of soils reports pursuant to this Paragraph constitutes practicing soil science ~~under~~ pursuant to G.S. 89F.]

~~(c) Engineering design documents. If required by G.S. 89C, a professional engineer shall prepare these documents. The applicant shall provide the following documents to the Division:~~

- ~~(1) — engineering plans for the entire system, including treatment, storage, application, and utilization facilities and equipment except those previously permitted unless those previously permitted are directly tied into the new units or are critical to the understanding of the complete process;~~
- ~~(2) — specifications describing materials to be used, methods of construction, and means for ensuring quality and integrity of the finished product including leakage testing; and~~
- ~~(3) — engineering calculations including hydraulic and pollutant loading for each treatment unit, treatment unit sizing criteria, hydraulic profile of the treatment system, total dynamic head and system curve analysis for each pump, buoyancy calculations, and irrigation design.~~

~~[Note: The North Carolina Board of Examiners for Engineers and Surveyors has determined, via letter dated December 1, 2005, that preparation of engineering design documents pursuant to this Paragraph constitutes practicing engineering under G.S. 89C. In addition, the North Carolina Board of Examiners for Engineers and Surveyors has determined that design of residential reclaimed irrigations systems owned by the property owner does not constitute engineering under G.S. 89C.]~~

~~(d) Site plans. If required by G.S. 89C, a professional land surveyor shall provide location information on boundaries and physical features not under the purview of other licensed professions. The applicant shall provide site plans or maps to the Division where the reclaimed water is applied to the land surface or otherwise used in a ground absorption manner depicting the location, orientation and relationship of facility components including:~~

- ~~(1) — a scaled map of the site, with topographic contour intervals not exceeding 10 feet or 25 percent of total site relief and showing all facility related structures and fences within the treatment, storage and utilization areas, soil mapping units shown on all utilization sites;~~

(2) ~~the location of all wells (including usage and construction details if available), streams (ephemeral, intermittent, and perennial), springs, lakes, ponds, and other surface drainage features within 500 feet of all waste treatment, storage, and utilization site(s) and delineation of the review and compliance boundaries;~~

(3) ~~setbacks as required by Rule .0701 of this Subchapter; and~~

(4) ~~site property boundaries within 500 feet of all waste treatment, storage, and utilization site(s).~~

~~[Note: The North Carolina Board of Examiners for Engineers and Surveyors has determined, via letter dated December 1, 2005, that locating boundaries and physical features, not under the purview of other licensed professions, on maps pursuant to this Paragraph constitutes practicing surveying under G.S. 89C.]~~

~~(e)(c) Hydrogeologic report.~~ A hydrogeologic description of the subsurface, prepared by a Licensed Geologist, Licensed Soil Scientist, or Professional Engineer if required by Chapters 89E, 89F, or ~~89C~~89C, ~~respectively~~ respectively, of the subsurface to a depth of 20 feet or bedrock, whichever is less, shall be provided to the Division by the Applicant ~~applicant~~ for systems treating industrial waste and any system reclaimed water land application sites with a design flow of over 25,000 gallons per day. Industrial facilities generating less than 25,000 gallons per day of wastewater, and can demonstrate that the effluent will be of quality similar to domestic wastewater, including effluent requirements established in 15A NCAC 02U .0301(b), shall, upon request, be exempted from this requirement. A greater depth of investigation is required if the respective depth is used in predictive calculations. This evaluation shall be based on borings for which the numbers, locations, and depths are sufficient to define the components of the hydrogeologic evaluation. In addition to borings, other techniques may be used to investigate the subsurface conditions at the site. These techniques may include geophysical well logs, surface geophysical surveys, and tracer studies. This evaluation shall be presented in a report that includes a mounding analysis to predict the level of the seasonal high water table after reclaimed water application, if the seasonal high water table is within six feet of the surface. The report shall also consider ~~that includes~~ the following components:

(1) ~~a description of the regional and local geology and hydrogeology based on research of literature for the area;~~

(2) ~~a description, based on field observations of the site, of the site topographic setting, streams, springs and other groundwater discharge features, drainage features, existing and abandoned wells, rock outcrops, and other features that may affect the movement of the~~ reclaimed water; contaminant plume and treated wastewater;

(3) changes in the lithology underlying the site;

(4) the depth to bedrock and the occurrence of any rock outcrops;

(5) the hydraulic conductivity and transmissivity of the affected ~~aquifer(s); aquifer;~~

(6) the depth to the seasonal high water table;

(7) ~~a discussion of the~~ relationship between the affected aquifers of the site to local and regional geologic and hydrogeologic features; and

- 1 (8) ~~a discussion of the~~ groundwater flow regime of the site prior to the operation of the proposed facility
2 and the post operation of the proposed facility focusing on the relationship of the system to
3 groundwater receptors, groundwater discharge features, and groundwater flow ~~media; and media.~~
4 (9) ~~if the SHWT is within six feet of the surface, a mounding analysis to predict the level of the SHWT~~
5 ~~after wastewater reclaimed water application.~~

6 [Note: The North Carolina Board for Licensing of Geologists, via letter dated April 6, 2006, North Carolina Board
7 for Licensing of Soil Scientists, via letter dated December 1, 2005, and North Carolina Board of Examiners for
8 Engineers and Surveyors, via letter dated December 1, 2005, have determined that preparation of hydrogeologic
9 description documents pursuant to this Paragraph constitutes practicing geology ~~under~~ pursuant to G.S. 89E, soil
10 science ~~under~~ pursuant to G.S. 89F, or engineering ~~under~~ pursuant to G.S. 89C.]

11 (f) ~~The applicant shall provide property ownership documentation to the Division consisting of:~~

- 12 (1) ~~legal documentation of ownership (i.e., contract, deed or article of incorporation);~~
13 (2) ~~written notarized intent to purchase agreement signed by both parties, accompanied by a plat or~~
14 ~~survey map;~~
15 (3) ~~an easement running with the land specifically indicating the intended use of the property and~~
16 ~~meeting the condition of 15A NCAC 02L .0107(f); or~~
17 (4) ~~written notarized lease agreement signed by both parties, indicating the intended use of the property,~~
18 ~~as well as a plat or survey map. Groundwater standards shall be met across the entire site, and a~~
19 ~~compliance boundary shall not be provided.~~

20 (g) ~~Public utilities shall submit a Certificate of Public Convenience and Necessity or a letter from the NC Utilities~~
21 ~~Commission stating that a franchise application has been received.~~

22 (h) ~~The applicant shall provide to the Division a complete chemical analysis of the typical reclaimed water to be~~
23 ~~utilized for industrial waste. The analysis shall include:~~

- 24 (1) ~~Total Organic Carbon;~~
25 (2) ~~5 day Biochemical Oxygen Demand (BOD5);~~
26 (3) ~~Chemical Oxygen Demand (COD);~~
27 (4) ~~Nitrate Nitrogen (NO3 N);~~
28 (5) ~~Ammonia Nitrogen (NH3 N);~~
29 (6) ~~Total Kjeldahl Nitrogen (TKN);~~
30 (7) ~~pH;~~
31 (8) ~~Chloride;~~
32 (9) ~~Total Phosphorus;~~
33 (10) ~~Phenol;~~
34 (11) ~~Total Volatile Organic Compounds;~~
35 (12) ~~Escherichia coli (E. coli) or Fecal Coliform;~~
36 (13) ~~Coliphage (Type 2 reclaimed water only);~~
37 (14) ~~Clostridium perfringens (Type 2 reclaimed water only);~~

- (15) ~~Calcium;~~
- (16) ~~Sodium;~~
- (17) ~~Magnesium;~~
- (18) ~~Sodium Adsorption Ratio (SAR);~~
- (19) ~~Total Trihalomethanes;~~
- (20) ~~Toxicity Test Parameters; and~~
- (21) ~~Total Dissolved Solids.~~

~~(i) For irrigation sites, the applicant shall provide to the Division a project evaluation and a receiver site agronomic management plan and recommendations concerning cover crops and their ability to accept the proposed application rates of liquid, solids, minerals and other constituents of the wastewater.~~

~~(j)(d) The Applicant applicant shall provide to the Division a residuals management plan as required by Rule .0802 Rule .0802(a) of this Subchapter. A written commitment is not required at the time of application; however, it shall be provided prior to operation of the permitted system.~~

~~(e) The Applicant shall provide to the Division a water balance that determines the required effluent storage based on the following most limiting factor:~~

- ~~(1) hydraulic loading based on the most restrictive horizon;~~
- ~~(2) hydraulic loading based on the groundwater mounding analysis;~~
- ~~(3) nutrient management based on agronomic rates for the specified cover crop; or~~
- ~~(4) nutrient management based on crop management.~~

~~(k) The shall provide a water balance to the Division that determines required storage based upon the most limiting factor of the hydraulic loading based on either the most restrictive horizon or groundwater mounding analysis; or nutrient management based on either agronomic rates for a specified cover crop or crop management requirements.~~

History Note: Authority G.S. 143-215.1; 143-215.3(a);

Eff. June 18, 2011-2011;

Readopted Eff. September 1, 2018.

REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02U .0301

DEADLINE FOR RECEIPT: Friday, August 10, 2018

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 our office to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following technical changes be made:

In (a), line 6, and (b), line 23, so that I'm clear – what rules are actually classifying the processes as Types 1 or 2?

In (a)(1), line 11, and (b)(2), line 28, what is "TSS"? I know many of the other acronyms come from Rule .0201, but I don't see that one in that Rule.

Throughout this Rule, I take it your regulated public knows what "mg/L" and "mL" means?

In (b)(4), you do not spell out the full name Escherichia coli, as you do in (a)(4). I take it this is intentional?

In (c), line 35, consider replacing "are not" with "shall not be"

On line 36, what is "public access"

On line 37, what is "employee exposure" and who will determine whether this occurs?

In the History Note on Page 2, please remove the period after "(a.)" in 143-215.3(a).

Also in the History, isn't G.S. 143-215 applicable as well?

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: August 1, 2018

1 15A NCAC 02U .0301 is readopted as published in 32:06 NCR 597 as follows:

2
3 **SECTION .0300 - EFFLUENT STANDARDS**
4

5 **15A NCAC 02U .0301 RECLAIMED WATER EFFLUENT STANDARDS**

6 (a) Reclaimed water treatment processes classified as Type 2 by the rules in this Subchapter shall produce an
7 effluent quality ~~a tertiary quality effluent (filtered or equivalent)~~ prior to storage, distribution, or utilization that
8 meets the parameter limits listed below:

- 9 (1) monthly average BOD₅ of less than or equal to 5 ~~mg/l~~ mg/L and a daily maximum BOD₅ of less
10 than or equal to 10 ~~mg/l~~ mg/L;
- 11 (2) monthly average TSS of less than or equal to 5 ~~mg/l~~ mg/L and a daily maximum TSS of less than
12 or equal to 10 ~~mg/l~~ mg/L;
- 13 (3) monthly average NH₃ NH₃-N of less than or equal to 1 ~~mg/l~~ mg/L and a daily maximum NH₃
14 NH₃-N of less than or equal to 2 ~~mg/l~~ mg/L;
- 15 (4) monthly geometric mean Escherichia coli (E. coli) or fecal coliform level of less than or equal to
16 3/100 ~~ml~~ mL and a daily maximum E. coli or fecal coliform level of less than or equal to 25/100
17 ~~ml~~ mL;
- 18 (5) monthly geometric mean Coliphage level of less than or equal to 5/100 ~~ml~~ mL and a daily
19 maximum Coliphage level of less than or equal to 25/100 ~~ml~~ mL;
- 20 (6) monthly geometric mean Clostridium perfringens level of less than or equal to 5/100 ~~ml~~ mL and a
21 daily maximum Clostridium perfringens level of less than or equal to 25/100 ~~ml~~ mL; and
- 22 (7) maximum Turbidity of 5 Nephelometric Turbidity Units (NTUs).

23 (b) Reclaimed water treatment processes classified as Type 1 by the rules in this Subchapter shall produce an
24 effluent quality ~~a tertiary quality effluent (filtered or equivalent)~~ prior to storage, distribution, or utilization that
25 meets the parameter limits listed below:

- 26 (1) monthly average BOD₅ of less than or equal to 10 ~~mg/l~~ mg/L and a daily maximum BOD₅ of less
27 than or equal to 15 ~~mg/l~~ mg/L;
- 28 (2) monthly average TSS of less than or equal to 5 ~~mg/l~~ mg/L and a daily maximum TSS of less than
29 or equal to 10 ~~mg/l~~ mg/L;
- 30 (3) monthly average NH₃ NH₃-N of less than or equal to 4 ~~mg/l~~ mg/L and a daily maximum NH₃ NH₃-
31 N of less than or equal to 6 ~~mg/l~~ mg/L;
- 32 (4) monthly geometric mean E. coli or fecal coliform level of less than or equal to 14/100 ~~ml~~ mL and
33 a daily maximum E. coli or fecal coliform level of less than or equal to 25/100 ~~ml~~ mL; and
- 34 (5) maximum Turbidity of 10 NTUs.

35 (c) Reclaimed water produced by industrial facilities are not required to meet the criteria in this Rule if the
36 reclaimed water is used at the facility in an industrial process and the area of use has no public access and does not
37 result in employee exposure.

1
2 *History Note:* *Authority G.S. 143-215.1; 143-215.3(a.);*
3 *Eff. June 18, ~~2011~~, 2011;*
4 *Readopted Eff. September 1, 2018.*

REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02U .0401

DEADLINE FOR RECEIPT: Friday, August 10, 2018

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 our office to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following technical changes be made:

In (a), line 7, I take it your regulated public knows what "expanding" means?

In (b), line 9, what is "continuous" and "on-line" for monitoring?

On line 10, please insert a comma after "distribution"

Also on line 10, storage, distribution, or utilization of what?

In (c), line 11, please insert a comma after "distribution"

Also on line 11, do you need to retain "either"?

On line 13, what is "sufficient"? Is it that if they meet the barriers to distribution in this Paragraph?

In (d), line 14, what is "improperly"?

On line 15, insert a comma after "distribution"

Also on line 15, is that that the power source is provided in the facility?

In (f), line 19, demonstrated how and to whom?

On line 20, aren't "storage basins" now being called "storage units" in Rule .0802, as well as in Paragraph (h) of this Rule?

On line 24, delete "by regulation under" and replace it with "pursuant to"

In (i), line 29, is "equivalent dual disinfection processes" known to your regulated public?

In (k), is there already a requirement for this irrigation system? Or is the intent to state that if such a system is installed, it must include the rain or moisture sensor?

On line 36, delete the comma after "events"

Amanda J. Reeder
Commission Counsel

Date submitted to agency: August 1, 2018

On line 36, should "would" be "may"?

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: August 1, 2018

1 15A NCAC 02U .0401 is readopted as published in 32:06 NCR 597 as follows:

2
3 **SECTION .0400 - DESIGN STANDARDS**
4

5 **15A NCAC 02U .0401 DESIGN CRITERIA FOR RECLAIMED WASTEWATER WATER TREATMENT**
6 **FACILITIES CONJUNCTIVE SYSTEMS**

7 (a) The requirements in this Rule shall apply to all new and expanding ~~conjunctive reclaimed water treatment~~
8 ~~facilities, as applicable. facilities.~~

9 (b) Continuous on-line monitoring and recording for turbidity or particle count and flow shall be provided prior to
10 storage, distribution or utilization.

11 (c) Effluent from the treatment facility shall not be discharged to the storage, distribution or utilization system if either
12 the turbidity exceeds 10 NTUs or if the permitted pathogen levels cannot be met. The facility shall have the ability to
13 ~~utilize~~ use alternate wastewater management options when the effluent quality is not sufficient.

14 (d) An automatically activated standby power source or other means to prevent improperly treated wastewater from
15 entering the storage, distribution or utilization system shall be provided.

16 (e) The permit shall require an operator certified by the Water Pollution Control System Operators Certification
17 Commission (WPCSOCC) of a grade equivalent or greater than the facility classification to be on call 24 hours per
18 day.

19 (f) No storage facilities are required ~~as long as~~ if it can be demonstrated that other permitted means of disposal are
20 available if 100 percent of the reclaimed water cannot be ~~utilized.~~ used. When provided, storage basins shall meet the
21 design requirements in Rule .0402 ~~(e)~~ (f) of this Section.

22 (g) Reclaimed water irrigation system design shall not exceed the recommended precipitation rates in the soils report
23 prepared pursuant to ~~Rule .0201~~ Section .0200 of this Subchapter. ~~Single-family~~ Single-family residential irrigation
24 systems and commercial ~~(non-residential)~~ irrigation systems ~~less than one acre in size that are~~ permitted by regulation
25 under Rule .0113(8) of this Subchapter do not require preparation of a soils report.

26 (h) All open-atmosphere treatment lagoons and ponds, and open-atmosphere storage units shall have at least two feet
27 of freeboard.

28 ~~(h)~~ (i) Type 2 reclaimed water treatment facilities shall provide dual disinfection systems containing UV disinfection
29 and chlorination or equivalent dual disinfection processes to meet pathogen control requirements.

30 ~~(i)~~ (j) Type 2 reclaimed water treatment facilities shall provide documentation that the combined treatment and
31 disinfection processes are capable of the following:

- 32 (1) log 6 or greater reduction of E. coli;
33 (2) log 5 or greater reduction of Coliphage; and
34 (3) log 4 or greater reduction of Clostridium perfringens.

35 (k) Automatically activated irrigation systems shall be connected to a rain or moisture sensor to prevent irrigation
36 during precipitation events, or wet conditions that would cause runoff.

- 1 *History Note:* *Authority G.S. 143-215.1; 143-215.3(a);*
- 2 *Eff. June 18, ~~2011~~, 2011;*
- 3 *Readopted Eff. September 1, 2018.*

REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02U .0402

DEADLINE FOR RECEIPT: Friday, August 10, 2018

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 our office to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following technical changes be made:

In (a), line 5, please make "design criteria" lowercase.

On lines 6-7, specified otherwise where? Do you mean the exception in Paragraph (m) of this Rule? If so, state that.

In (c), line 12, and (m), Page 2, line 24, what are "essential treatment units"? Is it the term as defined in Rule 02T .0103?

In (d), line 17, what is the "head" of the treatment facility?

In (f), line 29, what is "sufficient"? Is it to show the integrity and hydraulic connectivity on lines 29 and 30?

On line 29, what do you mean by "exhibit" and "effective"?

On line 31, insert a "the" before "storage basin"

Who will reduce this requirement? The Director? And on line 32, what is the guidance of what will "satisfy" the Director?

In (i), Page 2, line 6, so that I'm clear – you mean "protection" and not "freeboard" (as used in Rule .0401)?

In (l), line 13, what is an "influent pump"? I take it this term is known to your regulated public?

In (m), line 23, what is "gpd"? Is it gallons per day? Is this known to your regulated public? And should the acronym be capitalized as GPD?

Paragraph (n) was added after publication. Was it a result of public comment?

Who will provide the flow meter?

Amanda J. Reeder
Commission Counsel
Date submitted to agency: August 1, 2018

On line 26, what fields? Is the intent that all reclaimed wastewater under this Rule be used in fields, rather than irrigation, flushing, etc.?

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: August 1, 2018

1 15A NCAC 02U .0402 is readopted with changes as published in 32:06 NCR 598 as follows:

2
3 **15A NCAC 02U .0402 DESIGN CRITERIA FOR DEDICATED RECLAIMED WATER TREATMENT**
4 **FACILITIES**

5 (a) In addition to the Design Criteria established in Rule .0401 of this Section, The the requirements in this Rule shall
6 apply to all new and expanding ~~non-conjunctive~~ dedicated reclaimed water facilities, as applicable. unless specified
7 otherwise.

8 (b) Each facility, except for those using septic tanks or lagoon treatment, shall provide flow equalization with either
9 a capacity based upon a representative diurnal hydrograph or a capacity of 25 percent of the daily system design flow.
10 ~~Aerated flow equalization facilities shall be provided with a capacity based upon either a representative diurnal~~
11 ~~hydrograph or at least 25 percent of the daily system design flow.~~

12 (c) Dual facilities shall be provided for all essential treatment units.

13 ~~(d) Continuous on line monitoring and recording for turbidity or particle count and flow shall be provided prior to~~
14 ~~storage, distribution, or utilization.~~

15 ~~(e)~~(d) Effluent from the treatment facility shall be discharged to a five-day side-stream detention ~~pond~~ unit if either
16 the turbidity exceeds 10 NTUs or if the permitted pathogen levels cannot be met. The facility shall have the ability to
17 return the effluent in the five-day side-stream detention ~~pond~~ unit back to the head of the treatment facility.

18 ~~(f)~~(c) There shall be no The public shall be prohibited access to the wastewater treatment facility or the five-day side-
19 stream detention ~~pond.~~ unit. ~~The five day side stream detention pond shall have either a liner of natural material at~~
20 ~~least one foot in thickness and having a hydraulic conductivity of no greater than 1×10^{-6} centimeters per second when~~
21 ~~compacted, or a synthetic liner of sufficient thickness to exhibit structural integrity and an effective hydraulic~~
22 ~~conductivity no greater than that required of the natural material liner. Liner requirements of the five day side stream~~
23 ~~detention pond or separation distances between the bottom of the five day side stream detention pond and the~~
24 ~~groundwater table may be reduced if it can be demonstrated by predictive calculations or modeling methods that~~
25 ~~satisfy the Director, that construction and use of the five day side stream detention pond will not result in~~
26 ~~contravention of assigned groundwater standards at the compliance boundary.~~

27 ~~(g)~~(f) The storage ~~basin~~ and five-day side-stream detention units shall have either a liner of natural material at least
28 one foot in thickness and having a hydraulic conductivity of no greater than 1×10^{-6} centimeters per second when
29 compacted, or a synthetic liner of sufficient thickness to exhibit structural integrity and an effective hydraulic
30 conductivity no greater than that required of the natural material liner. Liner requirements of the ~~storage basin~~ unit or
31 separation distances between the bottom of storage basin and the groundwater table may be reduced if it can be
32 demonstrated by predictive calculations or modeling methods that satisfy the Director, that construction and use of
33 the ~~storage basin~~ unit will not result in contravention of assigned groundwater standards at the compliance boundary.

34 ~~(h) Automatically activated standby power supply onsite, capable of powering all essential treatment units under~~
35 ~~design conditions shall be provided.~~

~~(i) The permit shall require an operator certified by the Water Pollution Control System Operators Certification Commission (WPCSOCC) of a grade equivalent or greater than the facility classification to be on call 24 hours per day.~~

~~(j)(g)~~ By-pass and overflow lines are shall be prohibited.

~~(k)(h)~~ Multiple pumps shall be provided if wherever pumps are used.

~~(l)(i)~~ A water-tight seal on all ~~treatment/storage~~ treatment and storage units or ~~minimum of~~ two feet of protection from the 100-year flood elevation shall be provided.

~~(m) Reclaimed water irrigation system design shall not exceed the recommended precipitation rates in the soils report prepared pursuant to Rule .0202 of this Subchapter.~~

~~(n)(j)~~ ~~A minimum of~~ 30 days of residual storage shall be provided.

~~(o)(k)~~ Utilization areas shall be designed to maintain a one-foot vertical separation between the seasonal high water table and the ground surface.

~~(p)(l)~~ Influent pump stations shall meet the sewer ~~minimum~~ design criteria as provided set forth in 15A NCAC 02T .0300.

~~(q) Type 2 reclaimed water treatment facilities shall provide dual disinfection systems containing UV disinfection or equivalent and chlorination or equivalent to provide pathogen control.~~

~~(r) Type 2 reclaimed water treatment facilities shall provide documentation that the combined treatment and disinfection processes are capable of the following:~~

- ~~(1) log 6 or greater reduction of E. coli;~~
- ~~(2) log 5 or greater reduction of Coliphage; and~~
- ~~(3) log 4 or greater reduction of Clostridium perfringens.~~

(m) Domestic, commercial, or industrial dedicated reclaimed water systems, including single-family residence facilities, with flow less than 1,000 gallons per day (gpd), are exempt from meeting Paragraphs (c) and (h) of this Rule, if repair or replacement of essential treatment units can be completed within five days.

(n) Facilities shall be provided with a flow meter to measure the volume of treated reclaimed water applied to each field.

History Note: Authority G.S. 143-215.1; 143-215.3(a);

Eff. June 18, 2011-2011;

Readopted Eff. September 1, 2018.

REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02U .0403

DEADLINE FOR RECEIPT: Friday, August 10, 2018

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 our office to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following technical changes be made:

So that I am clear – this is a readoption that also is the first amendment to the Rule to comply with SL 2011-218 in Paragraph (f)?

If this is to apply SL 2011-218, then this readoption will proceed to the General Assembly. Please change Box 5 of the Submission for Permanent Rule form.

In (h), line 5, where did this change from 2 to 5 feet come from? I note that the current requirement is 10 feet, so I do not believe this is a substantial change pursuant to G.S. 150B-21.2(g), but did want to see if this change came from public comment.

In the History Note on Page 2, please remove the period after “(a.)” in 143-215.3(a).

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: August 1, 2018

1 15A NCAC 02U .0403 is readopted with changes as published in 32:06 NCR 598-599 as follows:

2
3 **15A NCAC 02U .0403 DESIGN CRITERIA FOR DISTRIBUTION LINES (~~SEE S.L. 2011-218~~)**

4 (a) The requirements in this Rule shall apply to all new distribution lines.

5 (b) All reclaimed water valves, storage ~~facilities~~ facilities, and outlets shall be tagged or labeled to warn the public or
6 employees that the water is not intended for drinking.

7 (c) All reclaimed water piping, valves, ~~outlets~~ outlets, and other appurtenances shall be color-coded, taped, or
8 otherwise marked to identify the source of the water as being reclaimed water as follows:

9 (1) All reclaimed water piping and appurtenances shall be either colored purple (Pantone 522 or
10 equivalent) and embossed or integrally stamped or marked "CAUTION: RECLAIMED WATER -
11 DO NOT DRINK" or be installed with a purple (Pantone 522 or equivalent) identification tape or
12 polyethylene vinyl wrap. The warning shall be stamped on opposite sides of the pipe and repeated
13 every three feet or less;

14 (2) Identification tape shall be at least three inches wide and have white or black lettering on purple
15 (Pantone 522 or equivalent) field stating "CAUTION: RECLAIMED WATER - DO NOT DRINK".
16 Identification tape shall be installed on top of reclaimed water pipelines, fastened at least every 10
17 feet to each pipe length and run continuously the entire length of the pipe; and

18 (3) Existing underground distribution systems retrofitted for the purpose of ~~utilizing~~ conveying
19 reclaimed water shall be taped or otherwise identified as in Subparagraphs (1) or (2) of this
20 Paragraph. This identification need not extend the entire length of the distribution system but shall
21 be incorporated within 10 feet of crossing any potable water supply line or sanitary sewer line.

22 (d) All reclaimed water valves and outlets shall be of a type, or secured in a manner, that permits operation by
23 personnel authorized by the entity that operates the reclaimed water system.

24 (e) Hose bibs shall be located in locked, below grade vaults that shall be labeled as being of nonpotable quality. As
25 an alternative to the use of locked vaults with standard hose bib services, other locking mechanisms such as hose bibs
26 ~~which that~~ can only be operated by a tool may be placed above ground and labeled as nonpotable water.

27 (f) ~~Cross Connection Control~~ There shall be no direct cross-connections between the reclaimed water and potable
28 waters systems, unless such connection has been approved by the Department pursuant to 15A NCAC 18C .0406.

29 (1) ~~There shall be no direct cross connections between the reclaimed water and potable waters systems;~~

30 (2) ~~Where both reclaimed water and potable water are supplied to a reclaimed water use area in~~
31 ~~residential or commercial (irrigation) applications, a dual check valve device (or a device providing~~
32 ~~equal or better protection) shall be installed at the potable water service connection to the use area;~~

33 (3) ~~Where both reclaimed water and potable water are supplied to a reclaimed water use area in~~
34 ~~industrial or commercial (non-irrigation) applications, a reduced pressure principle backflow~~
35 ~~prevention device or an approved air gap separation pursuant to 15A NCAC 18C shall be installed~~
36 ~~at the potable water service connection to the use area; and~~

1 ~~(4) — Where potable water is used to supplement a reclaimed water system, there shall be an air gap~~
2 ~~separation, approved and regularly inspected by the potable water supplier, between the potable~~
3 ~~water and reclaimed water systems.~~

4 (g) Irrigation system piping shall be considered part of the distribution system for the purposes of this Rule.

5 (h) Reclaimed water distribution lines shall be located ~~10~~ at least 25 feet horizontally from and 18 inches below any
6 water line ~~where~~ if practicable. ~~Where~~ If these separation distances cannot be met, the piping and integrity testing
7 procedures shall meet water main standards in accordance with 15A NCAC 18C.

8 (i) Reclaimed water distribution lines shall not be less than 50 feet from a well unless the piping and integrity testing
9 procedures meet water main standards in accordance with 15A NCAC 18C, but in no case shall they be less than 25
10 feet from a private well.

11 (j) Reclaimed water distribution lines shall meet the separation distances to sewer lines in accordance with 15A NCAC
12 02T .0305.

13
14 *History Note: Authority G.S. 143-215.1; 143-215.3(a.);*

15 *Eff. June 18, 2011 (S.L. 2011-218); 2011 (S.L. 2011-218);*

16 *Readopted Eff. September 1, 2018.*

REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02U .0404

DEADLINE FOR RECEIPT: Friday, August 10, 2018

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 our office to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following technical changes be made:

In (a), line 4, I take it your regulated public knows what "expanding" means?

In (b)(2), what are "direct" cross-connections? Does your regulated public know?

In (c)(2), line 15, you use the term "essential treatment units" which is defined in Rule 02T .0103. However, on line 16 repeat part of the definition that it is "essential to the operation" Do you need to reuse the term "essential" here?

Also on line 15, what is "proper"?

On line 16, what is "safely"?

On line 17, what is "efficiently" and "immediately"?

In (c)(3), line 19, what is "improperly"?

On line 20, what is an "unsafe condition" and who determines this?

In (c)(4), line 21, who determines if it is "suitable for reuse"?

In (c)(7), line 28, insert a comma after "trenches"

On line 31, who will determine what is necessary and what is "consistent"?

On line 32, who will reduce this? Based upon what?

Also on line 32, why is "applicant" capitalized?

In (c)(8), line 36, please insert a comma after "ponds"

On Page 2, line 3, what is "sufficient"? Is it to show the integrity and hydraulic connectivity on lines 3 and 4?

Amanda J. Reeder
Commission Counsel
Date submitted to agency: August 1, 2018

Also on line 3, what do you mean by “exhibit” and “effective”?

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: August 1, 2018

1 15A NCAC 02U .0404 is adopted with changes as published in 32:06 NCR 599-600 as follows:

2
3 **15A NCAC 02U .0404 DESIGN CRITERIA FOR CLOSED-LOOP RECYCLE SYSTEMS**

4 (a) The requirements in this Rule shall apply to all new and expanding closed-loop recycle facilities.

5 (b) Design criteria related to closed-loop recycle systems in general.

6 (1) ~~There shall be no~~ The public shall be prohibited access to the wastewater treatment equipment,
7 wastewater storage structures, or to the wastewater within a closed-loop recycle facility.

8 (2) If potable water is used to supplement a closed-loop recycle water system, there shall be no direct
9 cross-connections between the closed-loop system and potable water systems, unless such
10 connection has been approved by the Department pursuant to 15A NCAC 18C .0406.

11 (c) Design criteria related to treatment and storage units used in closed-loop recycle systems.

12 (1) The facility shall have the ability to stop production of effluent, return the effluent back to the
13 treatment facility, store the effluent, or discharge the effluent to another permitted wastewater
14 treatment facility when recycling cannot be conducted.

15 (2) Essential treatment units shall be provided in duplicate if proper operation of the treatment unit is
16 essential to the operation of the closed-loop recycle system and the operation cannot safely or
17 efficiently be immediately stopped or altered to operate without the closed-loop recycle system.

18 (3) An automatically activated standby power source, system shutdown, or other means shall be
19 employed to prevent improperly treated wastewater from entering a treated waste water storage
20 structure or from being recycled if loss of power would create an unsafe condition.

21 (4) If they are suitable for reuse, residues recovered during the treatment process may be recycled
22 through the processes that generated the wastewater rather than disposed of as a waste.

23 (5) A water tight seal on all treatment and storage units or two feet of protection from the 100-year
24 flood elevation shall be provided.

25 (6) Storage units in a closed-loop recycle system shall be designed to contain the accumulation of water
26 from a 25-year, 24-hour storm event with 1 foot freeboard, unless the system is protected from
27 rainfall and runoff.

28 (7) The bottoms of earthen impoundments, trenches or other similar excavations shall be at least four
29 feet above the bedrock surface, except that the bottom of excavations that are less than four feet
30 above bedrock shall have a liner with a hydraulic conductivity no greater than 1×10^{-7} centimeters
31 per second. Liner thickness shall be that thickness necessary to achieve a leakage rate consistent
32 with the sensitivity of classified groundwaters. Liner requirements may be reduced if the Applicant
33 demonstrates through predictive calculations or modeling methods that construction and use of these
34 treatment and disposal units will not result in contravention of surface water or groundwater
35 standards.

36 (8) Treatment works and disposal systems using earthen basins, lagoons, ponds or trenches, excluding
37 holding ponds containing non-industrial treated effluent prior to irrigation, for treatment, storage or

disposal shall have either a liner of natural material at least one foot in thickness and having a hydraulic conductivity of no greater than 1×10^{-6} centimeters per second when compacted, or a synthetic liner of sufficient thickness to exhibit structural integrity and an effective hydraulic conductivity no greater than that of the natural material liner.

*History Note: Authority G.S. 143-215.1; 143-215.3(a);
Eff. September 1, 2018.*

REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02U .0501

DEADLINE FOR RECEIPT: Friday, August 10, 2018

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 our office to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following technical changes be made:

Do any of the amendments proposed in the readoption of this Rule implement SL 2011-48?

Throughout this Rule, why is "Permittee" now capitalized?

Throughout this Rule, whenever you require the information to be provided to employees "in a language they understand" do you mean the language they speak, or do you mean phrased in a way that it's understandable? If the latter, who determines this?

Throughout this Rule, what is the "generator"? The facility producing it?

In (a)(3), line 13, and (b)(4), Page 2, line 6, what is required to be recorded in the record keeping system?

In (a)(4), line 15, and (b)(3), Page 2, line 3, what is the "education and approval program" intended to address? What are the contents or topics to be addressed? Is this entirely up to the generator?

In (a)(5), line 18, and (b)(5), Page 2, line 8, what is "routine"?

In (b), line 33, I think you either meant to strike "activities" after "for" or insert an "and" before "industrial"

In (b)(6), should the should this be changed to be consistent with the changes made to (b), Page 1, line 33.

In (c), line 15, please insert a comma after "spas"

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: August 1, 2018

1 15A NCAC 02U .0501 is readopted as published in NCR 32:06 600-601 as follows:

2
3 **SECTION .0500 - GENERAL UTILIZATION REQUIREMENTS**
4

5 **15A NCAC 02U .0501 RECLAIMED WATER UTILIZATION (~~SEE S.L. 2011-48~~)**

6 (a) Reclaimed water utilized in a manner that includes application to the land surface shall meet the following criteria:

- 7 (1) The reclaimed water shall meet requirements for Type 1 reclaimed water in Rule .0301(b) of this
8 Subchapter;
- 9 (2) Notification shall be provided by the Permittee ~~permittee~~ or its representative to inform the public
10 and employees of the use of reclaimed water (~~Non-Potable Water~~) and that the reclaimed water is
11 not intended for drinking. Notification material shall be provided to employees in a language they
12 understand;
- 13 (3) The reclaimed water generator shall develop and maintain a record keeping program for distribution
14 of reclaimed water;
- 15 (4) The reclaimed water generator shall develop and maintain an education and approval program for
16 all use of reclaimed water. Educational material shall be provided to employees in a language they
17 understand;
- 18 (5) The reclaimed water generator shall develop and maintain a routine review and inspection program
19 for all uses of reclaimed water on property not owned by the generator;
- 20 (6) The compliance boundary and the review boundary for groundwater are established at the irrigation
21 area boundaries. No deed restrictions or easements shall be required to be filed on adjacent
22 properties. Land application of effluent shall be on property controlled by the generator unless an
23 easement is provided in accordance with ~~15A NCAC 02L .0107~~ 15A NCAC 02L .0107, except in
24 cases where a compliance boundary is not established; and
- 25 (7) Reclaimed water irrigated on designed soil matrix, such as artificial or natural turf athletic fields
26 with subsurface drainage shall meet the following conditions:
- 27 (A) Annual hydraulic loading and maximum precipitation rates shall be designed to irrigate a
28 volume not to exceed the design water capacity of the designed soil matrix above the
29 drainage system; and
- 30 (B) Outlets of the drainage system shall not be allowed to discharge directly to surface waters
31 (intermittent or perennial) or to storm water conveyance systems that do not allow for
32 infiltration prior to discharging to surface waters.

33 (b) Reclaimed water used for activities ~~other than land application (such as industrial and commercial uses)~~ industrial
34 and commercial uses shall meet the criteria below:

- 35 (1) The reclaimed water shall meet requirements for Type 1 reclaimed water;
- 36 (2) Notification shall be provided by the Permittee ~~permittee~~ or its representative to inform the public
37 and employees of the use of reclaimed water (~~Non-Potable Water~~) and that the reclaimed water is

not intended for drinking, and notification material shall be provided to employees in a language they understand;

(3) The reclaimed water generator shall develop and maintain an education and approval program for all reclaimed water users, and educational material shall be provided to employees in a language they understand;

(4) The reclaimed water generator shall develop and maintain a record keeping program for distribution of reclaimed water;

(5) The reclaimed water generator shall develop and maintain a routine review and inspection program for all reclaimed water users; and

(6) Reclaimed water used for activities other than land application shall not be used in a manner that causes exposure to aerosols.

~~(e) Reclaimed water used in commercial or industrial facilities for the purposes of urinal and toilet flushing or fire protection in sprinkler systems shall be approved by the Director if the applicant can demonstrate to the Division that public health and the environment will be protected.~~

~~(d)(c)~~ Reclaimed water shall not be used for swimming pools, hot-tubs, spas or similar uses.

~~(e) Reclaimed water shall not be used for direct reuse as a raw potable water supply.~~

History Note: Authority G.S. 143-215.1; 143-215.3(a);

Eff. June 18, 2011 (S.L. 2011-48); (S.L. 2011-48);

Readopted Eff. September 1, 2018.

REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02U .0601

DEADLINE FOR RECEIPT: Friday, August 10, 2018

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 our office to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following technical changes be made:

In (a), line 6, what are "advisory signs"? What are they to say?

In (b), line 7, can't you just end the sentence after "potable water"?

In (d), line 11, what is the "education and approval program" intended to address? What are the contents or topics to be addressed? Is this entirely up to the generator?

In (e), line 13, what is required to be recorded in the record keeping system?

In (f), line 15, what is "routine"?

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: August 1, 2018

1 15A NCAC 02U .0601 is readopted as published in 32:06 NCR 601 as follows:

2
3 **SECTION .0600 - BULK DISTRIBUTION OF RECLAIMED WATER**
4

5 **15A NCAC 02U .0601 BULK DISTRIBUTION OF RECLAIMED WATER**

6 (a) Tank trucks and other equipment used to distribute reclaimed water shall be identified with advisory signs.

7 (b) Tank trucks used to transport reclaimed water shall not be used to transport potable water that is used for drinking
8 or other potable purposes.

9 (c) Tank trucks used to transport reclaimed water shall not be filled through on-board piping or removable hoses that
10 may subsequently be used to fill potable water tanks.

11 (d) The reclaimed water generator shall develop and maintain an education and approval program for all reclaimed
12 water users.

13 (e) The reclaimed water generator shall develop and maintain a record keeping program for bulk distribution of
14 reclaimed water.

15 (f) The reclaimed water generator shall develop and maintain a routine review and inspection program for reclaimed
16 water users.

17
18 *History Note: Authority G.S. 143-215.1; 143-215.3(a);*

19 *Eff. June 18, ~~2011~~, 2011;*

20 *Readopted Eff. September 1, 2018.*

REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02U .0701

DEADLINE FOR RECEIPT: Friday, August 10, 2018

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 our office to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following technical changes be made:

It appears that the changes to the Rule in (b), lines 15 and 16, (c), lines 23-25, and Paragraphs (e) and (f) are to apply SL 2013-413, Section 22. As such, it appears that these amendments to the readoption are not subject to RRC review and that this readoption is subject to automatic legislative review. Please amend Box 5 of the Submission for Permanent Rule form.

In (a), line 7, do you not simply mean to cite to Rule 02T .0506?

In (b), line 17, why do you need this language, given the language in (a)?

In (c), line 18, is "discharged to the ground" the same as "land applied"?

In (c), line 25, consider inserting a comma after "Phosphorous"

On line 26, this is not the language from the Session Law. That law refers to Rule 02U .0101.

On line 29, what are "monitoring wells"?

In (g), Page 2, what other setback waivers are there? How are those requested or granted? Is this under the Rules in 02T .0500?

In (h), line 5, please replace "said" with "the"

In (i), line 6, what are "places of assembly"?

On line 7, please delete the comma after "modified"

Also on line 7, consider replacing "are" with "shall be"

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: August 1, 2018

1 15A NCAC 02U .0701 is readopted with changes as published in 32:06 NCR 601 as follows:

3 **SECTION .0700 - SETBACKS**

5 **15A NCAC 02U .0701 SETBACKS**

6 (a) Treatment and storage facilities associated with systems permitted under this Subchapter shall adhere to the
7 setback requirements in 15A NCAC 02T ~~.0500~~ .0500, except as provided in this Rule.

8 (b) Final effluent storage facilities shall meet all setback requirements for riparian buffer rules pursuant to 15A NCAC
9 ~~02B 02B~~, as well as the following setbacks:

	feet
Any private or public water supply source	100
Surface waters (streams – intermittent and perennial, perennial waterbodies, and wetlands)	50
Any well with exception of monitoring wells	100
Any property line <u>for facilities constructed on or after June 18, 2011</u>	50
<u>Any property line for facilities constructed prior to June 18, 2011</u>	<u>0</u>

17 Otherwise storage facilities shall meet the provisions of Paragraph (a) of this Rule.

18 (c) The setbacks for utilization areas sites where reclaimed water is discharged to the ground and applied shall be as
19 follows:

	feet
Surface waters (streams – intermittent and perennial, perennial waterbodies, and wetlands) not classified SA	25
<u>Surface waters (streams – intermittent and perennial, perennial waterbodies, and wetlands)</u> <u>not classified SA, provided that the reclaimed water to be utilized contains no</u> <u>more than 10 mg/L of Total Nitrogen and no more than 2 mg/L of Total Phosphorus</u> <u>in addition to applicable requirements of Section .0300 of this Subchapter</u>	<u>0</u>
Surface waters (streams – intermittent and perennial, perennial waterbodies, and wetlands) classified SA	100
Any well with exception <u>te-of</u> monitoring wells	100

31 (d) No setback between the application area and property lines is required.

32 (e) Setbacks between reclaimed water storage ponds and property lines or wells under separate ownership may be
33 waived by the adjoining property owner. A copy of the signed waiver shall be provided to the Department.

34 (f) Setbacks between reclaimed water storage ponds and wells under the same ownership as the reclaimed water
35 storage pond may be waived by the property owner.

1 (g) Setback waivers, other than those allowed in Paragraphs (e) and (f) of this Rule, shall be written, notarized, signed
2 by all parties involved and recorded with the County Register of Deeds. Setback waivers involving the compliance
3 boundary shall be in accordance with 15A NCAC 02L .0107.

4 (h) Setbacks to property lines established in ~~Paragraph~~ Paragraphs (a) and (b) of this Rule shall not be applicable
5 when the Permittee, or the entity from which the Permittee is leasing, owns both parcels creating said property line.

6 ~~(f)(i)~~ (i) Habitable residences or places of ~~public~~ assembly under separate ownership constructed after the non-
7 discharge facilities were originally permitted or subsequently modified, are exempt from the setback requirements in
8 Paragraph (a) of this Rule.

9
10 *History Note: Authority G.S. 143-215.1; 143-215.3(a);*

11 *Eff. June 18, 2011, 2011;*

12 *Readopted Eff. September 1, 2018.*

REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02U .0801

DEADLINE FOR RECEIPT: Friday, August 10, 2018

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 our office to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following technical changes be made:

Throughout this Rule, why are you capitalizing "permittee"?

On lines 6-7, what are "water generators"? Does your regulated public know?

In (a)(1), line 8, what is "sufficient"?

In (a)(2), line 10, what is "sampling" plan?

In (a)(3), line 13, what are "record drawings"?

In (a)(4), so that I'm clear – this is what the permittee anticipates will be needed for maintenance?

In (a)(5), line 17, I suggest you replace "equipment, as" with "equipment" so it reads "... site and equipment required in this Subchapter;"

In (g), doesn't this repeat (b)?

In (h), what needs to be in the log? Will it be up to the permittee?

In (i), what is "proper" operation?

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: August 1, 2018

1 15A NCAC 02U .0801 is readopted with changes as published in 32:06 NCR 601-602 as follows:

3 **SECTION .0800 – OPERATIONAL PRACTICES (~~PLANS~~)**

5 **15A NCAC 02U .0801 OPERATION AND MAINTENANCE ~~PLAN~~**

6 (a) An Operation and Maintenance Plan shall be maintained by the Permittee ~~permittee~~ for all reclaimed water
7 ~~systems, generators and closed-loop recycle systems.~~ The plan shall:

- 8 (1) describe the operation of the system in sufficient detail to show what operations are necessary for
9 the system to function and by whom the ~~functions~~ operations are to be conducted;
- 10 (2) include a sampling and monitoring plan to evaluate quality of reclaimed water within the distribution
11 system to provide quality assurance at the time of reuse, and specify actions to be taken in response
12 to unsatisfactory monitoring results;
- 13 (3) provide a map of all reclaimed water distribution lines and record drawings of all reclaimed water
14 utilization systems under the Permittee's ~~permittee's~~ control;
- 15 (4) describe anticipated maintenance of the system;
- 16 (5) include provisions for safety ~~measures~~ measures, including restriction of access to the site and
17 equipment, as required in this Subchapter; and
- 18 (6) include spill control ~~provisions~~ provisions, including:
19 ~~(a)(A)~~ (A) response to upsets and ~~bypasses~~ bypasses, including control, containment, and
20 remediation; and
21 ~~(b)(B)~~ (B) contact information for plant personnel, emergency responders, and regulatory agencies.

22 (b) Irrigation areas shall have a year-round vegetative cover.

23 (c) Irrigation shall not result in ponding or runoff of treated effluent.

24 (d) Irrigation and metering equipment shall be tested and calibrated annually, or as established by permit.

25 (e) ~~Automobiles~~ **Vehicles** and heavy machinery shall not be allowed on the irrigation area, except during installation
26 or maintenance activities.

27 (f) Water level gauges shall be provided for all open-atmosphere treatment lagoons and ponds, and open-atmosphere
28 storage units.

29 (g) Vegetative cover shall be maintained on all earthen embankments.

30 (h) The Permittee shall keep a log of maintenance activities that occur at the facility.

31 (i) The Permittee shall perform inspections and maintenance to ensure proper operation of the facility.

33 *History Note: Authority G.S. 143-215.1; 143-215.3(a);*

34 *Eff. June 18, ~~2011~~ 2011;*

35 *Readopted Eff. September 1, 2018.*

REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02U .0802

DEADLINE FOR RECEIPT: Friday, August 10, 2018

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 our office to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following technical changes be made:

In (a), who will create this plan? The permittee? And the permittee will maintain it?

In (a)(1), line 6, consider replacing "as to" with "of"

Also on line 6, insert a comma after "stored"

In (a)(2), line 2, what do you mean by "evaluation"?

On line 7, I take it your regulated public knows how to determine the maximum anticipated residuals production rate?

In (a)(3), line 9, the permit is included in the plan?

On line 9, replace "of" with "by"

On line 10, how are these approved by the Department, and how does one know where to find these?

On line 11, how will this be demonstrated?

Also on line 11, what is "adequate"?

On line 12, an application for approval of what? A permit? To become Department approved? And submitted to whom?

In (a)(4), line 14, what is a "designed unit process"?

On line 15, insert a comma after "stored"

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: August 1, 2018

1 15A NCAC 02U .0802 is readopted as published in 32:06 NCR 602 as follows:

2
3 **15A NCAC 02U .0802 RESIDUALS MANAGEMENT PLAN**

4 (a) A Residuals Management Plan shall be maintained for all reclaimed water and closed-loop recycle systems that
5 generate residuals. The plan shall include the following:

6 (1) an explanation as to how the residuals will be collected, handled, processed, stored and disposed;

7 (2) an evaluation of the residuals storage requirements for the treatment ~~facility~~ facility, based upon the
8 maximum anticipated residuals production rate and the ability to remove residuals;

9 (3) a permit for residuals ~~disposal or utilization~~, utilization or a written commitment to the Permittee of
10 a ~~Department-approved~~ Department-approved residuals ~~disposal/utilization~~ disposal or utilization
11 program accepting the residuals ~~which~~ that demonstrates that the approved program has adequate
12 capacity to accept the ~~residuals~~, residuals or that an application for approval has been submitted;
13 and

14 (4) if oil, grease, grit, or screenings removal and collection is a designed unit process, an explanation
15 as to how ~~the oil/grease~~ these materials will be collected, handled, processed, stored and disposed.

16 (b) The Permittee shall maintain a record of all residuals removed from the facility.

17
18 *History Note: Authority G.S. 143-215.1; 143-215.3(a);*

19 *Eff. June 18, ~~2011~~, 2011;*

20 *Readopted Eff. September 1, 2018.*

REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02U .0901

DEADLINE FOR RECEIPT: Friday, August 10, 2018

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 our office to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following technical changes be made:

In (a), lines 7-8, you are only reciting part of the statutory allowance. Is "modification" intended to address "alteration, extension"?

On lines 8-9, what rules are prohibiting this?

What authority are you relying upon for the exclusion on lines 11-12?

In (b), line 13, what is required for these applications? And are they produced by the Division?

And are the contents what is addressed in G.S. 143-215.1(f)(1) through (8)?

In (b)(1), line 15, what are "intended permits"? The permits the local authority will issue?

On line 16, please insert a comma after "inspection"

On line 17, what are "relevant" documents and who will determine relevance?

In (b)(2), line 19, what is this "certification"? What does that entail?

Line 20, what do you mean by "compatible"?

Are the requirements of Paragraph (d) not addressed by G.S. 143-215.1(f)(5)?

If you need to retain it, on line 25, define "unusual situations"

In (e), so that I'm clear – the local program shall perform the inspection?

In (f), line 31, and (j), Page 2, line 8, why is "Applicant" capitalized?

On line 32, consider stating "and make a recommendation to the Commission regarding approval of the proposed local program."

In (g), line 34, how are these "Division-approved"? How does the Division approve them?

Amanda J. Reeder
Commission Counsel

Date submitted to agency: August 1, 2018

In (g), what are the contents of this form? Where can one get copies of them?

On line 35, please insert a period after "forms."

On line 36, is this the end of a calendar year or fiscal year?

In (h), Page 2, line 3, delete "to note"

In (i), line 6, approved by the Director based upon what? What guidance are you providing for this in the Rule? And how are these requests submitted?

On line 7, do you need to retain "at least"?

Also on line 7, please capitalize "State" in "State-wide"

What is the purpose of Paragraph (j)?

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

1 15A NCAC 02U .0901 is readopted as published in 32:06 NCR 602-603 as follows:

2
3 **SECTION .0900 - LOCAL PROGRAM APPROVAL**
4

5 **15A NCAC 02U .0901 LOCAL PROGRAM APPROVAL**

6 (a) Municipalities, counties, local boards or commissions, water and sewer authorities, or groups of municipalities
7 and counties may apply to the Division for approval of programs for permitting construction, modification, and
8 operation of reclaimed water distribution lines and permitting users under their authority, unless prohibited by other
9 rules in this Subchapter. Construction of and modifications to treatment works, including pump stations for reclaimed
10 water distribution, require Division approval. Permits issued by approved local programs shall serve in place of
11 permits issued by the Division. Local program approval shall not be granted for ~~non-conjunctive~~ dedicated reclaimed
12 water systems. ~~uses~~.

13 (b) Applications. Applications for approval of local programs shall provide ~~adequate~~ information to assure compliance
14 with the requirements of this Subchapter and the following:

15 (1) Include two copies of the permit application forms, intended ~~permits~~ permits, including types of
16 uses, ~~minimum~~ design ~~criteria~~ criteria, ~~(specifications)~~, flow chart of permitting, inspection and
17 certification procedures, and other relevant documents to be used in administering the local
18 program; and

19 (2) Certification that the local authority has procedures in place for processing permit applications,
20 setting permit requirements, enforcement, and penalties that are compatible with those for permits
21 issued by the Division.

22 (c) Any amendments to the requirements of this Subchapter shall be incorporated into the local program within 60
23 days of the effective date of the amendments.

24 (d) If required by G.S. 89C, a North Carolina registered Professional Engineer shall be on the staff of the local program
25 or retained as a consultant to review unusual situations or designs and to answer questions that arise in the review of
26 proposed projects. The local program shall also provide staff or retain a consultant to review all other non-engineering
27 related program areas.

28 (e) Each project permitted by the local program shall be inspected for compliance with the requirements of the local
29 program at least once during construction.

30 (f) Approval of Local Programs. The Division staff shall acknowledge receipt of an application for a local ~~program~~
31 program, ~~in writing~~, review the application, notify the Applicant ~~applicant~~ of additional information that may be
32 required, and make a recommendation to the Commission on the acceptability of the proposed local program.

33 (g) All permitting actions, ~~bypasses from distribution lines~~, enforcement actions, and monitoring of the distribution
34 system shall be summarized and submitted to the Division ~~at a minimum~~ on an annual basis on Division-approved
35 forms ~~provided by the Division~~. The report shall also provide a listing and summary of all enforcement actions taken
36 or pending during the year. The report shall be submitted within 30 days after the end of each year.

1 (h) ~~A copy of all program documents such as specifications, permit applications, permit shells and shell certification~~
2 ~~forms shall be submitted to the Division on an annual basis along with a summary of any other program changes. A~~
3 summary of any program changes shall be submitted to the Division on an annual basis. Program changes to note
4 include staffing, processing fees, and ordinance revisions.

5 (i) Modification of a Local Program. After a local program has been approved by the Commission, any modification
6 of the program procedures or requirements specified in this Rule shall be approved by the Director to assure that the
7 procedures and requirements remain at least as stringent as the state-wide requirements in this Subchapter.

8 (j) Appeal of Local Decisions. Appeal of individual permit denials or issuance with conditions the permit Applicant
9 ~~applicant~~ finds unacceptable shall be made according to the approved local ordinance. The Commission shall not
10 consider individual permit denials or issuance with conditions to which a Permittee ~~permittee~~ objects. This Paragraph
11 does not alter the enforcement authority of the Commission as specified in G.S. 143-215.1(f).

12
13 *History Note: Authority G.S. 143-215.1; 143-215.1(f); 143-215.3(a);*
14 *Eff. June 18, ~~2011~~ 2011;*
15 *Readopted Eff. September 1, 2018.*

REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02U .1101

DEADLINE FOR RECEIPT: Friday, August 10, 2018

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 our office to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following technical changes be made:

Throughout this Rule, why are you capitalizing "Applicant" and "Permittee"?

In (a)(1), lines 8-9, what is this? If this is an outside standard recognized by G.S. 150B-21.6, you need to incorporate it by reference. If it is not, what is your authority to use this in Rule without it going through rulemaking? Please note the same concern for (b)(1).

In (a)(2), line 13, are you saying that you all do not issue the permits for this pursuant to this Subchapter, or that it is forbidden?

In (b), line 17, I take it your regulated public knows what "expanding" means?

In (b)(2), line 22, what do you mean by "support any demonstration"?

In (b)(4), line 26, should there be a "the" before "class"?

In (b)(5), how will they determine this?

In (b)(6), line 29, what is "sufficient"? Will this be determined by the facility?

On line 30, what is a "representative year"?

In (b)(7), line 34, I recommend keeping the comma after "wetlands"

On line 35, should there be a "that" after "benefits" and "will be"?

In (b)(8), Page 2, lines 1-2, so that I'm clear – they must have twice the amount of land required at the beginning?

Please begin (b)(9), line 5, with "Ten"

In (b)(10), line 10, I take it "adequate" is known in this context?

In (c), line 15, please delete the comma after "facilities"

Amanda J. Reeder
Commission Counsel

Date submitted to agency: August 1, 2018

Also on line 15, what is expected for this documentation? Is this again entirely up to the facility?

On line 16, what do you mean by “applicable”? Is the intent that the facility be able to change the net environmental aspects?

Also on line 16, what are “net environmental aspects”? Is this known to your regulated public?

In (d)(3), line 26, what is “acute whole effluent toxicity testing”? Does your regulated public know?

In (e), line 28, I suggest deleting the comma after “augmentation”

In (e)(2)(D), line 3, I believe this should read “a groundwater monitoring plan, except for...”

In (e)(3), line 7, what are the contents of this education plan supposed to be?

In (e)(4), line 9, what do you intend to have occur in the “routine review and inspection program”?

In the History Note, why are you still citing to SL 2006-250? What part of that law wasn’t codified into the other citations here?

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

1 15A NCAC 02U .1101 is readopted as published in 32:06 NCR 603-604 as follows:

2
3 **SECTION .1100 - WETLANDS AUGMENTATION**
4

5 **15A NCAC 02U .1101 WETLANDS AUGMENTATION**

6 (a) Wetland augmentation shall be limited as follows:

- 7 (1) Wetland augmentation shall be limited to pine flat and hardwood flat wetlands as defined in the
8 most current version of the N.C. Wetland Assessment Method (NC WAM) User Manual developed
9 by the N.C. Wetland Functional Assessment Team (NC WFAT), excluding riparian ~~zones~~. ~~The NC~~
10 ~~WAM User Manual can be accessed at the following web address:~~
11 ~~<http://portal.ncdenr.org/web/wq/swp/ws/pdu/newam>; ~~zones~~;~~
12 (2) Reclaimed water discharge to Salt Water Wetlands (SWL) or Unique Wet Lands (UWL), as defined
13 in 15A NCAC 02B .0101, is not permitted under the rules in this Subchapter; and
14 (3) Reclaimed water discharge to wetlands areas shall be limited to times when the depth to groundwater
15 is greater than or equal to one foot.

16 (b) In addition to the requirements established in Rule .0201 or Rule .0202 of this ~~Subchapter~~ Subchapter, as
17 ~~applicable~~, all new and expanding wetlands augmentation ~~facilities~~, facilities as applicable, shall:

- 18 (1) Identify the classification of the existing wetlands according to the most current version of the N.C.
19 Wetlands Assessment Method (NC WAM) User Manual and information provided by the North
20 Carolina Natural Heritage Program (NC NHP);
21 (2) Identify the existing beneficial uses of the reclaimed water to the wetlands in accordance with 15A
22 NCAC 02B .0231, and support any demonstration of net environmental benefit;
23 (3) Determine the hydrologic regime of the wetlands, including depth and duration of inundation, and
24 average monthly water level fluctuations. An estimated monthly water budget shall be provided by
25 the Applicant ~~applicant~~ and compared to actual conditions during operation;
26 (4) Identify class of reclaimed water to be discharged, associated parameter concentrations, and annual
27 loading rates to the wetlands;
28 (5) Determine whether the wetland occurs in a ground water recharge or discharge area;
29 (6) Provide baseline monitoring information for wetlands sufficient to allow determination of reference
30 conditions, to be performed for at least one representative year prior to initiation of discharge;
31 (7) Provide a project evaluation and receiver site agronomic plan that includes a hydraulic loading
32 recommendation based on the soils report, hydrogeologic description, agronomic investigation,
33 wetland type, local topography, aquatic life, wildlife, and all other investigative results to support
34 that there will be no negative effects on the uses of the ~~wetlands~~, wetlands including the biological
35 criteria and net environmental benefits will be gained. Hydraulic loading recommendations shall
36 reflect seasonal changes to ~~wetlands~~ wetlands, including restrictions during times of high water table
37 levels;

- (8) For ~~non-conjunctive~~ dedicated wetlands augmentation systems, provide 200 percent of the land requirements based on the recommended hydraulic loading rate. After five years of operation the Permittee may request and receive a reduction in the additional land requirement ~~provided that if~~ operational data supports that sufficient utilization capacity exists for the reclaimed water generator;
- (9) 10 percent of the land requirements shall remain in a natural state to be used as a basis of comparison to the wetlands receiving reclaimed water;
- (10) For application of reclaimed water exhibiting parameter concentrations greater than 100 percent of the groundwater standards, provide a site-specific hydrogeologic investigation (i.e., evaluation of wetlands/groundwater interaction, groundwater recharge/discharge, gradient, project proximity to water supply wells) to show that hydrogeologic conditions are adequate to prevent degradation of groundwater quality and demonstrate through hydrogeological modeling that groundwater standards will not be exceeded at the compliance boundary; and
- (11) Provide documentation that any applicable NPDES program requirements have been met, pursuant to 15A NCAC 02H .0100.
- (c) All renewal applications for wetlands augmentation facilities, shall submit documentation that the project continues to function as designed and that the net environmental benefit aspects remain applicable.
- (d) Reclaimed water utilized for wetlands augmentation shall meet the following reclaimed water effluent standards:
- (1) Reclaimed water discharged to natural wetlands shall be treated to Type 1 reclaimed water standards;
- (2) In addition to water quality requirements associated with Type 1 reclaimed water, reclaimed water discharged to wetlands shall not exceed the following concentrations, unless net environmental benefits are provided:
- (A) Total Nitrogen (as Nitrogen) of 4.0 ~~mg/L~~; mg/L; and
- (B) Total Phosphorus (as Phosphorus) of 1 ~~mg/L~~; mg/L;
- (3) Metal concentrations in reclaimed water discharged to wetlands shall not exceed North Carolina surface water quality standards, unless acute whole effluent toxicity testing demonstrates absence of toxicity.
- (e) Reclaimed water facilities utilizing wetlands augmentation, shall meet the criteria below:
- (1) Notification shall be provided by the Permittee ~~permittee~~ or its representative to inform the public of the use of reclaimed water (~~Non Potable Water~~) and that the reclaimed water is not intended for drinking;
- (2) The reclaimed water generator shall develop and maintain a wetlands monitoring program. This monitoring will be conducted during the first five growing seasons after initiation of the application of reclaimed water, after which the Applicant ~~applicant~~ may apply for ~~and receive~~ reduced monitoring. The monitoring requirements ~~must~~ shall include the following items:
- (A) vegetation, macroinvertebrates, amphibians, fish, birds, and threatened or endangered species surveys;

- 1 (B) water chemistry;
- 2 (C) surface water and ground water depth readings; and
- 3 (D) groundwater monitoring plan except for those projects receiving reclaimed water
- 4 characterized by average annual parameter concentrations less than or equal to 50 percent
- 5 of ground water quality criteria, and less than 50 percent of required surface water
- 6 discharge concentrations;
- 7 (3) The reclaimed water generator shall develop and maintain an education program for all users of
- 8 reclaimed water on property not owned by the generator;
- 9 (4) The reclaimed water generator shall develop and maintain a routine review and inspection program
- 10 for the wetlands augmentation system; and
- 11 (5) The compliance boundary and the review boundary for groundwater shall be established at the
- 12 property line. No deed restrictions or easements are required to be filed on adjacent properties. Land
- 13 application of reclaimed water shall be on property controlled by the generator unless a contractual
- 14 agreement is provided in accordance with ~~15A NCAC 02L .0107~~ 15A NCAC 02L .0107, except
- 15 when in cases where a compliance boundary is not established.
- 16 (f) Permitting of wetlands augmentation uses shall not be delegated to local programs.

17

18 *History Note: Authority G.S. 143-215.1; 143-215.3(a); S.L. 2006-250;*

19 *Eff. June 18, ~~2011~~, 2011;*

20 *Readopted Eff. September 1, 2018*

REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02U .1401

DEADLINE FOR RECEIPT: Friday, August 10, 2018

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 our office to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following technical changes be made:

Throughout this Rule, why are you capitalizing "Applicant" and "Permittee"?

In (a), you may want to renumber the Subparagraphs. I would suggest making (a)(3) into (a)(1), (a)(1) into (a)(2), (a)(4) into (a)(3), (a)(5) into (a)(4), and (a)(2) into (a)(5). If you do this, please be sure to check all cross-references to ensure they are up to date.

In current (a)(1), lines 8-9, and elsewhere you refer to food that is "peeled, skinned, cooked or thermally processed" – how can you know that for sure? (For example, carrots and cucumbers are not always peeled, but often are.) Is this generally speaking?

In (a)(1), line 8, (a)(3), line 12, and (a)(4), line 15, please insert a comma after "cooked"

In (a)(5), what are these demonstration projects? What do they consist of, or is that entirely determined by the permittee?

In (c), Page 2, line 9, there is no longer a Paragraph (k) of Rule .0202. Do you now mean .0202(e)?

In (d)(1), so that I'm clear – this will be determined by the parties to the agreement?

In (d)(2), line 15, replace "shall" with "to"

In (e)(1), rather than reciting (b)(1) entirely, why not just state on line 21, "The Standard Soil Fertility Analysis shall include the parameters from Part (b)(1) of this Rule;"?

In (e)(2), line 37, this is not the correct cross-reference. Do you mean (f)(7)?

In (f)(2), Page 3, line 7, what does this notification entail? Is it signs or colored pipes and taping?

In (f)(3), line 10, what is required for the record keeping?

In (f)(4), what are the expected contents or topics for the education program?

Amanda J. Reeder
Commission Counsel
Date submitted to agency: August 1, 2018

In (f)(6), what is the “routine review and inspection program”? What do you intend for this to do?

In (f)(7), so that I’m clear – there is no requirement for dates here?

In the History Note, why are you still citing to SL 2006-250? What part of that law wasn’t codified into the other citations here?

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: August 1, 2018

1 15A NCAC 02U .1401 is readopted as published in 32:06 NCR 604-606 as follows:

2
3 **SECTION .1400 - IRRIGATION TO FOOD CHAIN CROPS**
4

5 **15A NCAC 02U .1401 IRRIGATION TO FOOD CHAIN CROPS**

6 (a) Irrigation to food chain crops shall be limited as follows:

- 7 (1) Reclaimed water utilized for direct or indirect contact irrigation of food chain crops that will be
8 peeled, skinned, cooked or thermally processed before consumption shall be treated to Type 1
9 reclaimed water standards;
- 10 (2) For the purposes of this Rule, tobacco is not considered a food chain crop;
- 11 (3) Reclaimed water shall not be utilized for direct contact irrigation of food chain crops that will not
12 be peeled, skinned, cooked or thermally processed before consumption except as approved in
13 Subparagraph (5) of this Paragraph;
- 14 (4) Reclaimed water utilized for indirect contact irrigation of food chain crops that will not be peeled,
15 skinned, cooked or thermally processed before consumption shall be treated to Type 2 reclaimed
16 water standards; and
- 17 (5) If requested, the Department shall authorize demonstration projects to collect and present data
18 related to the direct application of reclaimed water on crops that are not peeled, skinned, cooked, or
19 thermally processed before consumption. Crops produced during such demonstration projects may
20 be used as animal feed or may be thermally processed, cooked, or otherwise prepared for human
21 consumption in a manner approved by the North Carolina Department of Agriculture and Consumer
22 Services. If the Applicant, ~~applicant~~, based on the data collected, demonstrates to the Department
23 that public health will be protected if their reclaimed water is directly applied to crops ~~which~~ that
24 are not peeled, skinned, cooked, or thermally processed, the Department shall waive the prohibition
25 described in Subparagraph (3) of this Paragraph for that project. When considering such
26 demonstration projects, the Department shall seek the advice of the North Carolina Department of
27 Agriculture and Consumer Services.

28 (b) In addition to the requirements established in Rule .0201 or Rule .0202 of this ~~Subchapter~~ Subchapter, as
29 ~~applicable~~, all new and expanding irrigation to food chain crops systems shall submit a ~~representative soil analysis for~~
30 ~~standard soil fertility~~ Standard Soil Fertility Analysis for each field to be irrigated. ~~A~~ The Standard Soil Fertility
31 Analysis shall include the following parameters:

- 32 (1) Acidity;
- 33 (2) Base Saturation (by calculation);
- 34 (3) Calcium;
- 35 (4) Cation Exchange Capacity;
- 36 (5) Copper;
- 37 (6) Exchangeable Sodium Percentage (by calculation);

- (7) Magnesium;
- (8) Manganese;
- (9) Percent Humic Matter;
- (10) pH;
- (11) Phosphorus;
- (12) Potassium;
- (13) Sodium; and
- (14) Zinc.

(c) When a water balance is required by Rule .0202(k) of this ~~Subchapter~~ Subchapter, the water balance shall include seasonal water requirements for the crops.

(d) For irrigation sites not owned by the ~~Permittee~~, ~~permittee~~, a ~~notarized~~ land owner agreement shall be provided to the Division. The land owner agreement shall include the following:

- (1) a description of the approved uses and conditions for use of the reclaimed water consistent with the requirements of this Rule;
- (2) a condition requiring the reclaimed water supplier shall provide the landowner with the results of sampling performed to document compliance with the reclaimed water effluent standards; and
- (3) a condition requiring the landowner to report to the ~~Permittee~~ ~~permittee~~ any use of the reclaimed water inconsistent with the uses in the agreement.

(e) All renewal ~~Applicants~~ ~~applicants~~ for dedicated irrigation to food chain crop systems shall submit:

- (1) A ~~representative soil analysis for standard soil fertility~~ Standard Soil Fertility Analysis for each field to be irrigated. A Standard Soil Fertility Analysis shall include the following parameters:
 - (A) Acidity;
 - (B) Base Saturation (by calculation);
 - (C) Calcium;
 - (D) Cation Exchange Capacity;
 - (E) Copper;
 - (F) Exchangeable Sodium Percentage (by calculation);
 - (G) Magnesium;
 - (H) Manganese;
 - (I) Percent Humic Matter;
 - (J) pH;
 - (K) Phosphorus;
 - (L) Potassium;
 - (M) Sodium; and
 - (N) Zinc;
- (2) The inventory of commercial agricultural operations using reclaimed water to irrigate food chain crops required in Subparagraph (d)(7) of this Rule; and

- 1 (3) For irrigation sites not owned by the Permittee, ~~permittee~~, a ~~notarized~~ land owner agreement
2 pursuant to Paragraph (d) of this Rule.
- 3 (f) Reclaimed water facilities providing reclaimed water for the irrigation of food chain crops shall meet the criteria
4 below:
- 5 (1) Crops irrigated by direct contact with reclaimed water shall not be harvested within 24 hours of
6 irrigation with reclaimed water;
- 7 (2) Notification at the utilization site shall be provided by the Permittee ~~permittee~~ or its representative
8 to inform the public of the use of reclaimed water (~~Non-Potable Water~~) and that the reclaimed water
9 is not intended for drinking;
- 10 (3) The reclaimed water generator shall develop and maintain a record keeping program for distribution
11 of reclaimed water;
- 12 (4) The Permittee ~~permittee~~ shall develop and maintain an education program for users of reclaimed
13 water for irrigation to food chain crops;
- 14 (5) The reclaimed water generator shall provide all landowners receiving reclaimed water for irrigation
15 of food chain crops a summary of all reclaimed water system performance as required in G.S. 143-
16 215.1C;
- 17 (6) The reclaimed water generator shall develop and maintain a routine review and inspection program
18 for all irrigation to food chain crop systems; and
- 19 (7) The Permittee ~~permittee~~ shall maintain an inventory of commercial agricultural operations using
20 reclaimed water to irrigate food chain crops for each year of operation. The inventory shall be
21 maintained for five years. The inventory of food chain crop irrigation shall include the following:
- 22 (A) name of the agricultural operation;
- 23 (B) name and telephone number of the owner or operator of the agricultural operation;
- 24 (C) address of the agricultural operation;
- 25 (D) food chain crops irrigated with reclaimed water;
- 26 (E) type of application (~~e.g., irrigation~~) method used; and
- 27 (F) approximate irrigation area ~~where under irrigation on which~~ food chain crops are grown.

28

29 *History Note: Authority G.S. 143-215.1; 143-215.3(a); S.L. 2006-250;*
30 *Eff. June 18, ~~2011~~ 2011.*
31 *Readopted Eff. September 1, 2018.*