

## **Burgos, Alexander N**

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**Subject:** FW: EMC 02L Rules - Requests for Changes - May 2022 RRC Meeting

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**From:** Liebman, Brian R <brian.liebman@oah.nc.gov>

**Sent:** Tuesday, May 17, 2022 5:32 PM

**To:** Everett, Jennifer <jennifer.everett@ncdenr.gov>

**Cc:** Burgos, Alexander N <alexander.burgos@oah.nc.gov>; Smith, Eric G <eric.g.smith@ncdenr.gov>; Reynolds, Phillip T <preynolds@ncdoj.gov>

**Subject:** RE: EMC 02L Rules - Requests for Changes - May 2022 RRC Meeting

Hi everyone,

Unfortunately I haven't had a chance to revisit these today, and so I will let you know what my recommendation is tomorrow. Sorry for the delay, it's just been extremely busy here the last few days.

Thanks,  
Brian

Brian Liebman  
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REQUEST FOR CHANGES PURSUANT TO G.S. 150B-21.10

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02L .0101

**DEADLINE FOR RECEIPT: Wednesday, May 11, 2022.**

***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 email the reviewing attorney to inquire concerning the staff recommendation.

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

*In (b), line 16, who is a "bona fide purchaser"?*

**EMC Response: No changes made. Merriam-Webster's definition of a bona-fide purchaser: "a purchaser who purchases in good faith without notice of any defect in title and for a valuable consideration."**

*In (b), line 17, what is a "reasonable basis for knowing"?*

**EMC Response: No changes made. By leaving this phrase in, it provides an objective test (versus merely relying on a person's subjective statement of beliefs).**

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

Brian Liebman  
Commission Counsel

Date submitted to agency: April 27, 2022

REQUEST FOR CHANGES PURSUANT TO G.S. 150B-21.10

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02L .0102

**DEADLINE FOR RECEIPT: Wednesday, May 11, 2022.**

***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 email the reviewing attorney to inquire concerning the staff recommendation.

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

*In (6), line 22, add a hyphen between "143" and "215.1".*

**EMC Response: Correction made.**

*In (8), lines 24-26, the definition of "Constituent of Interest" is incredibly ambiguous. It is unclear who makes any of the determinations in the definition ("is or may be associated with or influenced by site activities or actions" or "of interest to the protection of public health"), and as written, it seems to me that almost any substance could fall within this definition.*

**EMC Response: This definition was made purposely general. Any substance could be considered a "constituent of interest" because all substances have 15A NCAC 02L .0202 Standards, whether it be a specific concentration, a naturally occurring concentration, or a practical quantitation limit. The Rule, therefore, allows for monitoring where the concentration of the substance is increased due to site activity.**

**Corrections made. In order to make this more definite, we deleted "or may be". Also, we changed the wording from "protection of public health and the environment." to "protection of public health or the environment."**

*In (10), line 30, are "direct, restrain, or influence" all necessary? Aren't directing and restraining a form of influencing?*

**EMC Response: Correct, these are all forms of influencing. Changes made. Deleted "direct, restrain" and added "physically, mechanically, or chemically". This should take care of the possibilities.**

*In (17), p.2, line 9, please define "subsurface".*

**EMC Response: No changes made. Subsurface means everything below the ground surface. This is standard wording used in the environmental field, and is well understood by the regulated community.**

*In (22), line 19, add an oxford comma following "chemical".*

**EMC Response: Correction made.**

Brian Liebman  
Commission Counsel

Date submitted to agency: April 27, 2022

*In (25), line 24, when you say “lowest concentration ... reliably achieved”, does this essentially mean the lowest amount of a substance you can measure?*

**EMC Response:** Yes, this is dependent upon the analytical technique, analytical method, and is unique to the individual laboratory due to analyst skill, instrument functionality, reagent quality, and other factors. It is the amount of a substance the laboratory can measure with confidence, which means the analysis includes quality control elements that support the analytical result.

*In (25), line 25, I do not understand what “a particular analytical technique operated within the specified parameters of a given analytical method” means. Can you explain?*

**EMC Response:** Testing methods are used from a variety of sources, EPA, Standard Methods, ASTM, etc., some of which allow for a variety of analytical techniques (e.g., titration, ion chromatography, colorimetry, etc.) to quantify any given analyte that have differing accuracy and sensitivity. An analytical method outlines the procedural steps the analyst performs using that particular analytical technique. The operating conditions outlined in the method can affect the sensitivity of the analysis.

*In (25), lines 25-26, who determines and how is it determined what the “particular” technique or method is used?*

**EMC Response:** No corrections made. This is dependent upon the regulatory program for which the analysis is performed.

- For samples analyzed for compliance with Clean Water Act permits, this is outlined in the Title 40 Code of Federal Regulations Part 136. It is promulgated by the EPA and contains approved analytical techniques and methods for each analyte from which laboratories may choose based on their equipment and needs.
- For groundwater samples, approved methods are outlined in 15A NCAC 02L .0112.
- For Underground Storage Tank related samples, approved methods are outlined in the Comprehensive Tables or Corrective Action Guidelines document published by the UST Section.

*In (25), lines 27-28, what are the “applicable state and federal quality assurance and quality control requirements”? If they are codified elsewhere, please incorporate by reference pursuant to G.S. 150B-21.6.*

**EMC Response:** No corrections made. Quality assurance and quality control requirements are dependent upon the regulatory program for which samples are analyzed. The minimum federal quality control requirements for Clean Water Act samples are captured in 40 CFR 136.7, which defers to the method (or method compendium) to outline the QC requirements. For example, the Standard Methods include QC chapters (1020, 2020, 3020, etc.) preceding the analytical method that capture QC requirements. Other methods such as the EPA methods include the QC requirements within the method itself.

For any approved methods that do not include QC, the minimum requirements are outlined in 40 CFR 136.7 (c) (1).

State quality assurance and quality control requirements are mandated by N.C. Gen. Stat. § 143-215.3(a)(10). Rule 15A NCAC 02H .0805 (a) (7) provide additional minimum quality control measures that certified laboratories must follow.

*In (25), were the changes made post-publication due to public comment?*

**EMC Response: Yes, the changes were made post-publication due to comments from the public as well as in response to a request from the RRC Chair for more clarity in the definition when the EMC's 02L .0200 rules came before the RRC.**

*In (29), p.3, line 10, what is the "capillary fringe"?*

**EMC Response: Capillary fringe means the zone above the water table in which water is held by surface tension. This is standard wording used in the environmental field, and is well understood by the regulated community.**

*In (30), line 11, please consider changing "their" to "his or her".*

**EMC Response: Correction made.**

*In (32), line 16, please change "which" to "that".*

**EMC Response: Correction made.**

*In (32), line 16, please add a comma following "combination".*

**EMC Response: Correction made.**

*In (32), line 18, define "unacceptable" and explain to whom the water must be unacceptable.*

**EMC Response: Corrections made. Deleted "render the water unacceptable". Added "result in adverse effects to the consumer".**

**NOTE: The term "adverse" (when referring to impacts) appears in 15A NACA 02B .0211(12), 02B .0212(5), and 02B .0212(3)(b).**

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

Brian Liebman  
Commission Counsel

Date submitted to agency: April 27, 2022

REQUEST FOR CHANGES PURSUANT TO G.S. 150B-21.10

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02L .0103

**DEADLINE FOR RECEIPT: Wednesday, May 11, 2022.**

***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 email the reviewing attorney to inquire concerning the staff recommendation.

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

*In (a), lines 5 and 7, please capitalize "state" if referring only to the State of North Carolina.*

**EMC Response: Corrections made.**

*Is (a) necessary? This paragraph seems more like an aspirational statement than a Rule as defined by G.S. 150B-2(8a).*

**EMC Response: This applicability statement is important and helpful to remove ambiguity and provide context for the rules.**

*In (a)(1), line 17, please define "significant".*

**EMC Response: No corrections made. Here, the term "significant" is used within its ordinary meaning. Merriam-Webster defines significant as "of a noticeably or measurably large amount." The term is well understood by the regulated community.**

*In (a)(3), line 23, please define "impairment".*

**EMC Response: No corrections made. Here, the term "impairment" is used in its ordinary meaning. Merriam-Webster defines impairment as "diminishment or loss of function." The term is well understood by the regulated community.**

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

Brian Liebman  
Commission Counsel

Date submitted to agency: April 27, 2022

REQUEST FOR CHANGES PURSUANT TO G.S. 150B-21.10

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02L .0104

DEADLINE FOR RECEIPT: Wednesday, May 11, 2022.

***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 email the reviewing attorney to inquire concerning the staff recommendation.

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

*In (a), line 4, what does it mean that groundwater “may” not be suitable for drinking without treatment?*

**EMC Response: Some water may be suitable for drinking without treatment based on the individual(s) consuming the water. For example, if sodium in the water increases but is still below the standard, some individuals with dietary sodium restrictions may need to treat the water to reduce those levels.**

*In (b), is this inclusive of all circumstances where the Director may apply the RS designation, or does (b) describe when the Director may apply the RS designation without an application from a third party?*

**EMC Response: This rule is intended to be all of the circumstances where the Director can apply the RS designation based on an application by a responsible party. Corrections made. To be more clear, we added “Upon application by a responsible party,” to the beginning of the sentence.**

*In (d), lines 23-24, what is the distinction between “predicted” and “expected”? Same question for same language at (f)(5), p.2, line 6.*

**EMC Response: Predicted would involve modeling whereas expected would be based on best professional judgment without modeling. In some cases, a model may not be necessary and therefore the geologist/hydrogeologist would use his or her best professional judgement to determine where the contaminant plume may be migrating.**

**Also, groundwater models are used to predict groundwater flow and fate and transport of constituents. However, groundwater modeling is an imperfect science because all models are simplifications of the real world based on the limitations of the data that are input into it. If the model has data gaps that cannot be addressed by real world input, then the geologist/hydrogeologist must use their best professional judgment to determine where they believe that contamination may be expected to migrate.**

Brian Liebman  
Commission Counsel

Date submitted to agency: April 27, 2022

Correction made. Added “through modeling” and “through professional judgment”.

**NOTES:** Based on this change, and in order to be consistent throughout the rule, we also made the following changes that were not commented on by the RRC:

- Changed language to “expected through professional judgment or predicted through modeling to occur in groundwater...” to Rule .0107(p)(1).
- Changed language to “expected through professional judgment or predicted through modeling to occur...” in Rule .0107(p)(2).
- Changed language to “expected through professional judgment or predicted through modeling...” in Rule .0110(d)(1).
- Changed language to “expected through professional judgment or predicted through modeling to migrate;” in Rule .0111(c)(3).
- Changed language to “expected through professional judgment or predicted through modeling to migrate;” in Rule .0111(d)(3).
- Changed language to “expected through professional judgment or predicted through modeling...” in Rule .0111(d)(10)(F).

*In (d), line 24, when “may” predictive modeling be used, and when may it not be used?*

**EMC Response:** Corrections made. Deleted “Predictive modeling may be used to supplement site-specific sample data in characterizing the current and predicted future extent of the plume.”.

*In (e), line 34, add a space between “under” and “15A”.*

**EMC Response:** Corrections made.

*In (f)(1), line 36, add “and” between “address” and “phone number”.*

**EMC Response:** Corrections made.

*In (f)(8), p.2, lines 14-15, what is a “programmatically statute”?*

**EMC Response:** Corrections made. Deleted “programmatically”.

*In (g), line 18, is a word missing between “and” and “whether”? The sentence seems to be missing something.*

**EMC Response:** Corrections made. Deleted “the proposed plan and”. Added “The Director may require a person who proposes a plan to supply any additional information not provided that is necessary to satisfy the requirements of Paragraph (f) of this Rule.” due to the changes in (i) [see comment in (i), lines 12-13 below].

*In (h)(1), line 22, where and how shall the Division publish notice? Website? Newspaper of general circulation?*

**EMC Response:** Corrections made. Changed wording to be, “Provide notice at least 30 days prior to any proposed final action to all property owners with signed statements per Paragraph (f)(8) of this Rule, to the local County Health Director, and the chief administrative officer of the jurisdiction(s) in which the contamination occurs.”.

*In (h)(3), p.3, line 5, please change “they” to “he or she”.*

**EMC Response:** Corrections made.

*In (i), p.3, line 10, which “requirements of this Rule” must the proposal comply with? Does this mean paragraph (f)?*

**EMC Response:** Corrections made. Deleted “requirements” and added “Paragraph (g)”.

Brian Liebman  
Commission Counsel

Date submitted to agency: April 27, 2022



*In (i), line 11, please change “their” to “his or her”.*

**EMC Response: Corrections made.**

*In (i), lines 12-13, what “additional information” may be required, and under what circumstances will it be required?*

*Also with respect to (i) generally, does the last clause contradict the first sentence? The Rule states that if the proposal complies with the requirements of the Rule, the Director “shall” approve the plan, but later states that the Director can require additional information not mentioned here in making a determination as to whether to approve the plan.*

**EMC Response: Changes made. Deleted “and may require a person who proposes a plan to supply any additional information not provided in Paragraph (f) of this Rule necessary to make their determination.” Added “The Director may require a person who proposes a plan to supply any additional information not provided that is necessary to satisfy the requirements of Paragraph (f) of this Rule.” to (g). The content of the “additional information” would depend upon the requirements that have not yet been satisfied and specific site conditions.**

*In (j), line 15, and (k), line 17, consider “RS area” or something similar.*

**EMC Response: Changes made. Deleted “area”. Added “area” to the second reference to RS.**

*In (k), line 17, consider “The RS distinction shall also...”*

**EMC Response: No changes made. Since RS stands for “restricted designation,” it fits the sentence. Note that the remainder of this Rule wording contains similar language.**

*In the History Note, is the reference “143B-282(2)” to 143B-282(a)(2)?*

**EMC Response: Changes made.**

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

Brian Liebman  
Commission Counsel

Date submitted to agency: April 27, 2022

REQUEST FOR CHANGES PURSUANT TO G.S. 150B-21.10

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02L .0106

**DEADLINE FOR RECEIPT: Wednesday, May 11, 2022.**

***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 email the reviewing attorney to inquire concerning the staff recommendation.

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

*As I understand this Rule, these requirements are largely enforced as permit conditions, correct? A person has to obtain a permit to undertake most actions regarding groundwater under 143-215.1, and the person is required as a condition of the permit to establish boundaries, monitor, and remediate any change to groundwater standards that occurs. How does this work for persons who have not obtained permits? I see that in (c), the Commission requires “any person conducting or controlling an activity that has not been permitted” to engage in monitoring, assessment, and, potentially, corrective action. What is the statutory authority for requiring this in the absence of a permit? To be clear, I’m not saying it isn’t there, I just am unclear as to what it is.*

**EMC Response: N.C. Gen. Stat. §§ 143-215.1 and -215.3. N.C. Gen. Stat. § 143-215.1(k) provides authority for the Secretary to require corrective action if a permitted disposal system causes groundwater pollution. In the event that groundwater pollution is not associated with a permitted system, N.C. Gen. Stat. § 143-215.1(a)(6) provides that no person can “cause or permit any waste, directly or indirectly, to be discharged to or in any manner intermixed with the waters of the State in violation of the water quality standards applicable to the assigned classifications” without a permit. And N.C. Gen. Stat. § 143-215.3(f) provides authority for the Department to determine when groundwater remediation to the standards has been completed. N.C. Gen. Stat. § 143-215.3(a)(1) then provides the authority to make rules implementing all of these provisions.**

*In (a), lines 6-7, the sentence “The corrective action... Paragraph (i)” is written in the passive tense and is somewhat unclear. Particularly the phrase “can be through” on line 6 is unclear to me. Are you saying that the person required to take corrective action may employ active remediation, natural attenuation, or risk-based remediation?*

**EMC Response: Correct. The responsible party has those three options when it comes to corrective action so long as they meet the applicable conditions.**

*In (b), line 12, what is the “vadose zone”? Does your regulated public know?*

Brian Liebman  
Commission Counsel

Date submitted to agency: April 27, 2022

**EMC Response:** The vadose zone extends from the top of the ground surface to the water table. This is standard wording used in the environmental field.

*In (d)(2), p.2, line 26, if an exceedance is predicted by whom or what? If you re-phrase this for clarity, please use the active tense.*

**EMC Response:** Correction made. Added “expected through professional judgment or” and “through modeling” to be consistent with the remainder of the rules.

*In (f), p.4, line 7, who determines whether there is an imminent threat to human health? The Director? How does he or she make this determination?*

**EMC Response:** Corrections made. Reworded to “The Director may request written documentation of the response actions in advance of the site assessment report if the Director determines that there is an immediate threat to human health based on information including the nature and extent of the release, the potential exposure pathways, and proximity to human receptors.”

*In (g), line 33, how and to whom should the remedial technology be demonstrated to provide the most effective means? Means of what?*

**EMC Response:** Corrections made. Added “to the Director” after demonstrated. This answers the question of to whom it be demonstrated. The means are the measure necessary to return the groundwater to the standards as stated in the Rule.

*In (j), p.6, line 27, omit “that” following “demonstrate.”*

**EMC Response:** Correction made.

*In (j)(4), p.7, line 3, I don’t understand the first part of the sentence: “The proposed contaminant concentrations to actively remediate to in the source area...” I’m even more confused by the context, as this describes part of what must be included in an application to terminate active remediation.*

**EMC Response:** Here is a scenario for this rule. The responsible party can’t remediate the contamination in the source area to the standards as required because of things such as cost, the distribution of the contamination, the physical nature of the contaminants, etc. However, based on modeling, the responsible party demonstrates that by actively remediating the contaminants to a level above the standards, the processes of natural attenuation will remediate the remaining contamination to the standards prior to reaching a receptor. In that particular Rule, we are asking the responsible party to tell us what those proposed concentration levels above the standards are such that natural attenuation will work for the remainder of the contamination. Added the words “prior to reaching the standards” to further clarify.

*In (k), line 34, please capitalize “state” if referring only to the State of North Carolina.*

**EMC Response:** Correction made.

*In (q)(1), p.9, line 12, what “Paragraphs” are being referenced?*

**EMC Response:** Correction made. Added “Paragraphs (g) or (h) of this Rule;”

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

Brian Liebman  
Commission Counsel

Date submitted to agency: April 27, 2022

REQUEST FOR CHANGES PURSUANT TO G.S. 150B-21.10

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02L .0107

**DEADLINE FOR RECEIPT: Wednesday, May 11, 2022.**

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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 email the reviewing attorney to inquire concerning the staff recommendation.

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

*In (k), p.2, line 13, to whom will the easement be in favor of?*

**EMC Response: We don't exactly understand this question. However, the entity filing the easement is the landowner (who is not the Permittee), and the easement allows the Permittee to have a compliance zone on the landowner's property.**

*In (k), line 16, there appears to be an extra space between "statute." and "The Director...."*

**EMC Response: There are two spaces between the period and the start of the new sentence. This is consistent with the rest of the Rule.**

*In (k)(2), line 20, how is it determined that groundwater monitoring is no longer required?*

**EMC Response: Correction made. Added "per Rule .0110(f) of this Subchapter;"**

*In (o), p.3, the paragraph is written awkwardly. Particularly "...unless the violations are the result of violations of permit conditions..." Consider rephrasing in the active tense.*

**EMC Response: Corrections made. Reworded to "...shall not be assessed for violations of the standards within a compliance zone unless the violations are of permit conditions..."**

*In (p), line 25, what does "be written in such a way as to protect groundwater" mean? This seems as if it could be extremely broad.*

**EMC Response: Corrections made. Deleted entire rule as it was ambiguous and unnecessary.**

*In (q)(3), line 33, please add a space between "G.S." and "130A-2".*

**EMC Response: Corrections made. This is the new(p)(3). Please note that a reference in .0106(e) was changed due to this correction.**

*In (q)(4), line 35, please add a comma following "activities".*

**EMC Response: Corrections made. This is the new (p)(4). Please note that a reference in .0106(e) was changed due to this correction.**

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

Brian Liebman  
Commission Counsel

Date submitted to agency: April 27, 2022

REQUEST FOR CHANGES PURSUANT TO G.S. 150B-21.10

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02L .0108

**DEADLINE FOR RECEIPT: Wednesday, May 11, 2022.**

***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 email the reviewing attorney to inquire concerning the staff recommendation.

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

*In line 4, what does "midway" mean? This seems a little colloquial for the establishment of a boundary.*

**EMC Response: Corrections made. Deleted "midway" and added "half way".**

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

REQUEST FOR CHANGES PURSUANT TO G.S. 150B-21.10

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02L .0110

**DEADLINE FOR RECEIPT: Wednesday, May 11, 2022.**

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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 email the reviewing attorney to inquire concerning the staff recommendation.

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

*In (c), line 17, what does “best interest to public health and the environment” mean in this context?*

**EMC Response: Correction made for clarity. Changed the language to read, “The Director may require modification of a monitoring program or system or require additional monitoring of a contaminant or constituent of interest if new information indicates such modification or additional monitoring is necessary to protect public health or the environment.”**

*In (f), generally, does the penultimate sentence not conflict with the first sentence? The first sentence states that monitoring programs shall remain in effect until it is demonstrated that contaminant concentrations have been reduced “to a level at or below the standards” for 4 consecutive quarters. The penultimate sentence says that the Director shall furnish a letter stating no further action is required once he or she is satisfied that the standards have been met or corrective action is no longer necessary.*

**EMC Response: Corrections made. Deleted “have been met” and added “at or below standards”.**

*Also in (f), how can data trends indicate that concentrations “may” be increasing? Wouldn’t a “trend” indicate a definite direction?*

**EMC Response: Corrections made. Deleted “may be” and added “are”.**

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

Brian Liebman  
Commission Counsel

Date submitted to agency: April 27, 2022

REQUEST FOR CHANGES PURSUANT TO G.S. 150B-21.10

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02L .0111

**DEADLINE FOR RECEIPT: Wednesday, May 11, 2022.**

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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 email the reviewing attorney to inquire concerning the staff recommendation.

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

*With respect to the post-publication changes to (c)(9) and (d), were these changes made in response to public comment? Are they substantial changes pursuant to 150B-21.2(g)? If not, why?*

**EMC Response:** These changes were made based on staff recommendations during the public comment period. Although they look substantial, they are actually minor in nature.

**.0111(c)(9)** was added to the rule to be consistent with the current rule language. It was inadvertently left off during rule development, but does not change its meaning or impact. Therefore, this change would have no substantial effect on the proposed rule, and the change was specifically brought to the attention of the EMC at the time it adopted Rule.

**.0111(d)** was reorganized to be consistent with current rule language. The language in the proposed version stated, "shall include all of the information required in Paragraph (c) of this Rule and demonstrate that:". This inadvertently required items from an active correction action plan that are not applicable to a natural attenuation corrective action plan such as "plans and specifications, including engineering details". Natural attenuation requires no technology so this isn't applicable. The reorganized rule language merely removes all of the items that are not applicable to a natural attenuation corrective action plan and restates all of the items that are required for such a plan and, therefore, it does not meet the definition of a significant change.

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

Brian Liebman  
Commission Counsel

Date submitted to agency: April 27, 2022

REQUEST FOR CHANGES PURSUANT TO G.S. 150B-21.10

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02L .0113

**DEADLINE FOR RECEIPT: Wednesday, May 11, 2022.**

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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 email the reviewing attorney to inquire concerning the staff recommendation.

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

*In (c)(7), line 28, what does "serious" financial hardship mean?*

**EMC Response: No corrections made. The term is used within its ordinary meaning and Merriam-Webster defines "serious" as "excessive or impressive in quality, quantity, extent, or degree."**

*In (h), line 6, to whom must the final decision be "unacceptable"? The applicant? What does "unacceptable" mean in this context?*

**EMC Response: Corrections made. Deleted "If the Commission's final decision is unacceptable,". Started the sentence with "The applicant may file a petition for a contested case..."**

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

Brian Liebman  
Commission Counsel

Date submitted to agency: April 27, 2022



REQUEST FOR CHANGES PURSUANT TO G.S. 150B-21.10

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02L .0114

**DEADLINE FOR RECEIPT: Wednesday, May 11, 2022.**

***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 email the reviewing attorney to inquire concerning the staff recommendation.

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

*In (b), line 19, what is the difference between “predicted” and “expected”?*

**EMC Response: Corrections made. Added “through modeling” and “through professional judgment”.**

*In (b), lines 21-22, is the 30-day period referenced the same period that any “individuals interested in the request” have to submit comments? How are these comments to be submitted?*

**EMC Response: Corrections made. Deleted, “A final decision by the Director shall be postponed for a period of 30 days following receipt of the request so that the Director may consider comments submitted by individuals interested in the request.” Added, “Individuals interested in the request may submit written comments to the Director within 30 days of the receipt of the notification. The Director shall issue a final decision after considering the written comments.”**

*In the History Note, do you mean 143B-282(b)(2)b?*

**EMC Response: Correction made. The original reference appears to have been made as a result of a typographical error. The correct reference should be 143B-282(a)(2)(c), which says, “To implement water and air quality reporting pursuant to Part 7 of Article 21 of Chapter 143 of the General Statutes.”**

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

Brian Liebman  
Commission Counsel

Date submitted to agency: April 27, 2022

1 15A NCAC 02L .0101 is readopted as published in 36:08 NCR 601 as follows:

2  
3 **SUBCHAPTER 2L - GROUNDWATER CLASSIFICATION AND STANDARDS**

4  
5 **SECTION .0100 - GENERAL CONSIDERATIONS**

6  
7 **15A NCAC 02L .0101 ~~AUTHORIZATION~~PURPOSE**

8 (a) N.C. General Statute 143-214.1 directs that the Commission develop and adopt after proper study a series of  
9 classifications and standards which will be appropriate for the purpose of classifying each of the waters of the ~~state~~  
10 State in such a way as to promote the policy and purposes of the act. Pursuant to this statute, the ~~rules~~Rules in Sections  
11 .0200 and .0300 of this Subchapter establish a series of classifications and water quality standards applicable to the  
12 groundwaters of the ~~state~~State.

13 (b) ~~These~~The ~~rules~~Rules in Section .0100 of this Subchapter ~~are shall applicable~~apply to all permitted and  
14 unpermitted activities or actions, intentional or accidental, ~~which that~~ contribute to the degradation of groundwater  
15 quality, regardless of any permit issued by a governmental agency authorizing such action or ~~activity~~activity. ~~except~~  
16 ~~an~~An innocent landowner who is a bona fide purchaser of property which contains a source of groundwater  
17 contamination, who purchased such property without knowledge or a reasonable basis for knowing that groundwater  
18 contamination had occurred, or a person whose interest or ownership in the property is based or derived from a security  
19 interest in the property, shall not be considered a responsible party.

20  
21 *History Note: Authority G.S. 143-214.1; 143-214.2; 143-215.3(a)(1); 143B-282;*

22 *Eff. June 10, 1979;*

23 *Amended Eff. August 1, 1989; July 1, 1988; September 1, 1984; December 30, 1983;*

24 *Readopted Eff. June 1, 2022.*

1 15A NCAC 02L .0102 is readopted as published in 36:08 NCR 601 with changes as follows:

2  
3 **15A NCAC 02L .0102 DEFINITIONS**

4 The definition of any word or phrase used in ~~these the Rules in this Subchapter~~ shall be the same as given in G.S.  
5 143-212 and G.S. 143-213 except that the following words and phrases shall have the following meanings:

6 (1) “Active remediation” means corrective action that includes active physical, biological, or chemical  
7 manipulation of groundwater or of the rock or soil media for the purpose of reducing the amount of  
8 contamination or minimizing the spread of contamination.

9 (2) “Anthropogenic” means of, relating to, or resulting from the influence of human beings on nature.

10 (3) “Background threshold values” mean statistically derived values of the concentrations of substances  
11 in environmental media not affected by site conditions, actions, or activities for use as a basis for  
12 compliance with the Rules in this Subchapter.

13 ~~(4)~~(4) “Bedrock” means any consolidated rock encountered in the place in which it was formed or  
14 deposited and which cannot be readily excavated without the use of explosives or power equipment.

15 ~~(2)~~ “Commission” means the Environmental Management Commission as organized under G.S. 143B.

16 ~~(3)~~(5) “Chief administrative officer” shall be, for the purposes of this Rule, the mayor, chairman of the  
17 county commissioners, the county manager, or the city manager who is responsible for  
18 environmental issues in their jurisdiction.

19 (6) “Compliance boundary” means a boundary around the a waste disposal area of a disposal system at  
20 and beyond which groundwater quality standards may not be exceeded and only applies to facilities  
21 which have received a an individual permit issued under the authority of G.S. 143-215.1 or G.S.  
22 130A. ~~143-215.1,~~ 143-215.1, Article 9 of G.S. 130A, or Article 11 of G.S. 130A.

23 (7) “Compliance zone” means the area encompassed within the compliance boundary.

24 (8) “Constituent of interest” means any substance that is manmade or naturally occurring that is ~~or may~~  
25 be associated with or influenced by site activities or actions and that is of interest to the protection  
26 of public health ~~and~~ or the environment.

27 ~~(4)~~(9) “Contaminant” means any substance ~~occurring that occurs~~ in groundwater as a result of  
28 anthropogenic sources or activities in concentrations which exceed the groundwater quality  
29 standards specified in Rule .0202 of this Subchapter standards.

30 (10) “Control” means the ability to ~~direct, restrain,~~ physically, mechanically, or chemically influence  
31 sources of contamination and contaminant distribution.

32 ~~(5)~~(11) “Corrective action plan” means a plan for ~~controlling or eliminating~~ sources of groundwater  
33 contamination or for ~~restoring groundwater quality, achieving groundwater quality restoration or~~  
34 both.

35 ~~(6)~~(12) “Director” means Director of the Division of ~~Environmental Management~~ Water Resources or  
36 Waste Management or their delegate.

- 1 ~~(7)~~(13) "Division" means the Division of ~~Environmental Management.~~Water Resources or Waste  
2 Management.
- 3 ~~(8)~~(14) "Exposure pathway" means a course taken by a contaminant by way of a transport medium after its  
4 release to the environment.
- 5 ~~(9)~~(15) "Free product" means a non-aqueous phase liquid which may be present within the saturated zone  
6 or in surface water.
- 7 ~~(10)~~(16) "Fresh ~~groundwaters~~waters" means those groundwaters having a chloride concentration equal to  
8 or less than 250 milligrams per liter.
- 9 ~~(11)~~(17) "Groundwaters" means ~~those~~ waters occurring in the subsurface under saturated conditions.
- 10 ~~(12)~~(18) "Hazardous substance" means any substance as defined by ~~Section 101(14) of the Comprehensive~~  
11 ~~Environmental Response, Compensation and Liability Act of 1980 (CERCLA).~~42 U.S.C. 9601(14).
- 12 ~~(13)~~(19) "Licensed geologist" means a person who has been ~~duly~~ licensed as a geologist in accordance with  
13 the requirements of G.S. 89E.
- 14 (20) "Licensed soil scientist" means a person who has been licensed as a soil scientist in accordance with  
15 the requirements of G.S. 89F.
- 16 ~~(14)~~(21) "Natural ~~remediation~~attenuation" means those natural processes acting to restore groundwater  
17 quality, including dilution, filtration, sorption, ion-exchange, chemical ~~transformation~~  
18 transformation, and biodegradation.
- 19 (22) "Natural conditions or naturally occurring" means the physical, biological, ~~chemical,~~ chemical, and  
20 radiological conditions which occur naturally and are not a result of anthropogenic sources or  
21 activities.
- 22 (23) "Person" shall be as defined in G.S. 130A-290(22).
- 23 (24) "Potable waters" means those waters suitable for drinking by humans.
- 24 ~~(15)~~(25) "Practical Quantitation Limit" means the lowest concentration of a given material that can be  
25 reliably achieved ~~among laboratories~~ by a particular analytical technique operated within specified  
26 ~~limits of precision and accuracy by~~ parameters of a given analytical method during routine  
27 laboratory ~~analysis.~~ analysis while following all applicable state or federal quality assurance and  
28 quality control requirements.
- 29 ~~(16) "Natural conditions" means the physical, biological, chemical and radiological conditions which~~  
30 ~~occur naturally.~~
- 31 ~~(17) "Potable waters" means those waters suitable for drinking by humans.~~
- 32 ~~(18)~~(26) "Professional Engineer" means a person who has been ~~duly~~ registered and licensed as a professional  
33 engineer in accordance with the requirements of G.S. 89C.
- 34 ~~(19)~~(27) "Receptor" ~~means any human, plant, animal, or structure which is, or has the potential to be,~~  
35 ~~adversely effected by the release or migration of contaminants. Any well constructed for the~~  
36 ~~purpose of monitoring groundwater and contaminant concentrations shall not be considered a~~

1 ~~receptor~~ is as defined in G.S. 130A-309.201 and, for the purposes of this Rule, shall also include  
2 waters of the State as defined in G.S. 143-212(6).

3 ~~(20)~~(28) "Review boundary" means a boundary around a permitted waste disposal facility, ~~area~~ midway  
4 between a waste boundary and a compliance boundary at which groundwater monitoring ~~is~~ may be  
5 required.

6 ~~(21)~~ "Saline groundwaters" means those groundwaters having a chloride concentration of more than 250  
7 mg/l.

8 ~~(22)~~(29) "Saturated zone" means that part of the subsurface below the water table in which all the  
9 interconnected voids are filled with water under pressure at or greater than atmospheric. It does not  
10 include the capillary fringe.

11 ~~(30)~~ "Secretary" means the Secretary of the Department of Environmental Quality or ~~their~~ his or her  
12 delegate.

13 ~~(23)~~(31) ~~"Standards"~~ "Standard" or "standards" means groundwater quality standards as specified in Rule  
14 .0202 of this ~~Subchapter~~. Subchapter and any interim maximum allowable concentrations  
15 established by the Director per Rule .0202(c) of this Subchapter.

16 ~~(24)~~(32) "Suitable for drinking" means a quality of water ~~which that~~ does not contain substances in  
17 concentrations which, either singularly or in ~~combination~~ combination, if ingested into the human  
18 body, may cause death, disease, behavioral abnormalities, congenital defects, genetic mutations, or  
19 result in an incremental lifetime cancer risk in excess of  $1 \times 10^{-6}$ , or ~~render the water unacceptable~~  
20 ~~result in adverse effects to the consumer~~ due to aesthetic qualities, including taste, ~~odor~~ odor, or  
21 appearance.

22 ~~(25)~~ "Time of travel" means the time required for contaminants in groundwater to move a unit distance.

23 ~~(26)~~(33) "Waste boundary" means the perimeter of the permitted waste disposal area.

24 ~~(34)~~ "Waste disposal area" means that portion of a disposal system permitted under authority of G.S 143-  
25 215.1, Article 9 of G.S. 130A, or Article 11 of G.S. 130A whose purpose is the temporary or  
26 permanent disposal of waste.

27 ~~(27)~~(35) "Water table" means the surface of the saturated zone below which all interconnected voids are  
28 filled with water and at which the pressure is atmospheric.

29  
30 *History Note:* Authority G.S. 143-214.1; 143-215; 143B-282;  
31 Eff. June 10, 1979.  
32 Amended Eff. October 1, 1993; August 1, 1989; July 1, 1988; March 1, 1985;  
33 Readopted Eff. June 1, 2022.

1 15A NCAC 02L .0103 is readopted as published in 36:08 NCR 603 with changes as follows:

2  
3 **15A NCAC 02L .0103 POLICY**

4 (a) The rules established in this Subchapter are intended to maintain and preserve the quality of the groundwaters,  
5 prevent and abate pollution and contamination of the waters of the ~~state, State~~ protect public health, and permit  
6 management of the groundwaters for their best ~~usage, usage by the citizens of North Carolina~~. It is the policy of the  
7 Commission that the best usage of the groundwaters of the ~~state State~~ is as a source of drinking water. These  
8 groundwaters generally are a potable source of drinking water without the necessity of significant treatment. It is the  
9 intent of these Rules to protect the overall high quality of North Carolina's groundwaters to the level established by  
10 the standards and to enhance and restore the quality of degraded groundwaters where feasible and necessary to protect  
11 human health and the environment, or to ensure their suitability as a future source of drinking water.

12 (b) ~~It is the intention of the Commission to protect all groundwaters to a level of quality at least as high as that required~~  
13 ~~under the standards established in Rule .0202 of this Subchapter. In keeping with the policy of the Commission to~~  
14 ~~protect, maintain, and enhance groundwater quality within the State of North Carolina, the~~ The Commission will  
15 shall not approve any disposal system subject to the provisions of G.S. 143-215.1 which would result ~~in~~ in any of the  
16 following:

- 17 (1) ~~the~~ The significant degradation of groundwaters which have existing quality that is better than the  
18 assigned standard, unless such degradation is found to be in the best interests of the ~~citizens of North~~  
19 ~~Carolina~~ public based upon the projected economic benefits of the facility and ~~a determination that~~  
20 public health will be ~~protected, or protected~~.
- 21 (2) ~~a~~ A violation of a ~~groundwater quality~~ standard beyond a designated compliance ~~boundary,~~  
22 ~~or boundary as a result of the permitted activities.~~
- 23 (3) ~~the~~ The impairment of existing groundwater uses or increased risk to ~~the public health or safety of~~  
24 ~~the public~~ due to the operation of a ~~waste~~ disposal system.

25 (c) Violations of the standards resulting from groundwater withdrawals which are in compliance with water use  
26 permits issued pursuant to G.S. 143-215.15, shall not be subject to the corrective action requirements of Rule .0106  
27 of this ~~Subchapter~~ Section.

28 (d) No person shall conduct or cause to be conducted, any activity which causes the concentration of any substance  
29 to exceed ~~that specified in Rule .0202 of this Subchapter,~~ the standards, except as authorized by the rules of this  
30 Subchapter.

31 (e) Work that is within the scope of the practice of geology and engineering, performed pursuant to the requirements  
32 of this Subchapter, ~~which that~~ involves site assessment, the interpretation of ~~subsurface~~ geologic conditions,  
33 preparation of ~~conceptual~~ corrective action ~~plans~~ plans, or any work requiring detailed technical knowledge of site  
34 conditions which is submitted to the Director, shall be performed by persons, ~~firms~~ firms, or professional corporations  
35 who are ~~duly~~ licensed to offer geological or engineering services by the appropriate occupational licensing board or  
36 are exempted from such licensing by G.S. 89E-6. Work which involves design of remedial systems or specialized  
37 construction techniques shall be performed by persons, ~~firms~~ firms, or professional corporations who are ~~duly~~ licensed

1 to offer engineering services. Corporations that are authorized by law to perform engineering or geological services  
2 and are exempt from the Professional Corporation Act, G.S. 55B, may perform these services.

3  
4 *History Note: Authority G.S. ~~143-214~~; 143-214.1; 143-214.2; ~~143-215.3(e)~~; 143-215.3(a)(1);*

5 *143B-282;*

6 *Eff. June 10, 1979;*

7 *Amended Eff. August 1, 1989; July 1, 1988; September 1, 1984; December 30, 1983;*

8 *RRC Objection Eff. September 17, 1993, due to lack of necessity for Paragraph (e);*

9 *Amended Eff. November 4, 1993;*

10 *Readopted Eff. June 1, 2022.*

1 15A NCAC 02L .0104 is readopted as published in 36:08 NCR 603 with changes as follows:

2  
3 **15A NCAC 02L .0104 RESTRICTED DESIGNATION (RS)**

4 (a) ~~The RS designation~~restricted designation (RS) ~~serves as a warning means~~ that groundwater so designated may not  
5 be suitable for use as a drinking water supply without treatment. ~~The designation is temporary and will be removed~~  
6 ~~by the Director upon a determination that the quality of the groundwater so designated has been restored to the level~~  
7 ~~of the applicable standards or when the groundwaters have been reclassified by the Commission. The Director is~~  
8 ~~authorized to designate GA or GSA groundwaters as RS under any of the following circumstances:~~

9 (1) ~~Where, as a result of man's activities, groundwaters have been contaminated and the Director has approved~~  
10 ~~a corrective action plan, or termination of corrective action, that will not result in the immediate restoration of such~~  
11 ~~groundwaters to the standards established under this Subchapter.~~

12 (2) ~~Where a statutory variance has been granted as provided in Rule .0113 of this Subchapter.~~

13 (b) Upon application by a responsible party, [The] the Director is authorized to apply the RS to GA or GSA  
14 groundwaters, as defined under Rule .0201 of this Subchapter, under any of the following circumstances:

15 (1) For sites undergoing risk-based remediation per Rule .0106(i) of this Section.

16 (2) Areas of remaining contamination where the Secretary has approved the termination of an approved  
17 corrective action per Rule .0106(j) of this Section.

18 (3) Where a variance has been granted by the Commission as provided in Rule .0113 of this Section.

19 ~~(b)(c)~~ Groundwaters occurring within an area defined by a compliance boundary in a waste disposal permit are  
20 deemed to be designated RS.

21 ~~(e)(d)~~ The boundary of a designated RS ~~the RS~~ area may be approximated in the absence of analytical data sufficient  
22 to define the dimension of the area. The boundary shall be located at least 250 feet or greater away from the predicted  
23 edge boundary of the contaminant plume, plume and shall include any areas into which the contamination is predicted  
24 through modeling or expected through professional judgment to migrate. ~~[Predictive modeling may be used to~~  
25 ~~supplement site specific sample data in characterizing the current and predicted future extent of the plume.]~~

26 ~~(d)~~ In areas designated RS, the person responsible for groundwater contamination shall establish and implement a  
27 groundwater monitoring system sufficient to detect changes in groundwater quality within the RS designated area.  
28 Monitoring shall be quarterly for the first year and may be reduced to semi-annually thereafter until the applicable  
29 standards have been achieved. If during the monitoring period, contaminant concentrations increase, additional  
30 remedial action or monitoring pursuant to these Rules may be required.

31 ~~(e)~~ The applicant for an RS designation shall also provide written verification that all property owners within and  
32 adjacent to the proposed RS area have been notified of the requested RS designation.

33 ~~(e)~~ Where the RS area crosses, intercepts, or adjoins surface waters, the RS shall not give the right to cause or  
34 contribute to an exceedance of the surface water standards established [under 15A.] under 15A NCAC 02B .0200.

35 (f) Application for RS. The person requesting a RS shall provide to the Director a plan that includes the following:

36 (1) The person's name, address, and phone number.

37 (2) The physical location of the of facility or site where the contamination originated.



1 (3) If applicable, a copy of the Secretary's approval for termination of corrective action or a variance granted  
2 by the Commission as provided in Rule .0113 of this Section.

3 (4) A summary of the site assessment and corrective actions including the results of any predictive modeling  
4 that estimates the time to return compliance for the RS area.

5 (5) Maps showing the current horizontal and vertical extent of any contamination and the areas where the  
6 contamination is predicted or expected to migrate including the current and predicted quantities of  
7 any contaminants and all current and potential future receptors within 1,500 feet of contamination.

8 (6) A map showing the proposed RS area including the county title number, county tax identification number,  
9 or the property tax book and page identifiers of the properties included within the proposed RS area.

10 (7) A plan for monitoring the groundwater quality within the RS area that includes the current or proposed  
11 wells to be monitored, the frequency of the monitoring, and the constituents of interest to be  
12 monitored.

13 (8) If the proposed RS area extends beyond the source property's boundary, a signed statement from each  
14 property owner agreeing to the proposed RS area on their property if required by [programmatic]  
15 statute.

16 (9) If the proposed RS area crosses, intercepts, or adjoins surface waters, a plan to ensure the surface water  
17 standards established under 15A NCAC 02B .0200 are not violated.

18 (g) The Director shall review [the proposed plan and] whether the proposed plan is protective of public health and  
19 the environment for receptors within the RS area and otherwise complies with requirements of this Rule. [The Director  
20 may require a person who proposes a plan to supply any additional information not provided that is necessary to satisfy  
21 the requirements of Paragraph (f) of this Rule.

22 (f)(h) Prior to approving the proposed plan in Paragraph (f) of this Rule, [The] the Division shall provide public notice  
23 of the intent to designate any groundwater with RS in accordance with the following requirements: as follows:

24 (1) Notice shall be published [Publish] Provide notice at least 30 days prior to any proposed final action  
25 in accordance with G.S. 143-215.4. [G.S. 143-215.4] In addition, notice shall be provided to all  
26 property owners identified pursuant to Paragraph (e) of this Rule and to the local County Health  
27 Director and the chief administrative officer of the political jurisdiction(s) in which the  
28 contamination occurs. [and provide such notice] to all property owners with signed statements per  
29 [Paragraph] Subparagraph (f)(8) of this Rule, to the local County Health Director, and the chief  
30 administrative officer of the jurisdiction(s) in which the contamination occurs.

31 (2) The notice shall contain the following information:

32 (A) name, Name, address, and phone number of the agency issuing the public notice;

33 (B) A copy of the plan in Paragraph (f) of this Rule or where the plan can be obtained.

34 (B) the location and extent of the designated area;

35 (C) the county title number, county tax identification number, or the property tax book and  
36 page identifiers;

1 (D) ~~— a brief description of the action or actions which resulted in the degradation of groundwater~~  
2 ~~in the area;~~

3 (E) ~~— actions or intended actions taken to restore groundwater quality;~~

4 (F) ~~— the significance of the RS designation;~~

5 (G)(C) ~~conditions~~ Conditions applicable to removal of the RS designation; and

6 (H)(D) ~~address~~ Address and phone number of a Division contact from whom interested parties  
7 may obtain further information.

8 (3) The Director shall consider all requests for a public hearing, and if he or she [they] ~~determines~~  
9 ~~determine~~ that there is significant public ~~interest~~ he interest, he or she shall issue public notice and  
10 hold a public hearing in accordance with G.S 143-215.4(b) and Rule ~~.0113(e)~~ .0113(e)(2) of this  
11 Section.

12 (4) ~~These~~ The requirements of this Paragraph shall not apply to groundwaters defined in Paragraph  
13 ~~(b)(c)~~ of this Rule.

14 (i) The Director shall approve the plan if the proposal complies with [requirements] Paragraph (g) of this Rule. Upon  
15 making a determination, the Director shall provide specific findings to support their decision to approve or disapprove  
16 a proposed [plan] plan. [and may require a person who proposes a plan to supply any additional information not  
17 provided in Paragraph (f) of this Rule necessary to make their determination.]

18 (j) The process for recordation, application, and removal of an approved RS [area] shall be in accordance with G.S.  
19 143B-279.10 or G.S. 143B-279.11. The land use restriction shall be that groundwater within the RS [area] may not be  
20 suitable for drinking without treatment.

21 (k) The RS shall also be removed if the groundwater within the RS is reclassified by the Commission per G.S. 143-  
22 214.1.

23  
24 *History Note: Authority G.S. 143-214.1; 143-215.3(a)(1); ~~143B-282(2); 143B-282(a)(2); 143B-279.9; 143B-~~*  
25 *279.10; 143B-279.11*

26 *Eff. June 10, 1979;*

27 *Amended Eff. October 1, 1993; December 1, 1989; August 1, 1989; December 30, 1983;*

28 *Readopted Eff. June 1, 2022.*

1 15A NCAC 02L .0106 is readopted as published in 36:08 NCR 605 with changes as follows:

2  
3 **15A NCAC 02L .0106 INITIAL RESPONSE, SITE ASSESSMENT, AND CORRECTIVE ACTION**

4 (a) Where groundwater quality has been degraded, the ~~goal of any~~ required corrective action shall be restoration to  
5 the level of the standards, or as closely thereto as is economically and technologically feasible ~~as determined by the~~  
6 ~~Department~~ in accordance with this Rule. The corrective action strategies addressed in this Rule can be through either  
7 active remediation in Paragraph (g), natural attenuation in Paragraph (h), or risk-based remediation in Paragraph (i).  
8 In all cases involving requests to the ~~Secretary, as defined in 15A NCAC 02C .0102;~~ Secretary for approval of  
9 corrective action ~~plans,~~ plans or termination of corrective action, the responsibility for providing all information  
10 required by this Rule lies with the person(s) making the request.

11 (b) Any person conducting or controlling an ~~activity~~ activity, permitted or unpermitted, that results in the discharge  
12 of a waste or hazardous substance or oil to the ground surface, vadose zone, or groundwaters of the State, or in  
13 proximity thereto, State shall take action upon discovery to terminate and control the discharge, mitigate any hazards  
14 resulting from exposure to the ~~pollutants~~ contaminants, and ~~notify the Department, as defined in 15A NCAC 02C~~  
15 ~~.0102, of the discharge,~~ follow the [steps] requirements in Paragraphs (c), (d), or (e) of this Rule.

16 (c) Any person conducting or controlling an activity that has not been permitted by the Department pursuant to G.S.  
17 143-215.1, Article 9 of G.S. 130A, or Article 11 of G.S. 130A ~~and~~ that results in an increase in the concentration of a  
18 substance in excess of the standard, other than agricultural ~~operations,~~ operations defined under G.S. 106-581.1,  
19 ~~shall;~~ shall take the following steps:

- 20 (1) ~~within~~ Within 24 hours of discovery of the violation, notify the Department of the activity that has  
21 resulted in the increase and the contaminant concentration ~~levels;~~ levels, if known.
- 22 (2) ~~respond~~ Respond in accordance with Paragraph (f) of this ~~Rule;~~ Rule.
- 23 (3) ~~submit a report to the Secretary assessing the cause, significance, and extent of the violation; and~~
- 24 (4) ~~implement an approved corrective action plan for restoration of groundwater quality in accordance~~  
25 ~~with a schedule established by the Secretary. In establishing a schedule, the Secretary shall consider~~  
26 ~~a schedule proposed by the person submitting the plan. A report shall be made to the Health Director~~  
27 ~~of the county or counties in which the contamination occurs in accordance with the requirements of~~  
28 ~~Rule .0114(a) in this Section.~~
- 29 (3) Implement a monitoring program in accordance with Rule .0110 of this Section.
- 30 (4) Submit a site assessment report to the Director in accordance with Rule .0111 of this Section.
- 31 (5) Submit a notification in accordance with the requirements of Rule .0114(a) of this Section.
- 32 (6) If required, submit a corrective action plan to the Director in accordance with Rule .0111 of this  
33 Section or pursue risk-based remediation per Paragraph (i) of this Rule. If a corrective action plan  
34 is submitted for active remediation or natural attenuation, then:
  - 35 (A) Submit a notification in accordance with the requirements of Rule .0114(b) of this  
36 Section.
  - 37 (B) Implement **the** corrective action plan upon its approval by the Secretary.

1 (C) Submit a notification in accordance with the requirements of Rule .0114(c) of this  
2 Section.

3 ~~Any activity not permitted pursuant to G.S. 143-215.1 or G.S. 130A-294 shall, for the purpose of this Rule, be deemed~~  
4 ~~not permitted by the Department and subject to the provisions of this Paragraph.~~

5 (d) ~~For Any any person conducting or controlling an activity that is conducted under the authority of a permit initially~~  
6 ~~issued by the Department on or after December 30, 1983 pursuant to G.S. 143-215.1 143-215.1, Article 9 of G.S. 130A,~~  
7 ~~or Article 11 of G.S. 130A, or G.S. 130A-294 and that results in an increase in concentration of a substance in excess~~  
8 ~~of the ~~standards~~ standards at or beyond the review boundary:~~

9 (1) ~~at or beyond a review boundary. The Director may require, based on information including data~~  
10 ~~trends, geologic and hydrogeologic conditions, and spacing between the review and compliance~~  
11 ~~boundaries, that the person shall demonstrate, through predictive calculations or modeling, that one~~  
12 ~~or more of the following ~~natural site conditions, facility design and operational controls~~ will prevent~~  
13 ~~a violation of standards at the compliance ~~boundary~~ boundary:~~

14 ~~(A) geologic or hydrogeologic conditions;~~

15 ~~(B) facility design; or~~

16 ~~(C) operational controls.~~

17 ~~Alternately, the person may submit a plan for alteration of existing site conditions, facility design,~~  
18 ~~or operational controls that will prevent a violation at the compliance boundary, and implement that~~  
19 ~~plan upon its approval by the Secretary.~~

20 (2) ~~at or beyond a compliance boundary: the person shall respond in accordance with Paragraph (f) of~~  
21 ~~this Rule, assess the cause, significance and extent of the violation of standards and submit the~~  
22 ~~results of the investigation, and a plan and proposed schedule for corrective action to the Secretary.~~  
23 ~~The permittee shall implement the plan as approved by and in accordance with a schedule~~  
24 ~~established by the Secretary. In establishing a schedule the Secretary shall consider any schedule~~  
25 ~~proposed by the permittee, the scope of the project, the extent of contamination, and the corrective~~  
26 ~~action being proposed. If an exceedance of the standards is expected through professional judgment~~  
27 ~~or predicted through modeling at or beyond the compliance boundary, the person may submit a plan~~  
28 ~~for alteration of existing site conditions, facility design, or operational controls that will prevent a~~  
29 ~~violation at the compliance boundary, and implement that plan upon its approval by the Director.~~  
30 ~~In approving the plan, the Director shall consider geologic and hydrogeologic conditions, the nature~~  
31 ~~and extent of the contamination, technical and economic feasibility, and public health impacts on~~  
32 ~~all potential receptors should the contaminated plume reach them.~~

33 (e) ~~For any person conducting or controlling an activity that is conducted under the authority of a permit issued by~~  
34 ~~the Department pursuant to G.S. 143-215.1, Article 9 of G.S. 130A, or Article 11 of G.S. 130A that results in an~~  
35 ~~increase in concentration of a substance in excess of the standards beyond the compliance boundary or within the~~  
36 ~~compliance zone as specified by Rule ~~[.0107(e)]~~ .0107(p) of this Section, the person shall take the following steps:~~

1           (1) Within 24 hours of discovery of the initial violation, notify the Department of the activity that has  
2           resulted in the increase, the contaminants that are in exceedance, and the contaminant concentration  
3           levels.

4           (2) Respond in accordance with Paragraph (f) of this Rule.

5           (3) Implement a monitoring program in accordance with Rule .0110 of this Section.

6           (4) Submit a site assessment report to the Director in accordance with Rule .0111 of this Section.

7           (5) Submit a notification in accordance with the requirements of Rule .0114(a) of this Section.

8           (6) If required, submit a corrective action plan to the Director in accordance with Rule .0111 of this  
9           Section or pursue risk-based remediation per Paragraph (i) of this Rule. The corrective action plan  
10           may include alteration of existing site conditions, facility design, or operational controls that will  
11           prevent a violation at the compliance boundary. If a corrective action plan is submitted for active  
12           remediation or natural attenuation, then:

13           (A) Submit a notification in accordance with the requirements of Rule .0114(b) of this Section.

14           (B) Implement ~~an approved~~the corrective action plan upon its approval by the Secretary.

15           (C) Submit a notification in accordance with the requirements of Rule .0114(c) of this Section.

16 ~~(e) Any person conducting or controlling an activity that is conducted under the authority of a permit initially issued~~  
17 ~~by the Department prior to December 30, 1983 pursuant to G.S. 143-215.1 or G.S. 130A-294, and that results in an~~  
18 ~~increase in concentration of a substance in excess of the standards at or beyond the compliance boundary specified in~~  
19 ~~the permit, shall:~~

20           ~~(1) within 24 hours of discovery of the violation, notify the Department of the activity that has resulted~~  
21           ~~in the increase and the contaminant concentration levels;~~

22           ~~(2) respond in accordance with Paragraph (f) of this Rule;~~

23           ~~(3) submit a report to the Secretary assessing the cause, significance and extent of the violation; and~~

24           ~~(4) implement an approved corrective action plan for restoration of groundwater quality at or beyond~~  
25           ~~the compliance boundary, in accordance with a schedule established by the Secretary. In establishing~~  
26           ~~a schedule the Secretary shall consider any schedule proposed by the person submitting the plan. A~~  
27           ~~report shall be made to the Health Director of the county or counties where the contamination occurs~~  
28           ~~in accordance with the requirements of Rule .0114(a) in this Section.~~

29 (f) Initial response actions required to be conducted prior to or concurrent with the site assessment required in  
30 Paragraphs ~~(e), (d), or (e)(c)~~ and (e) of this Rule shall include:

31           (1) Prevention of fire, explosion, or the spread of noxious ~~fumes;~~fumes.

32           (2) Abatement, containment, or control of the migration of ~~contaminants;~~contaminants.

33           (3) Removal, treatment, or control of any primary pollution source such as buried waste, waste  
34           stockpiles, or surficial accumulations of free ~~products;~~products.

35           (4) Removal, treatment, or control of secondary pollution sources that would be potential continuing  
36           sources of pollutants to the groundwaters, such as contaminated soils and non-aqueous phase liquids.  
37           Contaminated soils that threaten the quality of groundwaters shall be treated, contained, or disposed

1 of in accordance with ~~rules~~ Rules in this ~~Chapter~~ Subchapter and in 15A NCAC 13 applicable to  
2 such activities. The treatment or disposal of contaminated soils shall be conducted in a manner that  
3 will not result in a violation of ~~the standards or North Carolina Hazardous Waste Management rules.~~  
4 standards or 15A NCAC 13 Rules.

5 The initial response actions shall be documented in the site assessment report required under Rule .0111(b)  
6 of this Section. The Director may request written documentation of the response actions in advance of the  
7 site assessment report **if the Director determines that** there is an immediate threat to human ~~[health.] health~~  
8 **based on information including the nature and extent of the release, the potential exposure pathways, and**  
9 **proximity to human receptors.**

10 ~~(g) The site assessment conducted pursuant to the requirements of Paragraphs (c), (d), or (e) of this Rule, shall include:~~

- 11 ~~(1) The source and cause of contamination;~~
- 12 ~~(2) Any imminent hazards to public health and safety, as defined in G.S. 130A-2, and any actions taken~~  
13 ~~to mitigate them in accordance with Paragraph (f) of this Rule;~~
- 14 ~~(3) All receptors and significant exposure pathways;~~
- 15 ~~(4) The horizontal and vertical extent of soil and groundwater contamination and all significant factors~~  
16 ~~affecting contaminant transport; and~~
- 17 ~~(5) Geological and hydrogeological features influencing the movement, chemical, and physical~~  
18 ~~character of the contaminants.~~

19 ~~Reports of site assessments shall be submitted to the Department as soon as practicable or in accordance with a~~  
20 ~~schedule established by the Secretary. In establishing a schedule the Secretary shall consider a proposal by the person~~  
21 ~~submitting the report.~~

22 ~~(h) Corrective action plans for restoration of groundwater quality, submitted pursuant to Paragraphs (c), (d), and (e)~~  
23 ~~of this Rule shall include:~~

- 24 ~~(1) A description of the proposed corrective action and reasons for its selection;~~
- 25 ~~(2) Specific plans, including engineering details where applicable, for restoring groundwater quality;~~
- 26 ~~(3) A schedule for the implementation and operation of the proposed plan; and~~
- 27 ~~(4) A monitoring plan for evaluating the effectiveness of the proposed corrective action and the~~  
28 ~~movement of the contaminant plume.~~

29 ~~(i) In the evaluation of corrective action plans, the Secretary shall consider the extent of any violations, the extent of~~  
30 ~~any threat to human health or safety, the extent of damage or potential adverse impact to the environment, technology~~  
31 ~~available to accomplish restoration, the potential for degradation of the contaminants in the environment, the time and~~  
32 ~~costs estimated to achieve groundwater quality restoration, and the public and economic benefits to be derived from~~  
33 ~~groundwater quality restoration.~~

34 ~~(j)(g) Corrective action using active remediation. A corrective action plan prepared pursuant to Paragraphs (c), (d),~~  
35 ~~or (e)(c) or (e) of this Rule shall be implemented using a remedial technology demonstrated **to the Director** to provide~~  
36 ~~the most effective means, taking into consideration geological and hydrogeological conditions at the contaminated~~  
37 ~~site, for restoration of groundwater quality to the level of the standards. Corrective action plans prepared pursuant to~~

1 Paragraphs (c) or (e) of this Rule may request an exception as provided in Paragraphs (k), (l), (m), (r), and (s) of this  
2 Rule. Corrective action plans for active remediation shall include the information in Rule .0111(c) of this Section.

3 ~~(k) Any person required to implement an approved corrective action plan for a site subject to Paragraphs (c) or (e) of  
4 this Rule may request that the Secretary approve such a plan without requiring groundwater remediation to the  
5 standards. A request submitted to the Secretary under this Paragraph shall include a description of site specific  
6 conditions, including information on the availability of public water supplies for the affected area; the technical basis  
7 for the request; and any other information requested by the Secretary to evaluate the request in accordance with  
8 Subparagraphs (1) through (7) of this Paragraph. The person making the request shall demonstrate:~~

9 ~~(1) — that all sources of contamination and free product have been removed or controlled pursuant to  
10 Paragraph (f) of this Rule;~~

11 ~~(2) — that the time and direction of contaminant travel can be predicted with reasonable certainty;~~

12 ~~(3) — that contaminants have not and will not migrate onto adjacent properties, or that:~~

13 ~~(A) — such properties are served by an existing public water supply system dependent on surface  
14 waters or hydraulically isolated groundwater; or~~

15 ~~(B) — the owners of such properties have consented in writing to the request;~~

16 ~~(4) — that the standards specified in Rule .0202 of this Subchapter will be met at a location no closer than  
17 one year time of travel upgradient of an existing or foreseeable receptor, based on travel time and  
18 the natural attenuation capacity of subsurface materials or on a physical barrier to groundwater  
19 migration that exists or will be installed by the person making the request;~~

20 ~~(5) — that, if the contaminant plume is expected to intercept surface waters, the groundwater discharge  
21 will not possess contaminant concentrations that would result in violations of standards for surface  
22 waters contained in 15A NCAC 02B .0200;~~

23 ~~(6) — that public notice of the request has been provided in accordance with Rule .0114(b) of this Section;  
24 and~~

25 ~~(7) — that the proposed corrective action plan would be consistent with all other environmental laws.~~

26 ~~(4)(h) Corrective action using natural attenuation. Any person required to implement an approved corrective action  
27 plan for a site subject to Paragraphs (c) or (e) of this Rule may request that the Secretary approve such a plan based  
28 upon natural processes of degradation and attenuation of contaminants. Corrective action plans for natural attenuation  
29 shall make the demonstration and include the information in Rule .0111(d) of this Section. A request submitted to the  
30 Secretary under this Paragraph shall include a description of site specific conditions, including written documentation  
31 of projected groundwater use in the contaminated area based on current state or local government planning efforts;  
32 the technical basis for the request; and any other information requested by the Secretary to evaluate the request in  
33 accordance with Subparagraphs (1) through (10) of this Paragraph. The person making the request shall demonstrate:~~

34 ~~(1) — that all sources of contamination and free product have been removed or controlled pursuant to  
35 Paragraph (f) of this Rule;~~

36 ~~(2) — that the contaminant has the capacity to degrade or attenuate under the site specific conditions;~~

- 1 (3) — that the time and direction of contaminant travel can be predicted based on subsurface conditions  
2 and the contaminant's physical and chemical properties;
- 3 (4) — that contaminant migration will not result in any violation of applicable groundwater standards at  
4 any existing or foreseeable receptor;
- 5 (5) — that contaminants have not and will not migrate onto adjacent properties, or that:  
6 (A) — such properties are served by an existing public water supply system dependent on surface  
7 waters or hydraulically isolated groundwater; or  
8 (B) — the owners of such properties have consented in writing to the request;
- 9 (6) — that, if the contaminant plume is expected to intercept surface waters, the groundwater discharge  
10 will not possess contaminant concentrations that would result in violations of standards for surface  
11 waters contained in 15A NCAC 02B .0200;
- 12 (7) — that the person making the request will put in place a groundwater monitoring program that, based  
13 on subsurface conditions and the physical and chemical properties of the contaminant, will  
14 accurately track the degradation and attenuation of contaminants and contaminant by products  
15 within and down gradient of the plume and to detect contaminants and contaminant by products  
16 prior to their reaching any existing or foreseeable receptor at least one year's time of travel  
17 upgradient of the receptor and no greater than the distance the groundwater at the contaminated site  
18 is predicted to travel in five years;
- 19 (8) — that all necessary access agreements needed to monitor groundwater quality pursuant to  
20 Subparagraph (7) of this Paragraph have been or can be obtained;
- 21 (9) — that public notice of the request has been provided in accordance with Rule .0114(b) of this Section;  
22 and
- 23 (10) — that the proposed corrective action plan would be consistent with all other environmental laws.

24 (i) Corrective action using risk-based remediation. A person choosing to use risk-based remediation shall comply  
25 with the requirements in G.S. 130A Article 9 Part 8.

26 ~~(m)~~(j) Termination of active remediation prior to achieving the standards. The Department or any Any person required  
27 to implement an approved corrective action plan for a site subject to Paragraphs (e) or (e) Paragraph (g) of this Rule  
28 may request that the Secretary approve termination of ~~corrective action.~~the active [remediation.]remediation prior to  
29 achieving the standards. The owner and operator of an active remediation system shall [demonstrate] demonstrate,  
30 [that,] by terminating the active remediation and then implementing an approved natural attenuation corrective action  
31 under Paragraph (h) of this Rule, that all potential receptors will be protected. A request submitted to the Secretary  
32 under this Paragraph shall include:

33 (1) — ~~A request submitted to the Secretary under this Paragraph shall include:~~

34 (1)(A) ~~a~~ a discussion of the duration of the corrective action, the total project cost, projected annual cost  
35 for ~~continuance~~ continuance, and evaluation of the success of the corrective ~~action;~~ action.



1 ~~(2)(B)~~ ~~an~~ An evaluation of alternate treatment technologies that could potentially result in further reduction  
2 of contaminant levels, projected capital, and annual operating costs for each technology;  
3 and technology.

4 ~~(3)(C)~~ ~~the~~ The effects, including public health and safety impacts, on groundwater users if contaminant  
5 levels remain at levels existing at the time corrective action is terminated.

6 ~~(4)(D)~~ The proposed contaminant concentrations to actively remediate to **prior to reaching the standards** in  
7 the source area and all predictive calculations and model runs demonstrating that the standards will  
8 be met at all existing or potential receptors, based on travel time and the natural attenuation capacity  
9 of subsurface materials or on a barrier to groundwater migration that exists or will be installed by  
10 the person making the request.

11 ~~(5)(E)~~ A demonstration that continuation of active remediation would not result in a significant reduction  
12 in the concentration of contaminants. This demonstration shall show the duration and degree of  
13 success of existing remedial efforts to attain the standards. For the purpose of this Rule, a  
14 "significant reduction" is demonstrated by showing that the asymptotic slope of the contaminant  
15 concentrations over time is less than a ratio of 1:40 over a term of one year based on four consecutive  
16 quarters with sampling events spaced at least three months apart.

17 ~~(6)(F)~~ A natural attenuation corrective action plan for the remaining contamination in accordance with  
18 Paragraph (h) of this Rule.

19 (2) — In addition, the person making the request shall demonstrate:

20 (A) — ~~that continuation of corrective action would not result in a significant reduction in the~~  
21 ~~concentration of contaminants. This demonstration shall show the duration and degree of~~  
22 ~~success of existing remedial efforts to attain standards. For the purpose of this Part, a~~  
23 ~~"significant reduction" is demonstrated by showing that the asymptotic slope of the~~  
24 ~~contaminants curve of decontamination is less than a ratio of 1:40 over a term of one year~~  
25 ~~based on quarterly sampling;~~

26 (B) — ~~that contaminants have not and will not migrate onto adjacent properties, or that:~~

27 (i) — ~~such properties are served by an existing public water supply system dependent~~  
28 ~~on surface waters or hydraulically isolated groundwater; or~~

29 (ii) — ~~the owners of such properties have consented in writing to the request;~~

30 (C) — ~~that, if the contaminant plumes are expected to intercept surface waters, the groundwater~~  
31 ~~discharge will not possess contaminant concentrations that would result in violations of~~  
32 ~~standards for surface waters contained in 15A NCAC 02B .0200;~~

33 (D) — ~~that public notice of the request has been provided in accordance with Rule .0114(b) of this~~  
34 ~~Section; and~~

35 (E) — ~~that the proposed termination would be consistent with all other environmental laws.~~

1 ~~(k)(3)~~~~(2)~~ The Secretary shall not authorize termination of active remediation corrective action for any area that, at  
2 the time the request is made, has been identified by a state State or local groundwater use planning process for resource  
3 development.

4 ~~(l)(4)~~~~(3)~~ The Secretary may authorize the termination of active remediation corrective action, or amend the  
5 corrective action plan after considering all the information in the request. In making the authorization, the Secretary  
6 shall consider geologic and hydrogeologic conditions, the nature and extent of the contamination, technical and  
7 economic feasibility, and public health and safety impacts on all existing and foreseeable potential receptors should  
8 the contaminated plume reach them receptors and the impacts the contaminated plume may have if it reaches them.  
9 The Secretary will review the request for completeness and may request any additional information necessary to make  
10 their authorization. ~~Upon termination of corrective action, the Secretary shall require implementation of a~~  
11 ~~groundwater monitoring program that, based on subsurface conditions and the physical and chemical properties of the~~  
12 ~~contaminants, will accurately track the degradation and attenuation of contaminants at a location of no less than one~~  
13 ~~year's predicted time of travel upgradient of any existing or foreseeable receptor. The monitoring program shall remain~~  
14 ~~in effect until there is sufficient evidence that the contaminant concentrations have been reduced to the level of the~~  
15 ~~standards. For the purpose of this Part, "sufficient evidence" means that sampling and analyses demonstrate that~~  
16 ~~contaminant concentrations have been reduced to the level of the standards on multiple sampling events.~~

17 ~~(m)(4)~~ In the evaluation of active remediation or natural attenuation corrective action plans, the Secretary shall  
18 consider the extent of any violations, the extent of any threat to human health, the extent of damage or potential adverse  
19 impact to the environment, technology available to accomplish restoration, the potential for degradation of the  
20 contaminants in the environment, geologic and hydrogeologic conditions, the time estimated to achieve groundwater  
21 quality restoration, technical and economic feasibility, and the public and economic benefits to be derived from  
22 groundwater quality restoration.

23 ~~(n)(4)~~ ~~Upon a determination by the Secretary that~~ Where continued corrective action would result in no significant  
24 reduction in contaminant ~~concentrations, concentrations as determined in [Part]Subparagraph (j)(4)(E)(5) of this~~  
25 ~~Rule, and the contaminated groundwaters can be rendered potable by treatment using technologies that are in use in~~  
26 ~~other applications and shown to be effective for removal of contaminants, the person may request that the Secretary~~  
27 ~~may designate the remaining area of degraded groundwater RS. Where the remaining degraded groundwaters cannot~~  
28 ~~be made potable by such treatment, the~~ The Secretary-Commission may also consider a request for reclassification of  
29 the groundwater to a GC classification as outlined in Rule .0204.0319 of this Subchapter.

30 ~~(o)(4)~~ If at any time the Secretary determines that a new technology is available that would remediate the  
31 contaminated groundwater to the standards specified in Rule .0202 of this Subchapter, the Secretary may require the  
32 responsible party person to evaluate the economic and technological feasibility of implementing the new technology  
33 in an active groundwater remediation corrective action plan in accordance with a schedule established by the  
34 Secretary plan. The Secretary's determination to utilize new technology at any site or for any particular contaminant  
35 or constituent of interest shall include a consideration of the factors in ~~Paragraph (h) of this Rule.~~ Rule .0111(c) of this  
36 Section.

1 ~~(p)(+)~~ Where the standards are exceeded as a result of the application of pesticides or other agricultural chemicals,  
2 the Secretary shall request the Pesticide Board or the Department of Agriculture and Consumer Services to assist the  
3 Department in determining the cause of the violation. If the violation is determined to have resulted from the use of  
4 pesticides, the Secretary shall request the Pesticide Board to take appropriate regulatory action to control the use of  
5 the chemical or chemicals responsible for, or contributing to, such violations, or to discontinue their use.

6 ~~(q)~~ The approval pursuant to this Rule of any corrective action plan, or modification or termination thereof, that  
7 permits the migration of a contaminant onto adjacent property, shall not affect any private right of action by any party  
8 that may be affected by that contamination.

9 ~~(q)(+)(+)~~ If a discharge or release is not governed by the rules in Section .0400 of this Subchapter and the increase  
10 in the concentration of a substance in excess of the standard resulted in whole or in part from a release from a  
11 commercial or noncommercial underground storage tank as defined in G.S. 143-215.94A, any person required to  
12 implement an approved corrective action plan pursuant to this Rule and seeking reimbursement for the Commercial  
13 or Noncommercial Leaking Petroleum Underground Storage Tank Cleanup Funds shall implement a corrective action  
14 plan meeting the requirements of Paragraph ~~(k)~~ or ~~(l)~~(g) or (h) of this Rule unless the person demonstrates to the  
15 Secretary that:

16 (1) contamination resulting from the discharge cannot qualify for approval of a plan based on the  
17 requirements of the ~~Paragraphs;~~ Paragraphs (g) or (h) of this Rule; or

18 (2) the cost of making such a demonstration would exceed the cost of implementing a corrective action  
19 plan submitted pursuant to Paragraph ~~(e)~~ of this Rule. Rule .0111(c) of this Section.

20 ~~(r)(+)(+)~~ If a discharge or release is not governed by the rules in Section .0400 of this Subchapter and the increase  
21 in the concentration of a substance in excess of the standard resulted in whole or in part from a release from a  
22 commercial or noncommercial underground storage tank as defined in G.S. 143-215.94A, the Secretary may require  
23 any person implementing or operating a previously approved corrective action plan pursuant to this Rule to:

24 (1) develop and implement a corrective action plan meeting the requirements of Paragraphs ~~(k)~~ and  
25 ~~(l)~~(g) and (h) of this Rule; or

26 (2) seek discontinuance of corrective action pursuant to Paragraph ~~(m)~~(j) of this Rule.

27 ~~(s)(+)~~ Pursuant to this Rule, the approval of any corrective action plan, modification, or termination thereof, that  
28 permits the migration of a contaminant onto adjacent property, shall not affect any private right of action by any party  
29 that may be affected by that contaminant.

30  
31 *History Note: Authority G.S. 143-215.1; 143-215.3; ~~143-215.94A;~~ 143-215.94T; 143-215.94V; 143B-282;*  
32 *~~1995 (Reg. Sess. 1996) c. 648, s. 1;~~*  
33 *Eff. August 1, 1989;*  
34 *Amended Eff. October 1, 1993; September 1, 1992;*  
35 *Temporary Amendment Eff. January 2, 1998; January 2, 1996;*  
36 *Amended Eff. July 1, 2016; October 29, 1998;*  
37 *Readopted Eff. June 1, 2022.*

1 15A NCAC 02L .0107 is readopted as published in 36:08 NCR 610 with changes as follows:  
2

3 **15A NCAC 02L .0107 COMPLIANCE BOUNDARY**

4 (a) For disposal systems individually permitted prior to December 30, 1983, the compliance boundary ~~is~~ shall be  
5 established at a horizontal distance of 500 feet from the waste boundary or at the property boundary, whichever is  
6 closer to the source.

7 (b) For disposal systems individually permitted on or after December 30, 1983, a compliance boundary shall be  
8 established at a horizontal distance of 250 feet from the waste boundary, or 50 feet within the property boundary,  
9 whichever point is closer to the source.

10 (c) ~~The compliance boundary shall be established by the Director, or his designee at the time of permit issuance.~~  
11 ~~issuance and shall remain in place for the duration of the permit. Any sale or transfer of property which affects a~~  
12 ~~compliance boundary shall be reported immediately to the Director, or his designee. For disposal systems which are~~  
13 ~~not governed by Paragraphs (e) or (f) of this Rule, the compliance boundary affected by the sale or transfer of property~~  
14 ~~will be re-established consistent with Paragraphs (a) or (b) of this Rule, whichever is applicable.~~

15 ~~(d) Except as provided in Paragraph (g) of this Rule, no water supply wells shall be constructed or operated within~~  
16 ~~the compliance boundary of a disposal system individually permitted or re-permitted after January 1, 1993.~~

17 (d) The compliance boundary and zone shall extend vertically from the surface through the water table to the  
18 maximum depth of saturation.

19 (e) The permitted activity shall not cause or contribute to an exceedance of the surface water standards established  
20 under 15A NCAC 02B .0200.

21 (f) Multiple contiguous properties under common ownership and permitted for use as a waste disposal area shall be  
22 treated as a single property with regard to determination of a compliance zone and setbacks to property lines as per  
23 Paragraphs (a) or (b) of this Rule.

24 (g) Where compliance zones for separately permitted waste disposal areas under the same ownership on the same  
25 property intersect, the Director shall combine the compliance zones into one single compliance zone with a single  
26 compliance boundary.

27 (h) The permittee shall establish a monitoring program within the compliance zone per the requirements in Rule .0110  
28 of this Section.

29 (i) Except as provided in Paragraph (m) of this Rule, no new water supply wells shall be constructed within the  
30 compliance zone of a disposal system individually permitted after January 1, 1993.

31 ~~(e)(j)~~ (j) Except as provided in Paragraph (g)(m) of this Rule, a permittee shall not transfer if the land within an established  
32 compliance boundary zone of a disposal system permitted or re-permitted after January 1, 1993 unless is transferred  
33 and that land is serviced by a community water system as regulated under 15A NCAC 18C, the source of which is  
34 located outside the compliance boundary, the deed shall contain notice of the permit, including the permit number, a  
35 description of the type of permit, and the name, address and telephone number of the permitting agency.

36 (1) ~~the land transferred is serviced by a community water system as defined in 15A NCAC 18C, the~~  
37 ~~source of which is located outside the compliance boundary; and~~

38 (2) ~~the deed transferring the property;~~

- (A) — contains notice of the permit, including the permit number, a description of the type of permit, and the name, address and telephone number of the permitting agency; and
- (B) — contains a restrictive covenant running with the land and in favor of the permittee and the State, as a third party beneficiary, which prohibits the construction and operation of water supply wells within the compliance boundary; and
- (C) — contains a restrictive covenant running with the land and in favor of the permittee and the State, as a third party beneficiary, which grants the right to the permittee and the State to enter on such property within the compliance boundary for groundwater monitoring and remediation purposes.

~~(f)(k)~~ Except as provided in Paragraph ~~(g)~~(m) of this Rule, if at the time a permit is issued ~~or reissued~~ after January 1, 1993, the permittee is not the owner of the land within the compliance ~~boundary, zone~~, it shall be a condition of the permit issued or renewed that the landowner of the land within the compliance ~~boundary, zone~~, if other than the permittee, execute and file in the Register of Deeds in the county in which the land is located, an easement running with the land ~~which~~ that contains either a notice of the permit, including the permit number, a description of the type of permit, and the name, address and telephone number of the permitting agency; or a reference to a notice of the permit with book and page number of its recordation if such notice is required to be filed by statute. The Director shall, upon request by the landowner, file a document terminating the easement with the appropriate Register of Deeds once the following conditions have been met:

- (1) all required groundwater remediation has been completed;
- (2) groundwater monitoring is no longer ~~required;~~ required per Rule .0110(f) of this Section; and
- (3) monitoring wells have been abandoned in accordance with 15A NCAC 02C .0113.
- (4) — contains:
  - (A) — either a notice of the permit, including the permit number, a description of the type of permit, and the name, address and telephone number of the permitting agency; or
  - (B) — a reference to a notice of the permit with book and page number of its recordation if such notice is required to be filed by statute;
- (2) — ~~prohibits the construction and operation of water supply wells within the compliance boundary; and~~
- (3) — ~~reserves the right to the permittee and the State to enter on such property within the compliance boundary for groundwater monitoring and remediation purposes. The easement may be terminated by the Director when its purpose has been fulfilled or the need for the easement no longer exists. Under those conditions the Director shall, upon request by the landowner, file a document terminating the easement with the appropriate Register of Deeds.~~

(l) Any sale or transfer of property which affects a compliance boundary shall be reported to the Director within seven days of the final sale or transfer. For disposal systems which are not governed by Paragraphs (j) or (k) of this Rule, the compliance boundary affected by the sale or transfer of property shall be reestablished consistent with this Rule.

~~(g)(m)~~ The requirements of Paragraphs (d), (e) and (f) of this Rule are not applicable to For ground adsorption sewage treatment and disposal systems serving four or fewer single family dwellings or multiunit dwellings of four or fewer

1 ~~units~~ units regulated under 15A NCAC 02T .0600, the requirements of Paragraphs (i), (j), and (k) of this Rule shall  
2 not be applicable.

3 (h) ~~The boundary shall form a vertical plane extending from the water table to the maximum depth of saturation.~~

4 ~~(n)~~ For ground absorption sewage treatment and disposal systems which are ~~permitted~~ regulated under 15A NCAC  
5 02T .0600, 18A .1900, the compliance boundary shall be established at the property boundary.

6 ~~(o)~~ Penalties authorized pursuant to G.S. 143-215.6A(a)(1) ~~will~~ shall not be assessed for violations of the standards  
7 within a compliance boundary zone unless the violations are the result of violations of permit conditions or negligence  
8 in the management of the facility.

9 ~~(k) The Director shall require:~~

10 (1) ~~that permits for all activities governed by G.S. 143-215.1 be written to protect the quality of~~  
11 ~~groundwater established by applicable standards, at the compliance boundary;~~

12 (2) ~~that necessary groundwater quality monitoring shall be conducted within the compliance boundary;~~  
13 ~~and~~

14 (3) ~~that a violation of standards within the compliance boundary resulting from activities conducted by~~  
15 ~~the permitted facility be remedied through clean-up, recovery, containment, or other response when~~  
16 ~~any of the following conditions occur:~~

17 (A) ~~a violation of any standard in adjoining classified groundwaters occurs or can be reasonably~~  
18 ~~predicted to occur considering hydrogeologic conditions, modeling, or other available~~  
19 ~~evidence;~~

20 (B) ~~an imminent hazard or threat to the public health or safety exists; or~~

21 (C) ~~a violation of any standard in groundwater occurring in the bedrock other than limestones~~  
22 ~~found in the Coastal Plain sediments, unless it can be demonstrated that the violation will~~  
23 ~~not adversely affect, or have the potential to adversely affect a water supply well.~~

24 ~~[(p) The Director shall require that permits for all activities governed by G.S. 143-215.1, Article 9 of G.S. 130A, or~~  
25 ~~Article 11 of G.S. 130A be written in such a way to protect groundwater at or beyond the compliance boundary.]~~

26 ~~[(p)] (p)~~ The Director shall require that exceedances of the standards resulting from activities conducted by the  
27 permitted facility within the compliance zone be remedied through clean-up, recovery, containment, facility design,  
28 or operational control if any of the following occur:

29 (1) ~~A violation of the standards occurs or is~~ expected through professional judgment or predicted ~~to~~  
30 ~~occur~~ through ~~through~~ groundwater ~~modeling to occur~~ in groundwater at or beyond the compliance  
31 ~~boundary as a result of the permitted activities.~~

32 (2) ~~A violation of the surface water standards established under 15A NCAC 02B .0200 occurs or is~~  
33 ~~expected through professional judgment or predicted through modeling to occur~~ through modeling  
34 ~~as a result of the permitted activities.~~

35 (3) ~~An imminent hazard as defined in~~ G.S. 130A-2 ~~G.S. 130A-2~~ exists.

1           (4) An exceedance of the standards occurs in bedrock within the compliance zone as a result of the  
2           permitted ~~activities~~ activities, unless it can be demonstrated that the violation will not adversely  
3           affect any receptor.

4

5     *History Note: Authority G.S. ~~143-215.1(b); 143-215.1; 143-215.3(a)(1);-143B-282;~~*  
6           *Eff. August 1, 1989;*  
7           *Amended Eff. October 1, 1993; November 2, 1992;*  
8           *Readopted Eff. June 1, 2022.*

1 15A NCAC 02L .0108 is readopted as published in 36:08 NCR 612 with changes as follows:  
2

3 **15A NCAC 02L .0108 REVIEW BOUNDARY**

4 A review boundary is established around any waste disposal system area ~~midway~~ half way between the compliance  
5 boundary and the waste boundary. When the concentration of any substance equals or exceeds the standard at the  
6 review boundary as determined by monitoring, the permittee shall be required to take action in accordance with the  
7 provisions of Rule ~~.0106(e)(2)(A)~~.0106(d) of this ~~Subchapter~~.Section.

8  
9 *History Note: Authority G.S. 143-215.1(b); 143-215.3(a)(1); 143B-282;*

10 *Eff. August 1, 1989;*

11 *Readopted Eff. June 1, 2022.*



1 15A NCAC 02L .0109 is readopted as published in 36:08 NCR 612 as follows:  
2

3 **15A NCAC 02L .0109 DELEGATION**

4 (a) The Director is delegated the authority to enter into consent special orders under G.S. 143-215.2 for violations of  
5 the standards except when a public meeting is required as provided in 15A NCAC ~~2H02H~~ .1203.

6 (b) The Director is delegated the authority to prepare a proposed special order to be issued by the Commission without  
7 the consent of the person affected and to notify the affected person of that proposed order and of the procedure set out  
8 in G.S. 150B-23 to contest the proposed special order.

9 (c) The ~~Director, or his designee~~ Director shall give public notice of proposed consent special orders as specified in  
10 15A NCAC ~~2H02H~~ .1203.

11  
12 *History Note: Authority G.S. 143-215.2; 143-215.3(a)(1); 143-215.3(a)(4);*  
13 *Eff. August 1, 1989;*  
14 *Amended Eff. October 1, 1993; October 1, 1990;*  
15 *Readopted Eff. June 1, 2022.*

1 15A NCAC 02L .0110 is readopted as published in 36:08 NCR 612 with changes as follows:  
2

3 **15A NCAC 02L .0110 MONITORING**

4 (a) Except where exempted by statute or this Subchapter, ~~the Director may require~~ any person who causes, ~~permits~~  
5 ~~permits,~~ or has control over any discharge of ~~waste,waste~~ or ~~groundwater~~-cleanup program, ~~shall install and to~~  
6 ~~implement a monitoring program system, at such locations, and in such detail,detail~~ as the Director, or his designee  
7 ~~may require~~ required to evaluate the effects of the discharge upon the environment or waters of the state,State,  
8 including the effect of any actions taken to restore groundwater quality, as well as the efficiency of any treatment  
9 facility. The Director shall consider information including the geologic and hydrogeologic conditions, potential  
10 receptors, and risks to public health and the environment in determining the nature and extent of any required  
11 monitoring program. The monitoring program plan shall be prepared under the ~~responsible~~-charge of a ~~Professional~~  
12 ~~professional Engineer-engineer or Licensed-licensed Geologist-geologist~~ and bear the seal of the ~~same,same~~ if required  
13 under G.S. 89C or G.S. 89E.

14 (b) Monitoring systems within the monitoring program shall be constructed and operated in a manner that will not  
15 result in the contamination of ~~adjacent groundwaters of a higher quality,waters of the State.~~

16 (c) The Director may require modification of a monitoring program or system or require additional monitoring of a  
17 contaminant or constituent of interest if [it is determined to be in the best interest] new information indicates such  
18 modification or additional monitoring is necessary to protect [to] public health [and] or the environment.

19 (d) Monitoring systems within the monitoring program shall be able to:

20 (1) Track the migration, degradation, and attenuation of contaminants and contaminant by-products  
21 from the source area through a point of compliance such as a compliance boundary (if applicable),  
22 within a contaminant plume, and in areas where the contaminant plume is expected [through  
23 professional judgment or predicted through modeling to migrate.

24 (2) Be used to determine the background groundwater quality that is not affected by site conditions,  
25 actions, or activities.

26 (3) Detect contaminants and contaminant by-products prior to their reaching any potential receptor.

27 (4) Detect if a groundwater contaminant plume is causing or contributing to exceedances of the surface  
28 water standards established under 15A NCAC 02B .0200.

29 ~~(e)~~(e) Monitoring shall be conducted and results reported in a manner and at a frequency specified by the Director,  
30 or his designee,Director based on information including the geologic and hydrogeologic conditions, potential  
31 receptors, and risks to public health and the environment.

32 (f) Monitoring programs shall remain in effect until it is demonstrated that the contaminant concentrations resulting  
33 from site activities or actions have been reduced to a level at or below the standards for a minimum of four consecutive  
34 quarters with monitoring events spaced at least three months apart. The Director may require an extension of  
35 monitoring if the Director determines that concentrations are fluctuating at or near the standards or the data trends  
36 suggest that concentrations [may be] are increasing. Once the Director is satisfied that the concentrations [are at or  
37 below standards [have been met] or that corrective action is no longer necessary to ensure compliance with the Rules  
38 of this Subchapter, the Director shall furnish a letter stating that no further action is required. The Director shall also

1 require a plan be submitted for maintaining or abandoning the monitoring wells in accordance with 15A NCAC 02C  
2 .0100.

3  
4 *History Note: Authority G.S. 143-215.1(b); 143-215.3(a)(1); 143-215.65; 143-215.66; 143B-282;*  
5 *Eff. August 1, 1989;*  
6 *Amended Eff. October 1, 1993;*  
7 *Readopted Eff. June 1, 2022.*

1 15A NCAC 02L .0111 is readopted as published in 36:08 NCR 612 with changes as follows:

2  
3 **15A NCAC 02L .0111 REPORTS**

4 (a) Any person subject to the requirements ~~for corrective action specified in Rule .0106 of this Section [Subchapter]~~  
5 shall submit to the Director, ~~in such detail as the Director may require, a written report that describes:~~ plans or reports  
6 including those associated with initial response, site assessment, and corrective action. Reports shall be submitted in  
7 accordance with a schedule established by the Director. In establishing a schedule, the Director shall consider a  
8 proposal by the person submitting the plan or report.

9 (1) ~~the results of the investigation specified in Paragraphs (c) and (d) of Rule .0106 of this Section,~~  
10 ~~including but not limited to:~~

11 (A) ~~a description of the sampling procedures followed and methods of chemical analyses used;~~  
12 ~~and~~

13 (B) ~~all technical data utilized in support of any conclusions drawn or determinations made.~~

14 (2) ~~the results of the predictive calculations or modeling, including a copy of the calculations or model~~  
15 ~~runs and all supporting technical data, used in the demonstration required in Paragraph (d) of Rule~~  
16 ~~.0106 of this Section; and~~

17 (3) ~~the proposed methodology and timetable associated with the corrective action for those situations~~  
18 ~~identified in Paragraphs (c) and (d) of Rule .0106 of this Section.~~

19 (b) ~~The report shall be prepared under the responsible charge of a Professional Engineer or Licensed Geologist and~~  
20 ~~bear the seal of the same as specified in Rule .0106(d) of this Section.~~

21 (b) A site assessment conducted pursuant to the requirements of Paragraphs (c) or (e) in Rule .0106 of this Section  
22 shall include:

23 (1) a description of the site including current and historical operations at the facility and all current and  
24 historical waste streams;

25 (2) the source and cause of contamination;

26 (3) any imminent hazards to public health and any actions taken to mitigate them;

27 (4) a description of the initial response actions taken in accordance with Rule .0106(f) of this Section;

28 (5) all potential receptors and expected exposure pathways;

29 (6) the horizontal and vertical extent of soil and groundwater contamination and all significant factors  
30 affecting contaminant transport;

31 (7) background threshold values for affected media;

32 (8) geological and hydrogeological features influencing the movement, chemical, and physical  
33 character of the contaminants;

34 (9) the nature and extent of any surface water or sediment contamination resulting from interactions  
35 with contaminated soil or groundwater;

36 (10) a description of the sampling procedures followed, and methods of chemical analyses used;

1           (1) all technical data utilized in support of any interpretations, conclusions, determinations, or  
2           evaluations made; and

3           (2) the results of predictive calculations or modeling, including a copy of the calculations or model runs  
4           and all supporting technical data.

5   (c) Corrective action plans submitted pursuant to Paragraphs (c) or (e) in Rule .0106 of this Section for active  
6   remediation shall include:

7           (1) a summary of the results of the site assessment submitted in accordance with Paragraph (b) of this  
8           Rule;

9           (2) the technical basis for the requested corrective action;

10          (3) an evaluation of risk to receptors within the contaminant plume and in areas where the plume is  
11          expected through professional judgment or predicted through modeling to migrate; [migrate through  
12          modeling;]

13          (4) an evaluation of projected groundwater use within 1,500 feet of the predicted impacted area based  
14          on current State or local government planning efforts;

15          (5) a summary of the available technology that could feasibly be used as a potential remedial strategy  
16          based on the specific site conditions and nature and extent of the contamination that includes the  
17          predicted time to return to compliance with the standards and the estimated costs to implement each  
18          potential strategy;

19          (6) the proposed remedial technology that the person proposes to implement that includes:

20               (A) the rationale for selecting the proposed technology;

21               (B) plans and specifications, including engineering details;

22               (C) a schedule for implementation and operation of the technology;

23               (D) the predicted time to return to compliance with the standards;

24               (E) the estimated costs to implement and operate the technology;

25               (F) a monitoring plan [that evaluates]to evaluate the effectiveness of the technology; and

26               (G) the results of any modeling or predictive calculations that shows the projected movement  
27               of the contaminant plume until the predicted time to return to compliance with the  
28               standards;

29          (7) all technical data utilized in support of any interpretations, conclusions, determinations, or  
30          evaluations made; [and]

31          (8) [the results of predictive calculations or modeling, including]a copy of the calculations or model  
32          runs and all supporting technical data; and

33          (9) a demonstration that:

34               (A) all necessary access agreements needed to monitor groundwater quality have been or can  
35               be obtained; and

36               (B) the proposed corrective action plan would be consistent with all other environmental laws.

1 (d) Corrective action plans submitted pursuant to Paragraphs (c) or (e) in Rule .0106 of this Section for natural  
2 attenuation shall include: [all of the information required in Paragraph (e) of this Rule and demonstrate that:]

3 [(1) — all sources of contamination and free product have been removed or controlled pursuant to Rule  
4 .0106(f) of this Section;

5 (2) — the contaminant has the capacity to degrade or attenuate under the site specific conditions;

6 (3) — the time and direction of contaminant travel can be predicted based on subsurface conditions and  
7 the contaminant's physical and chemical properties;

8 (4) — contaminant migration will not result in any violation of applicable standards at any existing or  
9 potential receptor;

10 (5) — contaminants have not and will not migrate onto adjacent properties, or that:

11 (A) — such properties are served by an existing public water supply system dependent on surface  
12 waters or hydraulically isolated groundwater; or

13 (B) — the owners of such properties have consented in writing to the request;

14 (6) — if the contaminant plume is expected to intercept surface waters, the groundwater discharge will not  
15 possess contaminant concentrations that would result in violations of the surface water standards  
16 established under 15A NCAC 02B .0200;

17 (7) — the person making the request will put in place a groundwater monitoring program in conformance  
18 with Rule .0110 of this Section;

19 (8) — all necessary access agreements needed to monitor groundwater quality have been or can be  
20 obtained;

21 (9) — public notice of the request has been provided in accordance with Rule .0114(b) of this Section; and

22 (10) — the proposed corrective action plan would be consistent with all other environmental laws.]

23 (1) a summary of the results of the site assessment submitted in accordance with Paragraph (b) of this  
24 Rule;

25 (2) the technical basis for the requested corrective action;

26 (3) an evaluation of risk to receptors within the contaminant plume and in areas where the plume is  
27 expected through professional judgment or predicted through modeling to migrate; [migrate through  
28 modeling;]

29 (4) an evaluation of projected groundwater use within 1,500 feet of the predicted impacted area based  
30 on current State or local government planning efforts;

31 (5) the predicted time to return to compliance with the standards;

32 (6) the results of any modeling or predictive calculations that show the projected movement of the  
33 contaminant plume until the predicted time to return to compliance with the standards;

34 (7) all technical data utilized in support of any interpretations, conclusions, determinations, or  
35 evaluations made;

36 (8) a copy of the calculations or model runs and all supporting technical data;

37 (9) a monitoring plan to evaluate the effectiveness of the natural attenuation; and

1 (10) a demonstration that:

2 (A) all sources of contamination and free product have been removed or controlled pursuant to  
3 Rule .0106(f) of this Section;

4 (B) the contaminant has the capacity to degrade or attenuate under the site-specific conditions;

5 (C) the time and direction of contaminant travel can be predicted based on subsurface  
6 conditions and the contaminant's physical and chemical properties;

7 (D) contaminant migration will not result in any violation of applicable standards at any  
8 existing or potential receptor;

9 (E) contaminants have not and will not migrate onto adjacent properties, or that:

10 (i) such properties are served by an existing public water supply system dependent  
11 on surface waters or hydraulically isolated groundwater; or

12 (ii) the owners of such properties have consented in writing to the request;

13 (F) if the contaminant plume is expected through professional judgment or predicted through  
14 modeling [~~or expected~~] to intercept surface waters, the groundwater discharge will not  
15 possess contaminant concentrations that would result in violations of the surface water  
16 standards established under 15A NCAC 02B .0200;

17 (G) all necessary access agreements needed to monitor groundwater quality have been or can  
18 be obtained;

19 (H) public notice of the request has been provided in accordance with Rule .0114(b) and (c) of  
20 this Section; and

21 (I) the proposed corrective action plan would be consistent with all other environmental laws.

22 (e) All reports and plans shall be prepared under the charge of a professional engineer, licensed soil scientist, or  
23 licensed geologist if required under G.S. 89C, G.S. 89E, or G.S. 89F.

24 *History Note: Authority G.S. 143-215.1(b); 143-215.3(a)(1); 143-215.65; 143B-282;*

25 *Eff. August 1, 1989;*

26 *Amended Eff. October 1, 1993;*

27 *Readopted Eff. June 1, 2022.*

1 15A NCAC 02L .0112 is readopted as published in 36:08 NCR 614 as follows:  
2

3 **15A NCAC 02L .0112 ANALYTICAL PROCEDURES**

4 Tests or analytical procedures to determine compliance or noncompliance with the standards established in Rule .0202  
5 of this Subchapter ~~will~~ shall be in accordance ~~with~~ with 15A NCAC 02H .0805(a)(1).

6 (1) ~~— The most sensitive of the following methods or procedures for substances where the standard is at  
7 or above the method detection limit value:~~

8 (a) ~~— The most recent version of Standard Methods for the Examination of Water and  
9 Wastewater, published jointly by American Public Health Association, American Water  
10 Works Association and Water Pollution Control Federation;~~

11 (b) ~~— Methods for Chemical Analysis of Water and Waste, 1979, U.S. Environmental Protection  
12 Agency publication number EPA-600/4-79-020, as revised March 1983;~~

13 (c) ~~— Test Methods for Evaluating Solid Wastes: Physical/Chemical Methods, 3rd Edition, 1986,  
14 U.S. Environmental Protection Agency publication number SW 846;~~

15 (d) ~~— Test Procedures for the Analysis of Pollutants Under the Clean Water Act, Federal Register  
16 Vol. 49, No. 209, 40 CFR Part 136, October 26, 1984;~~

17 (e) ~~— Methods or procedures approved by letter from the Director upon application by the  
18 regulated source; or~~

19 (2) ~~— A method or procedure approved by the Director for substances where the standard is less than the  
20 method detection limit value.~~

21 *History Note: Authority G.S. 143-215.3(a)(1); 143B-282;*

22 *Eff. August 1, 1989;*

23 *Amended Eff. October 1, 1993;*

24 *Readopted Eff. June 1, 2022.*  
25



1 15A NCAC 02L .0113 is readopted as published in 36:08 NCR 614 with changes as follows:

2  
3 **15A NCAC 02L .0113 VARIANCE**

4 (a) The Commission, on its own initiative or pursuant to a request under G.S. 143-215.3(e), may grant variances to  
5 the rules of this Subchapter.

6 (b) Requests for variances are ~~filed by letter from~~ submitted by the applicant to the **Environmental Management**  
7 Commission. The application shall be ~~mailed~~ submitted in writing to the chairman of the Commission in care of the  
8 ~~Director, Division of Environmental Management, Post Office Box 29535, Raleigh, N.C. 27626-0535, Director.~~

9 (c) The application shall contain the following information:

10 (1) Applications filed by counties or municipalities ~~must~~ shall include a resolution of the County Board  
11 of Commissioners or the governing board of the municipality requesting the variance.

12 (2) A description of the past, ~~existing~~ existing, or proposed activities or operations that have or would  
13 result in a discharge of contaminants to the groundwaters.

14 (3) Description of the proposed area for which a variance is requested. A ~~detailed~~ location map, ~~map~~  
15 showing the orientation of the facility, potential for groundwater contaminant migration, as well as  
16 the area covered by the variance request, with reference to at least two geographic references  
17 including (numbered ~~numbered~~ roads, named streams/rivers, ~~etc.)~~ etc. ~~must~~ shall be included.

18 (4) Supporting information to establish that the variance will not endanger the public ~~health and~~  
19 safety, health, including health and environmental effects from exposure to groundwater  
20 contaminants. ~~(Location~~ Location of wells and other water supply sources including details of well  
21 construction, if known, within 1/2 mile of site ~~must~~ shall be shown on a ~~map~~) map.

22 (5) Supporting information to establish that requirements of this Rule cannot be achieved by providing  
23 the best available technology economically reasonable. This information ~~must~~ shall identify specific  
24 technology considered, ~~and~~ the costs of implementing the ~~technology~~ technology, and the impact of  
25 the costs on the applicant.

26 (6) Supporting information to establish that compliance would produce serious financial hardship on  
27 the applicant.

28 (7) Supporting information that compliance would produce serious financial hardship without equal or  
29 greater public benefit.

30 (8) A copy of any Special Order that was issued in connection with contaminants in the proposed area  
31 and supporting information that applicant has complied with the Special Order.

32 (9) A list of the names and addresses of any property owners within the proposed area of the ~~variance~~  
33 variance, as well as ~~any~~ property owners adjacent to the site covered by the variance.

34 (d) Upon receipt of the application, the Director ~~will~~ shall review it for completeness and request additional  
35 information if ~~necessary~~ incomplete. When the application is complete, the Director shall give public notice of the  
36 application and schedule the matter for a public hearing in accordance with G.S. 143-215.4(b) and the procedures set  
37 out in Paragraph (e) of this Rule.

1 (e) Notice of Public Hearing:

2 (1) Notice of public hearing on any variance application shall be circulated in the geographical areas of  
3 the proposed ~~variance~~ variance. ~~by the Director at~~ At least 30-20 days prior to the date of the  
4 ~~hearing~~ hearing, the Director shall:

5 (A) ~~by publishing~~ publish the notice one time in a newspaper having general circulation in said  
6 county;

7 (B) ~~by mailing~~ submit the notice to the North Carolina Department of ~~Environment, Health,~~  
8 ~~and Natural Resources,~~ Health and Human Services, Division of Environmental Health  
9 Section and appropriate local ~~health agency~~ health director;

10 (C) ~~by mailing~~ submit the notice to any other federal, state or local agency upon request;

11 (D) ~~by mailing~~ submit the notice to the local governmental unit or units having jurisdiction over  
12 the geographic area covered by the variance;

13 (E) ~~by mailing~~ submit the notice to any property owner within the proposed area of the  
14 variance, as well as any property owners adjacent to the site covered by the ~~variance~~;  
15 ~~and variance~~;

16 (F) ~~by mailing~~ submit the notice to any person or group upon ~~request~~ request; and

17 (G) post the notice on the Department website.

18 (2) The contents of public notice of any hearing shall include ~~at least~~ the following:

19 (A) ~~name~~ name, address, and phone number of agency holding the public hearing;

20 (B) ~~name~~ name and address of each applicant whose application will be considered at the  
21 meeting;

22 (C) a brief summary of the variance request;

23 (D) a geographic description of a proposed area for which a variance is requested;

24 (E) a brief description of activities or operations which have or will result in the discharge of  
25 contaminants to the ~~groundwaters~~ waters of the State described in the variance application;

26 (F) a brief reference to the public notice issued for each variance application;

27 (G) information regarding the time and location for the hearing;

28 (H) the purpose of the hearing;

29 (I) the address and phone number of premises at which interested persons may obtain further  
30 information, request a copy of each application, and inspect and copy forms and related  
31 documents; and

32 (J) a brief description of the nature of the hearing including the rules and procedures to be  
33 followed. The notice shall also state that additional information is on file with the Director  
34 and may be inspected at any time during normal working hours. Copies of the information  
35 on file will be made available upon request and payment of cost or reproduction.

1 (f) All comments received within 30 days following the date of the ~~public hearing~~ publication in the newspaper in Part  
2 (e)(1)(a) of this Rule shall be made part of the application file and shall be considered by the Commission prior to  
3 taking final action on the application.

4 (g) In determining whether to grant a variance, the Commission shall consider whether the applicant has complied  
5 with any Special ~~Order, Order~~ or Special Order by Consent issued under G.S. 143-215.2.

6 (h) ~~If the Commission's final decision is unacceptable, the~~ The applicant may file a petition for a contested case in  
7 accordance with Chapter 150B of the General Statutes. If the petition is not filed within 60 days, the decision on the  
8 variance shall be final and binding.

9 (i) A variance shall not operate as a defense to an action at law based upon a public or private nuisance theory or any  
10 other cause of action.

11  
12 *History Note:* Authority G.S. 143-215.3(a)(1); 143-215.3(a)(3); 143-215.3(a)(4); 143-215.3(e); 143-215.4;  
13 *Eff. August 1, 1989;*  
14 *Amended Eff. October 1, 1993;*  
15 *Readopted Eff. June 1, 2022.*

1 15A NCAC 02L .0114 is readopted as published in 36:08 NCR 616 with changes as follows:

2  
3 **15A NCAC 02L .0114 NOTIFICATION REQUIREMENTS**

4 (a) Any person subject to the requirements of Rule .0106(c) or (e) of this Section shall submit to the local ~~Health~~  
5 health Director, director and the chief administrative officer of the ~~political~~ jurisdictions in which the groundwater  
6 contamination has occurred, a ~~report that describes:~~

7 (1) ~~— The area extent of the contaminant plume;~~

8 (2) ~~— The chemical constituents in the groundwater which exceed the standards described in Rule .0202 of this~~  
9 ~~Subchapter;~~

10 (3) ~~— Actions taken and intended to mitigate threats to human health;~~

11 (4) ~~— The location of any wells installed for the purpose of monitoring the contaminant plume and the frequency~~  
12 ~~of sampling.~~

13 ~~The report described in this Rule shall be submitted no later than five working days after submittal of the completed~~  
14 ~~copy of the site assessment report assessing the cause, significance and extent of the violation as required by Rule~~  
15 ~~.0106(e). .0111(b) of this Section.~~

16 (b) Any person who submits a request under Rule ~~.0106(k), (l), or (m).~~ 0106(g) or (h) of this Section shall notify the  
17 local ~~Health Director~~ health director and the chief administrative officer of the ~~political~~ jurisdictions in which the  
18 contaminant plume occurs, and all property owners and occupants within or contiguous to the area underlain by the  
19 contaminant plume, and under the areas where it is predicted through modeling or expected through professional  
20 judgment to migrate, ~~of the nature a summary~~ of the request and reasons supporting it. Notification shall be made by  
21 certified mail concurrent with the submittal of the request to the Director. A final decision by the Director shall be  
22 postponed for a period of 30 days following receipt of the request so that the Director may consider comments  
23 submitted by individuals interested in the request. Individuals interested in the request may submit written comments  
24 to the Director within 30 days of the receipt of the notification. The Director shall issue a final decision after  
25 considering the written comments.

26 (c) Any person whose request under Rule ~~.0106(k), (l), or (m).~~ 0106(g) or (h) of this Section is granted by the Director  
27 shall notify parties specified in Paragraph (b) of this Rule of the Director's ~~decision.~~ decision and a summary of the  
28 actions to be taken. Notification shall be made by certified mail within 30 days of receipt of the Director's decision.

29  
30 *History Note:* Authority G.S. 143-214.1; 143-215.3(a)(1); ~~143B-282(2)b;~~ 143B-282(a)(2)(c);  
31 Eff. October 1, 1993;  
32 Readopted Eff. June 1, 2022.

## Burgos, Alexander N

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**From:** Liebman, Brian R  
**Sent:** Wednesday, May 11, 2022 5:07 PM  
**To:** Everett, Jennifer; Rules, Oah  
**Cc:** Burgos, Alexander N; Smith, Eric G; Reynolds, Phillip T  
**Subject:** RE: EMC 02L Rules - Requests for Changes - May 2022 RRC Meeting

Thanks, Jennifer. I'll take a look and get back to you as soon as I can.

Brian

Brian Liebman  
Counsel to the North Carolina Rules Review Commission  
Office of Administrative Hearings  
(984)236-1948  
brian.liebman@oah.nc.gov

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**From:** Everett, Jennifer <jennifer.everett@ncdenr.gov>  
**Sent:** Wednesday, May 11, 2022 3:30 PM  
**To:** Liebman, Brian R <brian.liebman@oah.nc.gov>; Rules, Oah <oah.rules@oah.nc.gov>  
**Cc:** Burgos, Alexander N <alexander.burgos@oah.nc.gov>; Smith, Eric G <eric.g.smith@ncdenr.gov>; Reynolds, Phillip T <preynolds@ncdoj.gov>  
**Subject:** RE: EMC 02L Rules - Requests for Changes - May 2022 RRC Meeting

Brian,

Attached are the rules and responses to your technical change requests for 15A NCAC 02L .0100.

Jennifer

Jennifer Everett  
DEQ Rulemaking Coordinator  
N.C. Depart. Of Environmental Quality  
Office of General Counsel  
1601 Mail Service Center  
Raleigh, NC 27699-1601  
Tele: (919)-707-8614  
<https://deq.nc.gov/permits-rules/rules-regulations/deq-proposed-rules>

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**From:** Liebman, Brian R <[brian.liebman@oah.nc.gov](mailto:brian.liebman@oah.nc.gov)>  
**Sent:** Wednesday, April 27, 2022 11:58 AM

**To:** Everett, Jennifer <[jennifer.everett@ncdenr.gov](mailto:jennifer.everett@ncdenr.gov)>

**Cc:** Burgos, Alexander N <[alexander.burgos@oah.nc.gov](mailto:alexander.burgos@oah.nc.gov)>; Smith, Eric G <[eric.g.smith@ncdenr.gov](mailto:eric.g.smith@ncdenr.gov)>

**Subject:** EMC 02L Rules - Requests for Changes - May 2022 RRC Meeting

Good morning, Jennifer,

I'm the attorney who reviewed the Rules submitted by EMC for the May 2022 RRC meeting. The RRC will formally review these Rules at its meeting on Thursday, May 19, 2022, at 9:00 a.m. The meeting will be a hybrid of in-person and WebEx attendance, and an evite should be sent to you as we get closer to the meeting. If there are any other representatives from your agency who will want to attend virtually, let me know prior to the meeting, and we will get evites out to them as well.

Please submit the revised Rules and forms to me via email, no later than 5 p.m. on Wednesday, May 11, 2022.

In the meantime, please let me know if you have any questions or concerns about these changes.

Thanks,

Brian

Brian Liebman  
Counsel to the North Carolina Rules Review Commission  
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(984)236-1948  
[brian.liebman@oah.nc.gov](mailto:brian.liebman@oah.nc.gov)

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