

**HEARING OFFICERS REPORT**  
**Proposed Amendments to 15A NCAC 02L .0106 “Groundwater Corrective Action”**  
Presented to Environmental Management Commission  
February 16, 2016

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## CHAPTER I: Summaries and Recommendations

### Background and Summary

The Environmental Management Commission (EMC) conducted public hearings on July 20 and September 10, 2015 in Raleigh, North Carolina, to receive public comments on proposed amendments to Rule 15A NCAC 02L .0106, Corrective Action. The amendments were proposed in response to the EMC's review of Rule 15A NCAC 02L .0106, Corrective Action, and Rule 15A NCAC 02L .0107, Compliance Boundary, as required by Part VII of Session Law 2014-122. The amendments as posted for comment are included in Chapter IV of this report.

Rule 15A NCAC 2L .0106 establishes requirements for corrective action to control and restore groundwater that has become contaminated by any discharge, spilling, or other release of contamination.

Session Law 2014-122 (the Coal Ash Management Act of 2014) (See Chapter IV for Section 12(a) of the Act) directed the EMC to review its compliance boundary and corrective action rules in 15A NCAC 2L for clarity and consistency, and to report the results of its review to the Environmental Review Commission (ERC) by December 1, 2014. In its review (See Chapter IV of this report for the report to the ERC), the Environmental Management Commission identified five clarity or consistency issues in Rule 15A NCAC 2L .0106 that require that rule to be revised:

1. The use of the terminology "non-permitted" in 15A NCAC 2L .0106 to refer to some activities that in fact have permits;
2. disagreement between the EMC and a recent court ruling over the interpretation of "immediate action to eliminate the source or sources of contamination," and the relevance of 15A NCAC 2L .0106(f) to such action;
3. whether, in the context of the corrective action rule, a compliance boundary is applicable to facilities that are truly permitted, but are considered "non-permitted" under 15A NCAC 2L .0106(e);
4. the omission of permits issued under Chapter 130A of North Carolina General Statutes from the definition of "permitted" activities under the corrective action rule (15A NCAC 2L .0106), even though such permits are given compliance boundaries under the compliance boundary rule (15A NCAC 2L .0107); and
5. various technical corrections and updates to reflect the current organizational structure of the Department of Environment and Natural Resources (DENR).

The Division of Water Resources completed a regulatory impact analysis pursuant to the North Carolina Administrative Procedures Act (APA) and determined the proposed amendments did not require a fiscal note. That analysis has been reviewed and found adequate by the Office of State Budget and Management (OSBM), with little or no impact on state and local governments.

### Comments and Responses Thereto

As part of the public hearing and comment process, as documented in Chapter III of this report, no oral comments were received a three (3) written comments were submitted to the Division. The letters in the entirety are included in Chapter V of this report. The following is a summary of the written comments received and Staff's response to each comment.

**Comment:** Mr. D.J. Gerken of the Southern Environmental Law Center (SELC) commented that the proposed revision to .0106(c)(2) significantly weakens requirements for active sources of contamination, noting that the shift from “immediate action to eliminate the source or sources of contamination” to actions taken “prior to or concurrent with” a detailed site assessment would delay action significantly.

**Response:** Historically, DENR and the EMC have interpreted the requirement in Paragraph (c) of the corrective action rule to take “immediate action to eliminate the source or sources of contamination” as requiring responsible parties and DENR to follow detailed procedures prescribed in the entirety of 15A NCAC 2L. The specific activities required to be undertaken prior to or concurrent with assessment activities are spelled out in 15A NCAC 2L .0106(f), which addresses actions requiring immediate action, such as prevention of fire, explosion, or the spread of noxious fumes, as well as those actions which may require a longer duration to undertake, or which may require assessment prior to action, such as removal, treatment, or control of primary and secondary sources of pollution. The proposed changes are intended to establish a clear link between the initial responses referenced in .0106(f), and with activities conducted in .0106(c), (d), and (e). **No additional rule changes are recommended.**

**Comment:** Mr. Mark McIntire of Duke Energy commented that the proposed revision to .0106(e) conflicts with G.S. 143-215.1(k), as amended by section 12(a) of the Coal Ash Management Act. This section of the Coal Ash Management Act directs the EMC to “require the permittee to undertake corrective action, without regard to the date that the system was first permitted...,” while the proposed revision continues to differentiate corrective action requirements based on the date a facility was originally permitted.

**Response:** Regardless of permit issuance date, any person conducting or controlling an activity which is conducted under the authority of a permit initially issued by the Department pursuant to G.S. 143-215.1 or G.S. 130A-294, and which results in an increase in concentration of a substance in excess of the standards at or beyond the compliance boundary specified in the permit, shall assess the cause, significance, and extent of the violation of standards and submit the results of the investigation and a plan and proposed schedule for corrective action to the Secretary or the Secretary’s designee. **No additional rule changes are recommended.**

**Comment:** Mr. D.J. Gerken of the Southern Environmental Law Center (SELC) commented that the proposed revision to .0106(e) ignores applicable review boundaries. He also commented that .0106(e) should be rewritten similarly to .0106(d) to address actions to be taken when contamination reaches a permitted facility’s review boundary

**Response:** It is recognized that consistent responses to exceedances at a review boundary regardless of permit date may be appropriate. However, changes to requirements for responses to exceedances at or beyond the review boundary are outside the scope of the EMC’s intent for this rule revision. It is recommended that the EMC consider this concern in required rule review under H74 in 2018. **No additional rule changes are recommended.**

**Comment:** Mr. D.J. Gerken of the Southern Environmental Law Center (SELC) commented that the proposed revision to .0106(c) and (e) make dealing with sources of contamination less clear. The revisions limit corrective action plans to restoration of groundwater quality and delete the requirement to immediately address sources of contamination. The revisions apply the same requirements for

addressing a source of contamination to both an “unauthorized release” and an “increase in the concentration of a substance in excess of the standard.”

**Response:** It is recommended that “respond in accordance with Paragraph (f) of this Rule” is added to .0106(d)(2) to ensure consistent responses are made for both unauthorized releases and for increases in the concentration of a substance in excess of the standard. Paragraph (f) requires all permittee to respond appropriately. In addition, it is recommended that the site assessment requirements in paragraph (g) be modified to include facilities covered by paragraph (d), so that all facility types are required to take the same site assessment steps listed in paragraph (g).

**Comment:** Mr. D.J. Gerken of the Southern Environmental Law Center (SELC) commented that the proposed revision to .0106(f) fails to clarify existing problems with the rule. The rule should define an “unauthorized release,” as well as “remove,” “treat,” and “control” [sources of contamination].

**Response:** It is recommended that reference to “unauthorized release” be removed to avoid confusion. Recommended changes to part .0106(c), (d), & (e) requiring response in accordance with .0106(f) allow for removal of language defining when a response under .0106(f) is needed. It is recommended that .0106(f) be changed to read:

Initial response required to be conducted prior to or concurrent with the assessment required in Paragraphs (c), (d), or (e) of this Rule, shall include, but is not limited to:

**Comment:** Mr. D.J. Gerken of the Southern Environmental Law Center (SELC) commented that proposed revision to .0106(k), (l), and (m) weaken requirements to restore groundwater at facilities permitted prior to December 30, 1983. The proposed revision would extend opportunities for older permitted facilities to take advantage of relaxed restoration requirements.

**Response:** The proposed rules do not change the corrective action options available to facilities permitted prior to December 30, 1983. **No additional rule changes are recommended.**

**Comment:** Mr. Grady McCallie of the North Carolina Conservation Network (NCCN) commented that the existing rule applies an inappropriate standard for contaminated groundwater discharging to surface water, noting that Paragraphs 15A NCAC 02L .0106(k)(5), .0106(l)(6), and .0106(m)(2)(C) should be revised to require either containment of a plume to prevent discharges of contaminated groundwater to surface water or authorization of the discharge under the Clean Water Act.

**Response:** Outside the scope of the EMC’s intent for this rule revision; address in required rule review under H74 in 2018. **No additional rule changes are recommended.**

**Comment:** Mr. Grady McCallie of the NCCN commented that the existing rule provides inadequate protection to neighboring properties; Paragraphs 15A NCAC 02L .0106(k)(3), .0106(l)(5), and .0106(m)(2)(B) do not offer adequate protection to neighboring properties from soil vapor intrusion or from future spread of contamination to neighboring properties.

**Response:** Outside the scope of the EMC’s intent for this rule revision; address in required rule review under H74 in 2018. .0106 in its entirety is intended to protect adjacent property owners from groundwater impacts. **No additional rule changes are recommended.**

**Comment:** Mr. Grady McCallie of the NCCN commented that legislation being debated in the NC General Assembly [at the time of the public comment period for this rule] for risk-based remediation may create unexpected effects on the rule. H765, Regulatory Reform Act of 2015, if it becomes law, would expand the existing program to cover virtually all soil and groundwater contamination and is likely to interact with the proposed rule in unexpected ways.

**Response:** Outside the scope of the EMC’s intent for this rule revision; address in implementation of H765. **No additional rule changes are recommended.**

**Comment:** Mr. Grady McCallie of the NCCN noted that no stakeholder process was conducted during the drafting of the proposed revisions to the rule. Since there was no stakeholder process prior to the public comment period, Mr. McCallie encourages the Commission to be particularly open to substantially revising and re-noticing the rule.

**Response:** The commission is very sensitive to the importance of public involvement in the rule making processes. However, recommended changes to the proposed rule language that resulted from public comments received during the public notice period do not appear to result in significant changes to the proposed rules. **For that reason it is not recommended that the rules are re-noticed.**

### Conclusion and Hearing Officer’s Recommendation

The amendments are proposed in response to the EMC’s review of Rule 15A NCAC 02L .0106, Corrective Action, and Rule 15A NCAC 02L .0107, Compliance Boundary, as required by Part VII of Session Law 2014-122.

Session Law 2014-122 (the Coal Ash Management Act of 2014) directs the EMC to review its compliance boundary and corrective action rules in 15A NCAC 2L for clarity and consistency, and to report the results of its review to the Environmental Review Commission (ERC) by December 1, 2014. The proposed rule amendments meet satisfy the five clarity or consistency issues in Rule 15A NCAC 2L .0106 that require that rule to be revised. The five issues addressed are as follows:

1. The use of the terminology “non-permitted” in 15A NCAC 2L .0106 to refer to some activities that in fact have permits;
2. disagreement between the EMC and a recent court ruling over the interpretation of “immediate action to eliminate the source or sources of contamination,” and the relevance of 15A NCAC 2L .0106(f) to such action;
3. whether, in the context of the corrective action rule, a compliance boundary is applicable to facilities that are truly permitted, but are considered “non-permitted” under 15A NCAC 2L .0106(e);
4. the omission of permits issued under Chapter 130A of North Carolina General Statutes from the definition of “permitted” activities under the corrective action rule (15A NCAC 2L .0106), even though such permits are given compliance boundaries under the compliance boundary rule (15A NCAC 2L .0107); and
5. various technical corrections and updates to reflect the current organizational structure of the Department of Environment and Natural Resources (DENR).

Public comments received as part of the public notice period and public hearings conducted on July 20 and September 10, 2015 have been considered and additional changes to the proposed rule have been made in response to the public comments. In addition comments have been received from the Departments Rules Coordinator to address ambiguous language contained in the proposed rules. These recommended changes include the following:

- Update of Introductory sentence to correctly reflect the status of the proposed rule,
- Add "as determined by the Department" after to the phrase "economically and technologically feasible",
- Replacement of "which" with "that" where appropriate,
- Removal of "any reasonable" with "a",
- Replacement of "must" with "shall",
- Removal of "thoroughly",
- Update the Historical Note to reflect the proposed adoption date.

It is recommended that the Environmental Management Commission approves the proposed amendments to Rule 15A NCAC 02L .0106, Corrective Action with additional modification as attached in Chapter II of this report.

The additional recommended amendments resulting from the public hearing processes should not be considered significant in nature and should not require re-noticing of the rule amendments.

## CHAPTER II: Rule Proposed for Adoption

This chapter presents the proposed rules as published with changes made in response to comments received during the public comment period incorporated. Chapter IV of this hearing record represents the proposed rules as originally noticed in the North Carolina Register for public comment.

### Rule Change Formatting Key:

For Rule Amendments:

~~Text~~ = deleted text

Text = added text

**Text** = existing text in what was published in the North Carolina Register (NCR) that is proposed to be deleted following the comment period

**Text** = text proposed to be added to what was published in the NCR following the comment period

**Text** = text initially proposed in the NCR to be deleted that is restored following the comment period

~~**Text**~~ = text proposed in the NCR to be added that is deleted following the comment period

Note: For new rules proposed for adoption, all text is initially underlined. If there are changes to the proposed new rule following publication in the NCR, the underlining is removed, deleted text is struck through, added text is underlined, and there is no highlighting.

15A NCAC 02L .0106 is proposed for amendment as follows:

15A NCAC 02L .0106 is amended with changes as published in 29:24 NCR 2790-2794 as follows:

### **15A NCAC 02L .0106 CORRECTIVE ACTION**

(a) Where groundwater quality has been degraded, the goal of any required corrective action shall be restoration to the level of the standards, or as closely thereto as is economically and technologically feasible as determined by the Department. In all cases involving requests to the ~~Director~~ Secretary, as defined in 15A NCAC 2C .0102, for approval of corrective action plans, or termination of corrective action, the responsibility for providing all information required by this Rule lies with the person(s) making the request.

(b) Any person conducting or controlling an activity ~~which that~~ results in the discharge of a waste or hazardous substance or oil to the groundwaters of the State, or in proximity thereto, shall take immediate action to terminate and control the discharge, mitigate any hazards resulting from exposure to the pollutants and notify the ~~Division~~ Department, as defined in 15A NCAC 2C .0102, of the discharge.

(c) Any person conducting or controlling an activity ~~which that~~ has not been permitted by the ~~Division~~ Department and ~~which that~~ results in an increase in the concentration of a substance in excess of the standard, other than agricultural operations, shall:

- (1) immediately within 24 hours of discovery of the violation, notify the ~~Division~~ Department of the activity that has resulted in the increase and the contaminant concentration levels;
- ~~(2) take immediate action to eliminate the source or sources of contamination;~~
- (2) respond in accordance with Paragraph (f) of this Rule;
- (3) submit a report to the ~~Director~~ Secretary assessing the cause, significance and extent of the violation; and
- (4) implement an approved corrective action plan for restoration of groundwater quality in accordance with a schedule established by the ~~Director, or his designee~~ Secretary. In establishing a schedule the ~~Director, or his designee~~ Secretary shall consider any reasonable a schedule proposed by the person submitting the plan. A report shall be made to the Health Director of the county or counties in which the contamination occurs in accordance with the requirements of Rule .0114(a) in this Section.

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 not permitted by the Department and subject to the provisions of this Paragraph of this Rule.

(d) Any person conducting or controlling an activity ~~which that~~ is conducted under the authority of a permit initially issued by the ~~Division~~ Department on or after December 30, 1983 pursuant to G.S. 143-215.1 or G.S. 130A-294 and ~~which that~~ results in an increase in concentration of a substance in excess of the standards:

- (1) at or beyond a review boundary, shall demonstrate, through predictive calculations or modeling, that natural site conditions, facility design and operational controls will prevent a violation of standards at the compliance boundary; or submit a plan for alteration of existing site conditions, facility design or operational controls that will prevent a violation at the compliance boundary, and implement that plan upon its approval by the ~~Director, or his designee~~ Secretary.

- (2) at or beyond a compliance boundary shall respond in accordance with Paragraph (f) of this Rule, assess the cause, significance and extent of the violation of standards and submit the results of the investigation, and a plan and proposed schedule for corrective action to the ~~Director, or his designee~~ Secretary. The permittee shall implement the plan as approved by and in accordance with a schedule established by the ~~Director, or his designee~~ Secretary. In establishing a schedule the ~~Director, or his designee~~ Secretary shall consider any reasonable schedule proposed by the permittee.

~~(e) For the purposes of Paragraphs (c) and (d) of this Rule, an activity conducted under the authority of a permit issued by the Division, and subject to Paragraph (d) of this Rule, is one for which:~~

- ~~(1) a permit has been issued pursuant to G.S. 143-215.1;~~  
~~(2) the permit was originally issued after December 30, 1983;~~  
~~(3) the substance for which a standard has been exceeded outside the compliance boundary has been released to groundwater as a result of the permitted activity;~~  
~~(4) all other activities shall for the purpose of this Rule be deemed not permitted by the Division and subject to the provisions of Paragraph (c) of this Rule.~~

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

- (1) within 24 hours of discovery of the violation, notify the Department of the activity that has resulted in the increase and the contaminant concentration levels;  
(2) respond in accordance with Paragraph (f) of this Rule;  
(3) submit a report to the Secretary assessing the cause, significance and extent of the violation; and  
(4) implement an approved corrective action plan for restoration of groundwater quality at or beyond the compliance boundary, in accordance with a schedule established by the Secretary. In establishing a schedule the Secretary shall consider any reasonable schedule proposed by the person submitting the plan. A report shall be made to the Health Director of the county or counties in which the contamination occurs in accordance with the requirements of Rule .0114(a) in this Section.

(f) Corrective action Initial response required following discovery of the unauthorized release of a contaminant to the surface or subsurface of the land, and to be conducted prior to or concurrent with the assessment required in Paragraphs (c) and (d) (c), (d), or (e) of this Rule; shall include, but is not limited to: include:

- (1) Prevention of fire, explosion or the spread of noxious fumes;  
(2) Abatement, containment or control of the migration of contaminants;  
(3) Removal, or ~~treatment~~ treatment, or and control of any primary pollution source such as buried waste, waste stockpiles or surficial accumulations of free products;  
(4) Removal, ~~treatment~~ or treatment, or control of secondary pollution sources which that would be potential continuing sources of pollutants to the groundwaters such as contaminated soils and non-aqueous phase liquids. Contaminated soils which that threaten the quality of groundwaters must shall be treated, contained or disposed of in accordance with applicable rules. The treatment or disposal of

contaminated soils shall be conducted in a manner that will not result in a violation of standards or North Carolina Hazardous Waste Management rules.

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

- (1) The source and cause of contamination;
- (2) Any imminent hazards to public health and safety and actions taken to mitigate them in accordance with Paragraph (f) of this Rule;
- (3) All receptors and significant exposure pathways;
- (4) The horizontal and vertical extent of soil and groundwater contamination and all significant factors affecting contaminant transport; and
- (5) Geological and hydrogeological features influencing the movement, chemical, and physical character of the contaminants.

Reports of site assessments shall be submitted to the ~~Division~~ Department as soon as practicable or in accordance with a schedule established by the ~~Director, or his designee~~ Secretary. In establishing a schedule the ~~Director, or his designee~~ Secretary shall consider any reasonable a proposal by the person submitting the report.

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

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

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

(j) A corrective action plan prepared pursuant to Paragraph ~~(e) or (d)~~ (c), (d), or (e) of this Rule must shall be implemented using the best available technology for restoration of groundwater quality to the level of the standards, except as provided in Paragraphs (k), (l), (m), (r) and (s) of this Rule.

(k) Any person required to implement an approved corrective action plan for a ~~non-permitted site pursuant to site subject to Paragraph (c) or (e) of this Rule~~ may request that the ~~Director~~ Secretary approve such a plan without requiring groundwater remediation to the standards. A request submitted to the ~~Director~~ Secretary under this Paragraph shall include a description of site specific conditions, including information on the availability of public water supplies for the affected area; the technical basis for the request; and any other information requested by the ~~Director~~ Secretary to thoroughly evaluate the request. In addition, the person making the request must shall demonstrate to the satisfaction of the ~~Director~~ Secretary:

- (1) that all sources of contamination and free product have been removed or controlled pursuant to Paragraph (f) of this Rule;
- (2) that the time and direction of contaminant travel can be predicted with reasonable certainty;

- (3) that contaminants have not and will not migrate onto adjacent properties, or that:
  - (A) such properties are served by an existing public water supply system dependent on surface waters or hydraulically isolated groundwater, or
  - (B) the owners of such properties have consented in writing to the request;
- (4) that the standards specified in Rule .0202 of this Subchapter will be met at a location no closer than one year time of travel upgradient of an existing or foreseeable receptor, based on travel time and the natural attenuation capacity of subsurface materials or on a physical barrier to groundwater migration that exists or will be installed by the person making the request;
- (5) that, if the contaminant plume is expected to intercept surface waters, the groundwater discharge will not possess contaminant concentrations that would result in violations of standards for surface waters contained in 15A NCAC 2B .0200;
- (6) that public notice of the request has been provided in accordance with Rule .0114(b) of this Section;
- (7) that the proposed corrective action plan would be consistent with all other environmental laws.

(1) Any person required to implement an approved corrective action plan for a ~~non-permitted site pursuant to~~ site subject to Paragraph (c) or (e) of this Rule may request that the ~~Director~~ Secretary approve such a plan based upon natural processes of degradation and attenuation of contaminants. A request submitted to the ~~Director~~ Secretary under this Paragraph shall include a description of site specific conditions, including written documentation of projected groundwater use in the contaminated area based on current state or local government planning efforts; the technical basis for the request; and any other information requested by the ~~Director~~ Secretary to thoroughly evaluate the request. In addition, the person making the request must shall demonstrate to the satisfaction of the ~~Director~~ Secretary:

- (1) that all sources of contamination and free product have been removed or controlled pursuant to Paragraph (f) of this Rule;
- (2) that the contaminant has the capacity to degrade or attenuate under the site-specific conditions;
- (3) that the time and direction of contaminant travel can be predicted with reasonable certainty;
- (4) that contaminant migration will not result in any violation of applicable groundwater standards at any existing or foreseeable receptor;
- (5) that contaminants have not and will not migrate onto adjacent properties, or that:
  - (A) such properties are served by an existing public water supply system dependent on surface waters or hydraulically isolated groundwater, or
  - (B) the owners of such properties have consented in writing to the request;
- (6) that, if the contaminant plume is expected to intercept surface waters, the groundwater discharge will not possess contaminant concentrations that would result in violations of standards for surface waters contained in 15A NCAC 2B .0200;
- (7) that the person making the request will put in place a groundwater monitoring program sufficient to track the degradation and attenuation of contaminants and contaminant by-products within and down gradient of the plume and to detect contaminants and contaminant by-products prior to their reaching any existing or

foreseeable receptor at least one year's time of travel upgradient of the receptor and no greater than the distance the groundwater at the contaminated site is predicted to travel in five years;

- (8) that all necessary access agreements needed to monitor groundwater quality pursuant to SubParagraph (7) of this Paragraph have been or can be obtained;
- (9) that public notice of the request has been provided in accordance with Rule .0114(b) of this Section; and
- (10) that the proposed corrective action plan would be consistent with all other environmental laws.

(m) The ~~Division~~ Department or any person required to implement an approved corrective action plan for a ~~non-permitted site pursuant to~~ site subject to Paragraph (c) or (e) of this Rule may request that the ~~Director~~ Secretary approve termination of corrective action.

- (1) A request submitted to the ~~Director~~ Secretary under this Paragraph shall include:
  - (A) a discussion of the duration of the corrective action, the total project's cost, projected annual cost for continuance and evaluation of the success of the corrective action;
  - (B) an evaluation of alternate treatment technologies which that could result in further reduction of contaminant levels projected capital and annual operating costs for each technology;
  - (C) effects, including health and safety impacts, on groundwater users if contaminant levels remain at levels existing at the time corrective action is terminated; and
  - (D) any other information requested by the ~~Director~~ Secretary to thoroughly evaluate the request.
- (2) In addition, the person making the request must shall demonstrate to the satisfaction of the ~~Director~~ Secretary:
  - (A) that continuation of corrective action would not result in a significant reduction in the concentration of contaminants contaminants. -(At a minimum this demonstration must show the duration and degree of success of existing remedial efforts to attain standards and include a showing that the asymptotic slope of the contaminants curve of decontamination is less than a ratio of 1:40 over a term of one year based on quarterly sampling) This demonstration shall show the duration and degree of success of existing remedial efforts to attain standards and include a showing that the asymptotic slope of the contaminants curve of decontamination is less than a ratio of 1:40 over a term of one year based on quarterly sampling.;
  - (B) that contaminants have not and will not migrate onto adjacent properties, or that:
    - (i) such properties are served by an existing public water supply system dependent on surface waters or hydraulically isolated groundwater, or
    - (ii) the owners of such properties have consented in writing to the request;
  - (C) that, if the contaminant plumes expected to intercept surface waters, the groundwater discharge will not possess contaminant concentrations that

- would result in violations of standards for surface waters contained in 15A NCAC 2B .0200;
- (D) that public notice of the request has been provided in accordance with Rule .0114(b) of this Section; and
- (E) that the proposed termination would be consistent with all other environmental laws.
- (3) The ~~Director~~ Secretary shall not authorize termination of corrective action for any area that, at the time the request is made, has been identified by a state or local groundwater use planning process for resource development.
- (4) The ~~Director~~ Secretary may authorize the termination of corrective action, or amend the corrective action plan after considering all the information in the request. Upon termination of corrective action, the ~~Director~~ Secretary shall require implementation of a groundwater monitoring program sufficient to track the degradation and attenuation of contaminants at a location of at least one year's predicted time of travel upgradient of any existing or foreseeable receptor. The monitoring program shall remain in effect until there is sufficient evidence that the contaminant concentrations have been reduced to the level of the standards.
- (n) Upon a determination by the ~~Director~~ Secretary that continued corrective action would result in no significant reduction in contaminant concentrations, and the contaminated groundwaters can be rendered potable by treatment using readily available and economically reasonable technologies, the ~~Director~~ Secretary may designate the remaining area of degraded groundwater RS. Where the remaining degraded groundwaters cannot be made potable by such treatment, the ~~Director~~ Secretary may consider a request for reclassification of the groundwater to a GC classification as outlined in Rule .0201 of this Subchapter.
- (o) If at any time the ~~Director~~ Secretary determines that a new technology is available that would remediate the contaminated groundwater to the standards specified in Rule .0202 of this Subchapter, the ~~Director~~ Secretary may require the responsible party to evaluate the economic and technological feasibility of implementing the new technology in an active groundwater corrective action plan in accordance with a schedule established by the ~~Director~~ Secretary. The ~~Director's~~ Secretary's determination to utilize new technology at any site or for any particular constituent shall include a consideration of the factors in Paragraph (h) of this Rule.
- (p) Where standards are exceeded as a result of the application of pesticides or other agricultural chemicals, the ~~Director~~ Secretary shall request the Pesticide Board or the Department of Agriculture Department of Agriculture and Consumer Services to assist the ~~Division of Environmental Management~~ Department in determining the cause of the violation. If the violation is determined to have resulted from the use of pesticides, the ~~Director~~ Secretary shall request the Pesticide Board to take appropriate regulatory action to control the use of the chemical or chemicals responsible for, or contributing to, such violations, or to discontinue their use.
- (q) The approval pursuant to this Rule of any corrective action plan, or modification or termination thereof, which that permits the migration of a contaminant onto adjacent property, shall not affect any private right of action by any party which that may be effected by that contamination.
- (r) If a discharge or release is not governed by 15A NCAC 2L .0115 and the increase in the concentration of a substance in excess of the standard resulted in whole or in part from a release from a commercial or noncommercial underground storage tank as defined in G.S. 143-215.94A, any person required to implement an approved corrective action plan pursuant to this Rule and seeking reimbursement for the Commercial or Noncommercial Leaking Petroleum Underground

Storage Tank Cleanup Funds shall implement a corrective action plan meeting the requirements of Paragraph (k) or (l) of this Rule unless such a person demonstrates to the ~~Director~~ Secretary that:

- (1) contamination resulting from the discharge cannot qualify for approval of a plan based on the requirements of the Paragraphs; or
  - (2) the cost of making such a demonstration would exceed the cost of implementing a corrective action plan submitted pursuant to Paragraph (c) of this Rule.
- (s) If a discharge or release is not governed by 15A NCAC 2L .0115 and the increase in the concentration of a substance in excess of the standard resulted in whole or in part from a release from a commercial or noncommercial underground storage tank as defined in G.S. 143-215.94A, the ~~Director~~ Secretary may require any person implementing or operating a previously approved corrective action plan pursuant to this Rule to:
- (1) develop and implement a corrective action plan meeting the requirements of Paragraphs (k) and (l) of this Rule; or
  - (2) seek discontinuance of corrective action pursuant to Paragraph (m) of this Rule.

*History Note: Authority G.S. 143-215.2; 143-215.3(a)(1); 143-215.94A; 143-215.94T; 143-215.94V; 143B-282;  
1995 (Reg. Sess. 1996) c. 648, s. 1;  
Eff. August 1, 1989;  
Amended Eff. October 1, 1993; September 1, 1992;  
Temporary Amendment Eff. January 2, 1998; January 2, 1996;  
Amended Eff. April 1, 2016; October 29, 1998.*

## CHAPTER III: Report of Proceedings

### Public Notice

Notice of Text of the proposed rule was filed with the Office of Administrative Hearings on May 22, 2015. The proposed rule and information about the public comment period, public hearing, and instructions on how to submit comments was published in the North Carolina Register volume 29, issue 24 on June 15, 2015.

Notice and information about the proposed rule was not posted on the agency website until July 17, 2015. Due to this failure to follow the Administrative Procedures Act, the comment period on the rules was extended to September 12, 2015 and a second public hearing was scheduled for September 10, 2015. Notice of the extended comment period was published in the NC Register volume 30, issue 3 on August 3, 2015.

A press release was issued by the Department of Environment and Natural Resources in advance of each hearing.

## Notice of Public Hearing

### Background:

In accordance with Session Law 2014-122 (the Coal Ash Management Act of 2014), the Environmental Management Commission (EMC) has conducted a review of its compliance boundary and corrective action rules in 15A NCAC 2L for clarity and consistency, and reported the results of this review to the Environmental Review Commission (ERC) on November 20, 2014.

In its review, the EMC identified five clarity or consistency issues in Rule 15A NCAC 2L .0106 that require this rule to be revised: (1)The use of the terminology “non-permitted” in 15A NCAC 2L .0106 to refer to some activities that in fact have permits; (2)Disagreement between the EMC and a recent court ruling over the interpretation of “immediate action to eliminate the source or sources of contamination,” and the relevance of 15A NCAC 2L .0106(f) to such action; (3)whether, in the context of the corrective action rule, a compliance boundary is applicable to facilities that are truly permitted, but are considered “non-permitted” under 15A NCAC 2L .0106(e); (4)the omission of permits issued under Chapter 130A of North Carolina General Statutes from the definition of “permitted” activities under rule 15A NCAC 2L .0106, even though such permits are given compliance boundaries under rule 15A NCAC 2L .0107; and (5)various technical corrections and updates to reflect the current organizational structure of the Department of Environment and Natural Resources (DENR).

From this review, the EMC has determined that it is necessary to revise the Corrective Action rule 15A NCAC 2L .0106.

### Summary of the Proposed Rule and Proposed Amendments:

Rule 15A NCAC 2L .0106 establishes requirements for corrective action for activities that result in groundwater contamination at levels in excess of the groundwater standards. The proposed revision of would change the existing rule in five ways:

- Establish three categories of activities and corrective action requirements for each: Non-permitted, permitted on or after December 30, 1983, and permitted prior to December 30, 1983.
- Clarify the rule by replacing “immediate” notification to DENR following discovery of groundwater contamination with a requirement to provide notification to DENR within 24 hours.
- Replace the phrase “take immediate action to eliminate the source” of contamination with more specific requirements in 15A NCAC 2L .0106(f).
- Clarify that persons conducting permitted activities must restore groundwater quality at or beyond the compliance boundary established for the permitted activity.
- Make other minor technical changes to reflect the current organizational structure of DENR.

### How to Submit Comments:

The purpose of this announcement is to encourage those interested in this proposal to provide comments. You may submit written comments, data or other relevant information by August 14, 2015.

The EMC will hold a Public Hearing at 6:30 PM on Monday, July 20, 2015 at the Archdale Building Ground Floor Hearing Room, 512 N. Salisbury St., Raleigh, NC 27604.

The EMC is very interested in all comments pertaining to the proposed rule revisions. All persons interested in and potentially affected by the proposal are strongly encouraged to make comments. Written comments may be submitted to Evan Kane of the Water Planning Section at the postal address or e-mail address listed below.

Evan Kane  
Division of Water Resources  
1611 Mail Service Center  
Raleigh, NC 27699-1611  
[CorrectiveActionRule@lists.ncmail.net](mailto:CorrectiveActionRule@lists.ncmail.net)

Pat McCrory, Governor



Donald R. van der Vaart, Secretary

## N.C. Department of Environment and Natural Resources

Release: Immediate  
Date: Sept. 3, 2015

Contact: Sarah Young  
Phone: 919-707-9033

### Second public hearing set for next week on proposed changes to state groundwater rules

**RALEIGH** – State officials will hold a second public hearing Sept. 10 in Raleigh to gather comments on proposed changes to the state’s groundwater rules.

The proposed changes include more clearly defined requirements for addressing groundwater pollution and clearer notification requirements when contamination is discovered.

The N.C. Environmental Management Commission, which adopts rules that protect the state’s air and water resources, will hold the hearing at 6:30 p.m. in the Ground Floor Hearing Room of the Archdale Building, 512 North Salisbury St., Raleigh. The first hearing was held on July 20 in the same location.

The commission initiated the process to clarify and make more consistent language addressing compliance boundaries and corrective action. The results of the commission’s review were reported to the legislative Environmental Review Commission in November.

The rules under consideration establish requirements for corrective action for activities that result in groundwater contamination at levels that exceed the state standards. The proposed changes would:

- Establish three categories for classification of facilities that have caused groundwater impacts as non-permitted, permitted prior to Dec. 30, 1983, and permitted on or after Dec. 30, 1983. Corrective action requirements are proposed for each category.
- Define “immediate notification” to the N.C. Department of Environment and Natural Resources as within 24 hours of the discovery of groundwater contamination.
- Define specific requirements for removal, treatment or control of a primary pollutant source.
- Clarify that people conducting permitted activities must restore groundwater quality at or beyond the compliance boundary established for the permitted activity.
- Make other minor technical changes to reflect the current organizational structure of the N.C. Department of Environment and Natural Resources.

The complete text of the proposed changes can be found on the N.C. Division of Water Resources’ website at:

[http://portal.ncdenr.org/c/document\\_library/get\\_file?uid=5681af10-72c7-495e-8cc3-b4acb532eb80&groupId=38364](http://portal.ncdenr.org/c/document_library/get_file?uid=5681af10-72c7-495e-8cc3-b4acb532eb80&groupId=38364).

People may submit written comments, data or other relevant information by Sept. 12.

Comments should be mailed to: Groundwater Planning and Environmental Review Branch, N.C. Division of Water Resources, 1611 Mail Service Center, Raleigh, N.C. 27699-1611, or by email to [CorrectiveActionRule@lists.ncmail.net](mailto:CorrectiveActionRule@lists.ncmail.net). All comments submitted should reference “Corrective Action Rule.”

###

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Pat McCrory, Governor



Donald R. van der Vaart, Secretary

## N.C. Department of Environment and Natural Resources

Release: Immediate  
Date: July 16, 2015

Contact: Sarah Young  
Phone: 919-707-9033

**RALEIGH** – State officials will hold a public hearing July 20 in Raleigh to gather comments on changes to the state’s groundwater rules.

In accordance with Session Law 2014-122 (the Coal Ash Management Act of 2014), the Environmental Management Commission (EMC) conducted a review of the compliance boundary and corrective action within the groundwater rules for clarity and consistency. Results of this review were reported to the Environmental Review Commission (ERC) on November 20, 2014.

The EMC will hold a public hearing at 6:30 p.m. on Monday, July 20, 2015 in the Archdale Building Ground Floor Hearing Room, 512 N. Salisbury St., Raleigh, NC 27604.

The groundwater rules establish requirements for corrective action for activities that result in groundwater contamination at levels that exceed the groundwater standards. The proposed revision would change the existing rule in five ways:

- Establish three categories of corrective action requirements for each activity that results in contamination: Non-permitted, permitted on or after December 30, 1983, and permitted prior to December 30, 1983.
- Define immediate notification to DENR as within 24 hours following discovery of groundwater contamination.
- Define specific requirements to eliminate the source of contamination.
- Clarify that persons conducting permitted activities must restore groundwater quality at or beyond the compliance boundary established for the permitted activity.
- Make other minor technical changes to reflect the current organizational structure of the Department of Environment and Natural Resources.

The purpose of this announcement is to encourage those interested in this proposal to provide comments. You may submit written comments, data or other relevant information by August 14, 2015.

People may submit written comments, data or other relevant information by Sept. 12.

Comments should be mailed to: Groundwater Planning and Environmental Review Branch, N.C. Division of Water Resources, 1611 Mail Service Center, Raleigh, N.C. 27699-1611, or by email to [CorrectiveActionRule@lists.ncmail.net](mailto:CorrectiveActionRule@lists.ncmail.net). All comments submitted should reference “Corrective Action Rule.”

###

Jamie Kritzer, Public Information Officer  
Phone: (919) 707-8602  
1601 Mail Service Center, Raleigh, NC 27699-1601

[Jamie.Kritzer@ncdenr.gov](mailto:Jamie.Kritzer@ncdenr.gov)

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[Transcript of July 20, 2015 Hearing](#)

The following people attended the July 20, 2015 Hearing:

Hearing Officer:

Mr. Gerard Carroll, Environmental Management Commission

Staff:

Mr. Craig Caldwell, DENR-DWR

Mr. Evan Kane, DENR-DWR

Ms. Amy Keyworth, DENR-DWR

Ms. Susan Massengale, DENR-DWR

Mr. David Wainwright, DENR-DWR

Mr. Sarah Young, DENR-DWR

Ms. Linda Culpepper, DENR-DWM

Members of the Public:

Mr. Keith Larick, NC Farm Bureau

Mr. Preston Howard, NC Manufacturers Alliance

Charmain Carroll: *Good evening. This public hearing is now called to order.*

*We ask that you please silence all mobile phones and electronic devices at this time. Thank you.*

*My name is Gerard Carroll. I am the chair of the Environmental Management Commission and have been selected as the presiding officer for today's hearing.*

*The purpose of this meeting is to receive public comment on draft rule revisions to the Environmental Management Commission's rule for corrective action in response to groundwater contamination, Rule 15A NCAC 2L .0106.*

*The Environmental Management Commission is interested in relevant, scientific, technical, economic, and social information that may assist the Commission in its consideration of these rules.*

*This meeting is being held under the authority of North Carolina General Statute 143-215.3 and General Statute 150B. In accordance with General Statute 150B, a public notice containing the proposed changes was published in the June 15, 2015 edition of the North Carolina Register. Notices were sent to those who have requested to be placed on the Division of Water Resources' rule-making e-mail notification list. Notice to the public was also provided through the Department and Division's websites.*

*A written record of this hearing will be prepared for the Commission. For this reason, the audio of this hearing is being recorded.*

*This is the second public hearing on the proposed revision to this rule. An earlier hearing was held on July 20.*

*The public comment period for this rulemaking has been extended to September 12, 2015. Written comments received by that date will also be included as part of the record. Written comments may be*

*submitted in writing to the address found on the handout available tonight. Equal weight is given to both written and oral comments.*

*In making any final decision, the EMC considers the public comments record, input of DENR staff, the suggestions of the hearing officer and any concerns of the commission members. Based upon careful consideration by myself and the DENR staff, I will make recommendations for action to the Environmental Management Commission. The recommendation may be to adopt the proposed rule, to adopt a modified version of the rule that may be more or less stringent than the current proposal, or to not adopt specific revisions to the rule. Then the Commission will make its decision by considering our recommendations, the written record, and any concerns of other commission members. The Commission may adopt my recommendations, modify them, or reject them. If the Commission wishes to adopt a rule that differs substantially from what has been published in the North Carolina Register and proposed this evening, it must first publish the text of the proposed different rule and accept comments on the new text.*

*I would like to introduce some of the staff members of the Division of Water Resources present tonight: Evan Kane, Craig Caldwell, Amy Keyworth, and David Wainwright of the Groundwater Planning and Environmental Review Branch; and Sarah Young and Susan Massengale of the Public Affairs office.*

*I will now ask Evan Kane from the Division of Water Resources to make a presentation addressing the proposed rule revisions. Following the staff presentation, we will receive oral comments.*

[PRESENTATION]

*Now that we have completed the presentation, we will move forward with receiving public comments. The Environmental Management Commission is very interested in all comments pertaining to the proposed rules, whether they are in favor of or opposed to any provisions of the proposed rules. All interested and potentially affected persons or parties are encouraged to make comments on the proposal presented today. Please know that your comments enable the commission to act in the best interest of the public.*

*It is important that you keep your comments concise and relevant to the proposed rules. Later, if you have other comments that you believe should be voiced to staff or to me as the Hearing Officer, we will try to give additional time at the end of the hearing to hear those comments.*

*I will call on those who initially registered to speak first, and, when they have finished, if others in the audience would like to comment, they will be given the opportunity to do so.*

*Based upon the number of persons requesting a chance to speak, each speaker will be limited to three minutes. This time limit will be enforced. Staff [indicate staff member with time cards] will provide signals indicating the time remaining. Please keep your comments concise and limit them to tonight's subject.*

*Your cooperation with this time limit helps ensure that everyone who wishes to speak is able to do so. If you have written copies of your comments, we would appreciate receiving a copy. Presenters are encouraged to provide written comments that address the subject of tonight's meeting in greater detail.*

*Cross-examination of persons presenting remarks will not be allowed. I may ask questions for clarification. Should any people in the audience have questions; staff will be available after the meeting*

*to answer them. We expect that everyone will respect the right of others to present comments without interruption.*

*I will call persons who have indicated they wish to speak to the podium one at a time, based on the order of registration. To ensure that our records are complete, please indicate clearly your name and any affiliations you feel are pertinent to the subject of this hearing. In the interest of time, I will also announce the next in line, so you can approach the microphone and be prepared when it is your turn.*

[No one had signed up to speak]

*Is there anyone else that would like to comment?*

*If there is no one else who wishes to speak, this hearing is closed.*

*The public comment period for these draft rules will remain open until September 12, 2015. Anytime between today and 5:00 PM September 12, 2015, you may submit written comments on the proposed rules. Written comments received by US Mail or by e-mail during this time period will be made a part of the public record.*

*Thank you all for your attendance and interest.*

*This meeting is now closed.*

#### [Transcript - September 10, 2015 Hearing](#)

*Chairman Carroll: This meeting is called to order. It is 6:40. No members of the public are present, so I call this meeting adjourned. The time is 6:41.*

## CHAPTER IV: Proposed Rules as Posted for Public Comment.

15A NCAC 02L .0106 is proposed for amendment as follows:

### **15A NCAC 02L .0106 CORRECTIVE ACTION**

(a) Where groundwater quality has been degraded, the goal of any required corrective action shall be restoration to the level of the standards, or as closely thereto as is economically and technologically feasible. In all cases involving requests to the ~~Director~~ Secretary, as defined in 15A NCAC 2C .0102, for approval of corrective action plans, or termination of corrective action, the responsibility for providing all information required by this Rule lies with the person(s) making the request.

(b) Any person conducting or controlling an activity which results in the discharge of a waste or hazardous substance or oil to the groundwaters of the State, or in proximity thereto, shall take immediate action to terminate and control the discharge, mitigate any hazards resulting from exposure to the pollutants and notify the ~~Division~~ Department, as defined in 15A NCAC 2C .0102, of the discharge.

(c) Any person conducting or controlling an activity which has not been permitted by the ~~Division~~ Department and which results in an increase in the concentration of a substance in excess of the standard, other than agricultural operations, shall:

- (1) ~~immediately within 24 hours of discovery of the violation, notify the Division~~ Department of the activity that has resulted in the increase and the contaminant concentration levels;
- ~~(2) take immediate action to eliminate the source or sources of contamination;~~
- (2) respond in accordance with Paragraph (f) of this Rule;
- (3) submit a report to the ~~Director~~ Secretary assessing the cause, significance and extent of the violation; and
- (4) implement an approved corrective action plan for restoration of groundwater quality in accordance with a schedule established by the ~~Director, or his designee.~~ Secretary. In establishing a schedule the ~~Director, or his designee~~ Secretary shall consider any reasonable schedule proposed by the person submitting the plan. A report shall be made to the Health Director of the county or counties in which the contamination occurs in accordance with the requirements of Rule .0114(a) in this Section.

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 not permitted by the Department and subject to the provisions of this Paragraph of this Rule.

(d) Any person conducting or controlling an activity which is conducted under the authority of a permit initially issued by the ~~Division~~ Department on or after December 30, 1983 pursuant to G.S. 143-215.1 or G.S. 130A-294 and which results in an increase in concentration of a substance in excess of the standards:

- (1) at or beyond a review boundary, shall demonstrate, through predictive calculations or modeling, that natural site conditions, facility design and operational controls will prevent a violation of standards at the compliance boundary; or submit a plan for alteration of existing site conditions, facility design or operational controls that will prevent a violation at the compliance boundary, and implement that plan upon its approval by the ~~Director, or his designee.~~ Secretary.

- (2) at or beyond a compliance boundary, shall assess the cause, significance and extent of the violation of standards and submit the results of the investigation, and a plan and proposed schedule for corrective action to the ~~Director, or his designee~~ Secretary. The permittee shall implement the plan as approved by and in accordance with a schedule established by the ~~Director, or his designee~~ Secretary. In establishing a schedule the ~~Director, or his designee~~ Secretary shall consider any reasonable schedule proposed by the permittee.

~~(e) For the purposes of Paragraphs (c) and (d) of this Rule, an activity conducted under the authority of a permit issued by the Division, and subject to Paragraph (d) of this Rule, is one for which:~~

- ~~(1) a permit has been issued pursuant to G.S. 143-215.1;~~  
~~(2) the permit was originally issued after December 30, 1983;~~  
~~(3) the substance for which a standard has been exceeded outside the compliance boundary has been released to groundwater as a result of the permitted activity;~~  
~~(4) all other activities shall for the purpose of this Rule be deemed not permitted by the Division and subject to the provisions of Paragraph (c) of this Rule.~~

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

- (1) within 24 hours of discovery of the violation, notify the Department of the activity that has resulted in the increase and the contaminant concentration levels;  
(2) respond in accordance with Paragraph (f) of this Rule;  
(3) submit a report to the Secretary assessing the cause, significance and extent of the violation; and  
(4) implement an approved corrective action plan for restoration of groundwater quality at or beyond the compliance boundary, in accordance with a schedule established by the Secretary. In establishing a schedule the Secretary shall consider any reasonable schedule proposed by the person submitting the plan. A report shall be made to the Health Director of the county or counties in which the contamination occurs in accordance with the requirements of Rule .0114(a) in this Section.

~~(f) Corrective action~~ Initial response required following discovery of the unauthorized release of a contaminant to the surface or subsurface of the land, and prior to or concurrent with the assessment required in Paragraphs ~~(c) and (d)~~ (c), (d), or (e) of this Rule, shall include, but is not limited to:

- (1) Prevention of fire, explosion or the spread of noxious fumes;  
(2) Abatement, containment or control of the migration of contaminants;  
(3) Removal, or ~~treatment~~ treatment, or and control of any primary pollution source such as buried waste, waste stockpiles or surficial accumulations of free products;  
(4) Removal, ~~treatment~~ or treatment, or control of secondary pollution sources which would be potential continuing sources of pollutants to the groundwaters such as contaminated soils and non-aqueous phase liquids. Contaminated soils which threaten the quality of groundwaters must be treated, contained or disposed of in accordance with applicable rules. The treatment or disposal of contaminated soils shall be conducted in a manner that will not result in a violation of standards or North Carolina Hazardous Waste Management rules.

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

- (1) The source and cause of contamination;
- (2) Any imminent hazards to public health and safety and actions taken to mitigate them in accordance with Paragraph (f) of this Rule;
- (3) All receptors and significant exposure pathways;
- (4) The horizontal and vertical extent of soil and groundwater contamination and all significant factors affecting contaminant transport; and
- (5) Geological and hydrogeological features influencing the movement, chemical, and physical character of the contaminants.

Reports of site assessments shall be submitted to the ~~Division~~ Department as soon as practicable or in accordance with a schedule established by the ~~Director, or his designee~~ Secretary. In establishing a schedule the ~~Director, or his designee~~ Secretary shall consider any reasonable proposal by the person submitting the report.

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

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

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

(j) A corrective action plan prepared pursuant to Paragraph ~~(e) or (d)~~ (c), (d), or (e) of this Rule must be implemented using the best available technology for restoration of groundwater quality to the level of the standards, except as provided in Paragraphs (k), (l), (m), (r) and (s) of this Rule.

(k) Any person required to implement an approved corrective action plan for a ~~non-permitted site pursuant to site subject to Paragraph (c) or (e)~~ of this Rule may request that the ~~Director~~ Secretary approve such a plan without requiring groundwater remediation to the standards. A request submitted to the ~~Director~~ Secretary under this Paragraph shall include a description of site specific conditions, including information on the availability of public water supplies for the affected area; the technical basis for the request; and any other information requested by the ~~Director~~ Secretary to thoroughly evaluate the request. In addition, the person making the request must demonstrate to the satisfaction of the ~~Director~~ Secretary:

- (1) that all sources of contamination and free product have been removed or controlled pursuant to Paragraph (f) of this Rule;
- (2) that the time and direction of contaminant travel can be predicted with reasonable certainty;
- (3) that contaminants have not and will not migrate onto adjacent properties, or that:
  - (A) such properties are served by an existing public water supply system dependent on surface waters or hydraulically isolated groundwater, or

- (B) the owners of such properties have consented in writing to the request;
- (4) that the standards specified in Rule .0202 of this Subchapter will be met at a location no closer than one year time of travel upgradient of an existing or foreseeable receptor, based on travel time and the natural attenuation capacity of subsurface materials or on a physical barrier to groundwater migration that exists or will be installed by the person making the request;
- (5) that, if the contaminant plume is expected to intercept surface waters, the groundwater discharge will not possess contaminant concentrations that would result in violations of standards for surface waters contained in 15A NCAC 2B .0200;
- (6) that public notice of the request has been provided in accordance with Rule .0114(b) of this Section;
- (7) that the proposed corrective action plan would be consistent with all other environmental laws.

(1) Any person required to implement an approved corrective action plan for a ~~non-permitted site pursuant to~~ site subject to Paragraph (c) or (e) of this Rule may request that the ~~Director~~ Secretary approve such a plan based upon natural processes of degradation and attenuation of contaminants. A request submitted to the ~~Director~~ Secretary under this Paragraph shall include a description of site specific conditions, including written documentation of projected groundwater use in the contaminated area based on current state or local government planning efforts; the technical basis for the request; and any other information requested by the ~~Director~~ Secretary to thoroughly evaluate the request. In addition, the person making the request must demonstrate to the satisfaction of the ~~Director~~ Secretary:

- (1) that all sources of contamination and free product have been removed or controlled pursuant to Paragraph (f) of this Rule;
- (2) that the contaminant has the capacity to degrade or attenuate under the site-specific conditions;
- (3) that the time and direction of contaminant travel can be predicted with reasonable certainty;
- (4) that contaminant migration will not result in any violation of applicable groundwater standards at any existing or foreseeable receptor;
- (5) that contaminants have not and will not migrate onto adjacent properties, or that:
  - (A) such properties are served by an existing public water supply system dependent on surface waters or hydraulically isolated groundwater, or
  - (B) the owners of such properties have consented in writing to the request;
- (6) that, if the contaminant plume is expected to intercept surface waters, the groundwater discharge will not possess contaminant concentrations that would result in violations of standards for surface waters contained in 15A NCAC 2B .0200;
- (7) that the person making the request will put in place a groundwater monitoring program sufficient to track the degradation and attenuation of contaminants and contaminant by-products within and down gradient of the plume and to detect contaminants and contaminant by-products prior to their reaching any existing or foreseeable receptor at least one year's time of travel upgradient of the receptor and no greater than the distance the groundwater at the contaminated site is predicted to travel in five years;

- (8) that all necessary access agreements needed to monitor groundwater quality pursuant to SubParagraph (7) of this Paragraph have been or can be obtained;
- (9) that public notice of the request has been provided in accordance with Rule .0114(b) of this Section; and
- (10) that the proposed corrective action plan would be consistent with all other environmental laws.

(m) The ~~Division~~ Department or any person required to implement an approved corrective action plan for a ~~non-permitted site pursuant to~~ site subject to Paragraph (c) or (e) of this Rule may request that the ~~Director~~ Secretary approve termination of corrective action.

- (1) A request submitted to the ~~Director~~ Secretary under this Paragraph shall include:
  - (A) a discussion of the duration of the corrective action, the total project's cost, projected annual cost for continuance and evaluation of the success of the corrective action;
  - (B) an evaluation of alternate treatment technologies which could result in further reduction of contaminant levels projected capital and annual operating costs for each technology;
  - (C) effects, including health and safety impacts, on groundwater users if contaminant levels remain at levels existing at the time corrective action is terminated; and
  - (D) any other information requested by the ~~Director~~ Secretary to thoroughly evaluate the request.
- (2) In addition, the person making the request must demonstrate to the satisfaction of the ~~Director~~ Secretary:
  - (A) that continuation of corrective action would not result in a significant reduction in the concentration of contaminants (At a minimum this demonstration must show the duration and degree of success of existing remedial efforts to attain standards and include a showing that the asymptotic slope of the contaminants curve of decontamination is less than a ratio of 1:40 over a term of one year based on quarterly sampling);
  - (B) that contaminants have not and will not migrate onto adjacent properties, or that:
    - (i) such properties are served by an existing public water supply system dependent on surface waters or hydraulically isolated groundwater, or
    - (ii) the owners of such properties have consented in writing to the request;
  - (C) that, if the contaminant plumes expected to intercept surface waters, the groundwater discharge will not possess contaminant concentrations that would result in violations of standards for surface waters contained in 15A NCAC 2B .0200;
  - (D) that public notice of the request has been provided in accordance with Rule .0114(b) of this Section; and
  - (E) that the proposed termination would be consistent with all other environmental laws.

- (3) The ~~Director~~ Secretary shall not authorize termination of corrective action for any area that, at the time the request is made, has been identified by a state or local groundwater use planning process for resource development.
- (4) The ~~Director~~ Secretary may authorize the termination of corrective action, or amend the corrective action plan after considering all the information in the request. Upon termination of corrective action, the ~~Director~~ Secretary shall require implementation of a groundwater monitoring program sufficient to track the degradation and attenuation of contaminants at a location of at least one year's predicted time of travel upgradient of any existing or foreseeable receptor. The monitoring program shall remain in effect until there is sufficient evidence that the contaminant concentrations have been reduced to the level of the standards.
- (n) Upon a determination by the ~~Director~~ Secretary that continued corrective action would result in no significant reduction in contaminant concentrations, and the contaminated groundwaters can be rendered potable by treatment using readily available and economically reasonable technologies, the ~~Director~~ Secretary may designate the remaining area of degraded groundwater RS. Where the remaining degraded groundwaters cannot be made potable by such treatment, the ~~Director~~ Secretary may consider a request for reclassification of the groundwater to a GC classification as outlined in Rule .0201 of this Subchapter.
- (o) If at any time the ~~Director~~ Secretary determines that a new technology is available that would remediate the contaminated groundwater to the standards specified in Rule .0202 of this Subchapter, the ~~Director~~ Secretary may require the responsible party to evaluate the economic and technological feasibility of implementing the new technology in an active groundwater corrective action plan in accordance with a schedule established by the ~~Director~~ Secretary. The ~~Director's~~ Secretary's determination to utilize new technology at any site or for any particular constituent shall include a consideration of the factors in Paragraph (h) of this Rule.
- (p) Where standards are exceeded as a result of the application of pesticides or other agricultural chemicals, the ~~Director~~ Secretary shall request the Pesticide Board or the Department of Agriculture to assist the ~~Division of Environmental Management~~ Department in determining the cause of the violation. If the violation is determined to have resulted from the use of pesticides, the ~~Director~~ Secretary shall request the Pesticide Board to take appropriate regulatory action to control the use of the chemical or chemicals responsible for, or contributing to, such violations, or to discontinue their use.
- (q) The approval pursuant to this Rule of any corrective action plan, or modification or termination thereof, which permits the migration of a contaminant onto adjacent property, shall not affect any private right of action by any party which may be effected by that contamination.
- (r) If a discharge or release is not governed by 15A NCAC 2L .0115 and the increase in the concentration of a substance in excess of the standard resulted in whole or in part from a release from a commercial or noncommercial underground storage tank as defined in G.S. 143-215.94A, any person required to implement an approved corrective action plan pursuant to this Rule and seeking reimbursement for the Commercial or Noncommercial Leaking Petroleum Underground Storage Tank Cleanup Funds shall implement a corrective action plan meeting the requirements of Paragraph (k) or (l) of this Rule unless such a person demonstrates to the ~~Director~~ Secretary that:
- (1) contamination resulting from the discharge cannot qualify for approval of a plan based on the requirements of the Paragraphs; or

- (2) the cost of making such a demonstration would exceed the cost of implementing a corrective action plan submitted pursuant to Paragraph (c) of this Rule.
- (s) If a discharge or release is not governed by 15A NCAC 2L .0115 and the increase in the concentration of a substance in excess of the standard resulted in whole or in part from a release from a commercial or noncommercial underground storage tank as defined in G.S. 143-215.94A, the ~~Director~~ Secretary may require any person implementing or operating a previously approved corrective action plan pursuant to this Rule to:
  - (1) develop and implement a corrective action plan meeting the requirements of Paragraphs (k) and (l) of this Rule; or
  - (2) seek discontinuance of corrective action pursuant to Paragraph (m) of this Rule.

*History Note: Authority G.S. 143-215.2; 143-215.3(a)(1); 143-215.94A; 143-215.94T; 143-215.94V; 143B-282;  
 1995 (Reg. Sess. 1996) c. 648, s. 1;  
 Eff. August 1, 1989;  
 Amended Eff. October 1, 1993; September 1, 1992;  
 Temporary Amendment Eff. January 2, 1998; January 2, 1996;  
 Amended Eff. October 29, 1998.*

## CHAPTER V: Written Comments Received during Comment Period



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September 12, 2015

Evan Kane  
Division of Water Resources  
1611 Mail Service Center  
Raleigh, NC 27699-1611

**Re: Proposed corrective action rule revision, 15A NCAC 2L .0106**

Dear Mr. Kane,

Thank you for the opportunity to comment on the Environmental Management Commission's (Commission) proposed revision of the corrective action rule, 15A NCAC 2L .0106. The NC Conservation Network is a state-level advocacy group working in partnership with 90 affiliate organizations and over 120,000 supporters to protect public health and the environment across North Carolina. We encourage the Commission to adopt a version of .0106 that stops the spread of groundwater contamination and protects local residents, communities, and surface water resources from exposures.

**Process concerns.** We appreciate the careful thought staff has put into this rule, within the parameters set by the NC General Assembly in last year's Coal Ash Management Act, S.L.2014-122. At the same time, we note that this rule did not benefit from the usual stakeholder process in advance of drafting. While such a process is not required by law, it can help Department of Environment & Natural Resources (DENR) staff and the Commission to raise issues for comment in the official public comment process. That kind of scoping helps the Commission avoid the awkward position of wanting to respond to compelling concerns raised in the public comment period but fearing that to do so will require re-noticing the rule. Since this complex rule did not benefit from stakeholder discussions, we hope the Commission will be particularly open to re-noticing it if needed to respond to our and others' comments.

Tied to the question of timelines, and discussed in more detail below, this corrective action rule may interact with changes to remediation statutes currently being debated by the NC General Assembly. The timing of this process has not allowed a seamless integration of corrective action with ultimate remediation requirements. It should, and the Commission should consider deferring further action on this rule pending clarity on proposed legislation.

**Plumes discharging to surface waters.** Proposed .0106(k)(5), .0106(l)(6), and .0106(m)(2)(C), include parallel language as a condition for approval or termination of a corrective action plan:

“that, if a contaminant plume is expected to intercept surface waters, the groundwater discharge will not possess contaminant concentrations that would result in violations of standards for surface waters contained in 15A NCAC 2B .0200.”

We think this is the wrong standard. The federal Clean Water Act forbids the unpermitted discharge of a pollutant from a point source into a water of the United States. Clean Water Act §502(14) defines a point source as “any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged.” A plume of contaminated groundwater is a ‘discernible, confined, and discrete conveyance’; moreover, the *source* of the plume is also a point source. Even if one were inclined to argue that a focused and distinct plume is somehow not a conveyance, it certainly becomes one when the agency approves a corrective action plan that relies on the plume to carry away and discharge contamination over time from the site into the receiving water. For these reasons, the proposed rule should instead note that:

‘If a contaminant plume is expected to intercept surface waters, and the corrective action plan does not propose to contain the plume, the applicant must obtain an authorization for the plume’s discharge to waters of the state as a condition of approval of the corrective action plan.’

Beyond the wording of the Clean Water Act, at least two policy rationales argue for this construction. First, the proposed wording conflicts with the Clean Water Act’s system for protection of ambient water quality. Multiple sources of a pollutant can contribute incremental quantities of pollution that do not, one by one, cause a violation of water quality standards, but in the aggregate cause impairment. The standard in the rule as proposed offers no mechanism to prevent this death by a thousand cuts. Worse, when ambient monitoring detects impairment, and the state begins to develop a Total Maximum Daily Load (TMDL) as required by the Clean Water Act, the approach in the proposed rule leaves the state without a mechanism to allocate load reductions to the parties responsible for corrective action.

Second, the state has adopted numeric surface water quality standards for a limited number of pollutants, while the set of pollutants across contaminated sites with plumes reaching groundwater is potentially much larger. As proposed, it appears that as long as the state lacks a standard for a pollutant, a plume intercepting a stream or river could contain any concentration of that pollutant without triggering a limit or requirement for control. We don’t imagine that the EMC intends this outcome.

If the Commission desires more nuance in this provision, one approach would be to distinguish between pollutants that are highly volatile and likely to off-gas as soon as they are out of groundwater and into a river or lake (and so could be exempt from permitting) versus those that are more persistent. But the final wording should recognize, as a default, that contaminant plumes cannot use the waters they intersect for unpermitted waste disposal. Under the Clean Water Act, waters cannot be designated as a sink for industrial waste, from concentrated groundwater plumes or from other sources.

**Impacts to neighbors and the spread of contamination.** Proposed .0106(k)(3), .0106(l)(5), and .0106(m)(2)(B) include parallel language addressing the extent to which, under a corrective action plan, contaminants can migrate onto adjacent properties. In all cases, the applicant must demonstrate:

“that contaminants have not and will not migrate onto adjacent properties, or that (i) such properties are served by an existing public water supply system dependent on surface waters or hydraulically isolated groundwater, or (ii) the owners of such properties have consented in writing to the request.”

This language does not adequately protect public health. A contaminant may be a risk not primarily through drinking water, but via vapor intrusion into a neighboring home or business. Condition (i) does not protect against that.

Condition (ii) creates a more subtle problem: a perverse incentive for the responsible party to let contamination spread. The condition is evidently intended to let the responsible party to negotiate with the injured neighbor. That raises justice concerns; in practice the responsible party will often be (comparatively) wealthy and legally sophisticated, while the neighbor has limited resources and no experience with this kind of negotiation. But beyond fairness, this structure also doesn't have any built in protection for the *next* neighbor over. Once the first adjacent neighbor decides to sign consent and accept a payment for their property, they are likely to move. They have no incentive to negotiate for the responsible party to control of the plume of contamination, and the responsible party has no immediate obligation to prevent the continued spread. In many cases, it will be cheaper for the responsible party to let the contamination continue to spread, paying off adjacent landowners as it reaches their properties, than to actually remediate the pollution. If the final rule retains this option, it needs to include some hard limit to allow negotiation only with respect to property that contamination has already reached at the time it is discovered.

**Relationship to changes in risk remediation.** During the 2015 state legislative session, the NC General Assembly is considering legislation that would significantly expand the existing risk-based remediation program for industrial sites. *H639, Risk Based Remediation Amendments*, and *H765, Regulatory Reform Act of 2015, §4.7*, are nearly identical; the latter is in conference between the NC House and NC Senate. Both would expand the narrow existing program to cover virtually all soil and groundwater contamination, past, present, and future, at such time as requirements for remediation are triggered. If these risk remediation expansions are enacted, they are likely to interact with the proposed rule in unexpected ways. That may be reason enough for the Commission to let the legislative session resolve, and then consider whether additional stakeholder discussion or a re-noticing of the proposed rule is appropriate.

One potential interaction is a shift in incentives for responsible parties to comply with the proposed rule in good faith. Currently, a responsible party may choose to delay their remediation efforts for as long as possible; on the other hand, they can expect that, someday, when they surrender their permit and the compliance boundary dissolves, they will have to clean up soil and groundwater contamination to near background levels. That often creates an incentive to minimize the source, and to implement the components of the ‘initial response’ in .0106(f) somewhat conscientiously. It also influences how one reads the existing requirement that “contaminated soils which threaten the quality of groundwaters must be treated, contained, or disposed of in accordance with applicable rules.” The current text fairly clearly means that contaminated soil must be buried in a lined landfill. However, in light of an expanded risk remediation option – which emphasizes leaving contamination in the ground and capping it in place – responsible parties in the future will be tempted to emphasize ‘contained’, and read that line to mean ‘capped in place’. And yet, .0106 does not say anything about land use restrictions or their recordation, or acceptable levels of exposure to nearby ‘receptors’, because under the existing provision, there are not supposed to be any. Before the Commission moves to finalize the proposed rule, it will be vital to disentangle these interactions, and to ensure that .0106 still has the effect of requiring a removal of the source of spreading contamination.

In conclusion, we appreciate the opportunity to offer these comments on the proposed revisions to the corrective action rule. This is an important rule, and we encourage the Commission to take the time needed to integrate it properly with remediation provisions, and to build in strong controls that will protect public health and the environment.

Sincerely,

Grady McCallie  
Policy Director  
NC Conservation Network

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 September 11, 2015

*Via First Class U.S. Mail and Electronic Mail*

Evan Kane  
Groundwater Planning and Environmental Review Branch Chief  
NC Division of Water Resources  
1611 Mail Service Center  
Raleigh, NC 27699-1611

Re: 2L Rule Revision Comments

Dear Mr. Kane:

The Southern Environmental Law Center submits these comments on behalf of Cape Fear River Watch, Sierra Club, MountainTrue, and the Waterkeeper Alliance. We appreciate the opportunity to comment on the Environmental Management Commission's ("EMC's") proposed changes to North Carolina's groundwater protection rules, specifically the corrective action provisions of 15A N.C. Admin. Code 2L .0106 ("§ .0106"). Collectively, our organizations advocate for thousands of North Carolinians who rely on groundwater for their drinking water, value the quality of North Carolina's groundwater, and will be adversely affected by the proposed rules.

As explained below, we are concerned that the proposed revisions significantly weaken North Carolina's groundwater protection standards, making it more difficult to prevent, arrest, and remediate groundwater contamination. Over half of all North Carolinians rely on groundwater as their source of drinking water.<sup>1</sup> Because these revisions would weaken protections for the drinking water of half of North Carolina's families, they are detrimental to the health and well-being of North Carolinians, make North Carolina a less desirable place to live and less marketable in the global economy. The EMC should reject the proposed changes and review the groundwater protection laws for inconsistencies anew (internal and with authorizing statutes), as directed by Session law 2014-122.

## **Background**

North Carolina's groundwater rules were enacted to "maintain and preserve the quality of the groundwaters, prevent and abate pollution and contamination of the waters of the state,

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<sup>1</sup> <http://www.ncgwa.org/>.

protect public health, and permit management of the groundwaters” as a source of drinking water. 15A N.C. Admin. Code 2L .0103(a). The rules apply to all activities conducted in the state which degrade groundwater quality. 15A N.C. Admin. Code 2L .0101(b). For years, North Carolina’s economy has thrived, and many of its businesses large and small have successfully complied with the corrective action requirements of § .0106, as currently drafted.

In 2012, conservation groups petitioned the EMC for a declaratory ruling clarifying the application of § .0106 to large, industrial facilities, specifically coal ash ponds owned by Duke Energy.<sup>2</sup> While the EMC’s decision in response to that request was on appeal, the General Assembly intervened and enacted new statutory groundwater corrective action requirements applicable to certain facilities, including many facilities owned by Duke Energy.<sup>3</sup> *See* N.C. Gen. Stat. § 143-215.1(k). Recognizing that the new statutory sections changed the law in some respects, the General Assembly instructed the EMC to review the “compliance boundary and corrective action provisions” of the 2L Rules for “clarity and internal consistency” as well as for consistency with the newly-codified statutory sections. Session Law 2012-122, § 12(c). This rulemaking followed. N.C. Register 2790 (June 15, 2015).

The Commission has a two-fold task before it. First, the Commission must ensure that the 2L Rule is consistent with the new corrective action requirements codified at N.C. Gen. Stat. § 143-215.1(k). Those requirements mandate that:

Where operation of a disposal system . . . results in exceedances of the groundwater quality standards at or beyond the compliance boundary, the Commission shall require the permittee to undertake corrective action, without regard to the date that the system was first permitted, to restore the groundwater quality by assessing the cause, significance, and extent of the violation of standards and submit the results of the investigation and a plan and proposed schedule for corrective action for the Director or the Director’s designee.

N.C. Gen. Stat. § 143-215.1(k). Second, the Commission must ensure that the 2L Rules are internally consistent and clear. *See* Session Law 2012-122, § 12(c). To rephrase, the Commission is prohibited from revising the 2L Rules in any manner that makes them inconsistent with statutory provisions, makes them less clear, or adds to their internal inconsistencies. Unfortunately, that is precisely what the Commission did through this proposed revision.

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<sup>2</sup> *See* 2012 December 18 Order of the Environmental Management Commission. Duke Energy Carolinas, LLC and Duke Energy Progress, Inc. intervened in that action; for simplicity we refer to both entities collectively as “Duke Energy.”

<sup>3</sup> Following the General Assembly’s intervention, the North Carolina Supreme Court dismissed the declaratory ruling action on mootness grounds in June 2015.

In response to the statutory mandate, the Commission identified five issues it believes require attention: (1) use of the term “non-permitted” to refer to activities that in fact have permits; (2) the relationship between the phrase “immediate action to eliminate the source or sources of contamination” and the requirements of § .0106(f); (3) the application of compliance boundaries to facilities that are regulated as “non-permitted” facilities but in fact have permits; (4) the omission of permits issued under N.C. Gen. Stat. Chapter 130A from the definition of “permitted” facilities; and (5) various technical corrections and updates. N.C. Register 2790 (June 15, 2015). But the revisions intended to clarify these issues only make the rules more inconsistent and less clear. As written, they must be rejected.

### **Proposed Revisions**

#### **1) The Proposed Revision to § .0106(c)(2) Significantly Weakens Requirements to Arrest Active Sources of Contamination**

Currently, section .0106(c)(2) requires “any person conducting or controlling an activity which has not been permitted . . . and which results in an increase in the concentration of a substance in excess of the [groundwater] standard, other than agricultural operations, [to] . . . *take immediate action to eliminate the source or sources of contamination.*” § .0106(c)(2)(emphasis added). This commonsense instruction requires entities that are actively contaminating groundwater to first arrest the source of contamination before beginning the long-term and often complicated project of remediating contaminated groundwater. The image of a leaking underground tank is illustrative: before remediating the impacts of the leak, the leak must be stopped.

The proposed revision substantially delays action to stop known and ongoing sources of groundwater contamination, abandoning the longstanding requirement for “immediate action” in favor of a cross reference to the less-urgent § .0106(f). The requirements of § .0106(f) are not implemented *immediately*, but “prior to *or concurrent with* the assessment.” § .0106(f)(emphasis added). Nothing dictates when an “assessment” must begin. Once initiated, the “assessment” must include analysis of: “all receptors and significant exposure pathways,” “the horizontal and vertical extent of soil and groundwater contamination and all significant factors affecting contaminant transport;” and “geological and hydrogeological features including the movement, chemical, and physical character of the contaminants” among other factors. § .0106(g)(revised). For many facilities, this in-depth analysis will require months of expert analysis. The result is that the requirement to immediately begin addressing sources of contamination is replaced with a requirement to begin addressing sources of contamination concurrent with the months-long process of “assessment.” This significantly increases the amount of time before a § .0106(c) (and § .0106(e) if revised) regulated entity that is actively contaminating groundwater must begin addressing sources of groundwater contamination, allowing further degradation of groundwater quality.

Moreover, because action to address the source must still be completed “prior to or concurrent with” the completion of the assessment work, the added delay provides no benefit in the form of greater site information to DENR or the responsible polluter that might offset the cost of the delay – delayed action to arrest continued contamination of groundwater by a known source. Groundwater pollution subject to the requirements of .0106(f) is *illegal* pollution. The groundwater protection rule prohibits disposal through discharge to groundwaters and requires, even under the redraft, to “take immediate action to terminate” such discharges. *See* § .0106(b). Unpermitted activities that discharge to groundwaters must terminate the discharge immediately. And the EMC is prohibited from issuing or renewing surface water discharge permits for activities that that will fail to protect applicable groundwater standards, at the compliance boundary, § .0107(k)(1), meaning that any permitted activity that causes a violation of groundwater standards is an *illegal* activity in violation of protective permit terms. Illegal discharges that are adversely affecting groundwater quality should not be granted an indefinite grace period (largely in the control of themselves or their contractors) to address a known source of contamination.

The proposed revision also creates ambiguity about the timing of action required under various sections of the 2L Rules. While the revision eliminates the protective requirement to take “immediate action to eliminate the source or sources of contamination” in § .0106(c)(2), the requirement to “take immediate action to terminate” the discharge of waste to the “groundwaters of the state, or proximity thereto,” remains in § .0106(b). Individuals subject to the rule will be left to wonder if they are subject to §§ .0106(c) & (f), or § .0106(b), or both.

This revision will have real and detrimental impacts. In 2013, the North Carolina Department of Environment and Natural Resources (“DENR”) sued Duke Energy, in part, for exceedances of groundwater standards at Duke’s ash ponds. Instead of requiring Duke to “take immediate action to eliminate the source of contamination” DENR chose instead to address those sources “concurrent with the assessment,” a process which is ongoing. As groundwater assessment activities labored on, hundreds of North Carolina residents near Duke’s coal ash ponds have been told their well water is unsafe to drink due to contamination in excess of the 2L and other health-based standards. DENR’s implementation of the strategy reflected in the proposed Rule revision – to wait and address sources of contamination concurrent with groundwater assessments, rather than require Duke to immediately begin the process of eliminating sources of groundwater contamination – has allowed delay that risks subjecting residents to ongoing and potentially increased contamination.

Finally, the proposed revision is unclear. Corrective action under the 2L Rule has generally been administered according to three different categories of facilities: (1) facilities without permits; (2) facilities with certain permits issued prior to Dec. 30, 1983; and (3) facilities with certain permits issued after Dec. 30, 1983. By its plain wording, § .0106(f) has applied to all unauthorized releases regardless of what “category” a facility belonged to. The proposed revision retains these categories (revised §§ .0106(c), (d), & (e)), and § .0106(f) continues to

apply to all unauthorized releases regardless of category, but for the first time the specific requirements of two individual categories cross reference the requirements of § .0106(f) while the third does not. The impact of that cross reference is unclear. If § .0106(f) applies to all unauthorized releases why is it cross-referenced in corrective action requirements specific to § .0106(c) & (e) but not § .0106(d)? Does revised § .0106(d) (applicable to facilities issued certain permits after Dec. 30, 1983) impose less obligation to comply with § .0106(f) or *any* obligation to address sources of contamination? The proposed revision is inconsistent, unclear, a detriment to the health of North Carolinians and the environment, and should be rejected.

## **2) The Proposed Revision to § .0106(e) Ignores Applicable Review Boundaries**

All facilities with permits issued under the authority of N.C. Gen. Stat. § 143-215.1 and Chapter 130A have compliance boundaries. *See* 15A N.C. Admin. Code 2L .0102(3); .0107. All disposal systems with compliance boundaries also have review boundaries. 15A N.C. Admin. Code 2L .0108. The review boundary is located midway between the waste boundary and compliance boundary. *Id.* “When the concentration of any substance equals or exceeds the standard at the review boundary as determined by monitoring” certain requirements are triggered. *Id.* Those requirements make sense because they force entities to analyze the migration of contaminated groundwater at a half way point, and take precautions to ensure contaminated groundwater does not cross a facility’s compliance or property boundary (which triggers additional requirements). This, in turn, helps prevent contaminated groundwater from negatively impacting the property values and drinking water resources of adjacent landowners and facilitates advanced action to prevent problems before they start.

But the proposed revision to § .0106(e) inexplicably ignores review boundary requirements while retaining compliance boundary requirements. To be consistent with the requirements of §§ .0107 & .0108, revised § .0106(e) must be rewritten similarly to revised § .0106(d) which specifies certain actions to be taken when contamination reaches the review boundary. Instead, the proposed revision could be read to weaken important protections for innocent neighboring landowners by obscuring the requirement to begin assessing the movement of groundwater contamination before that contamination has spread to a neighbor’s property or across a compliance boundary.

We note that the General Assembly specifically directed the Commission to address the 2L Rules as they applied to “compliance boundaries.” *See* Session Law 2014-122, § 12(c). Presumably the General Assembly was aware of the application of review boundaries to all permitted facilities but chose not to direct the Commission to revise those requirements, underscoring the necessity of including review boundary requirements for all facilities with permits and compliance boundaries. Given the legislature’s specific instruction, the Commission is without authority to eliminate review boundaries at these facilities

### 3) The Proposed Revisions to §§ .0106(c) & (e) Make Dealing with Sources of Contamination Less Clear

The proposed revisions to §§ .0106(c) & (e) make dealing with sources of contamination less clear in two primary ways. First, the revisions eliminate the requirement to “immediately” address the source of contamination but limit “corrective action plans” to only “restoration of groundwater quality.” Second, the revisions illogically apply the same requirements for dealing with a source of contamination when an individual causes “an increase in the concentration of a substance in excess of the standard” and when there is an “unauthorized release” of a contaminant.

Corrective action plans can include “plan[s] for eliminating sources of groundwater contamination *or* for achieving groundwater quality restoration *or* both.” 15A N.C. Admin. Code 2L .0102(5)(emphasis added). Prior to these proposed revisions, non-permitted and deemed non-permitted facilities implemented a two-step approach to address contamination: immediately “eliminate” the source of groundwater contamination pursuant to § .0106(c)(2) first, and then “implement an approved corrective action plan for restoration of groundwater quality” under § .0106(c)(4). In contrast permitted facilities under § .0106(d) addressed both groundwater restoration and the source of contamination under one corrective action plan.

The proposed revisions upset this balance by continuing to limit corrective action plans to “restoration of groundwater quality” under revised §§ .0106(c) & (e), but replacing the clear requirement to address the source of contamination with a cross reference to revised § .0106(f).<sup>4</sup> It is unclear if the EMC intends the cross reference to § .0106(f) to act as a wholesale substitute for prior requirements to address sources of contamination at these facilities. If that is the intent, it is unclear if this change can produce that result because the events that trigger action under revised §§ .0106(c) & (e) and revised § .0106(f) are different. Sections (c) and (e) are triggered when there is an increase in the concentration of a substance in excess of the groundwater standard, while section (f) is triggered when there is an “unauthorized release of a contaminant to the surface or subsurface of the land.” The obligations of an entity which causes an increase in the concentration of a substance in excess of the groundwater standard but which is not caused by an “unauthorized release” are unclear. In other words, does a facility causing groundwater standard violations have no obligation to address a source of contamination under §§ .0106(c) & (e) unless the release is deemed to be unauthorized pursuant to § .0106(f)? If the Commission intends to keep the cross reference to § .0106(f) in §§ .0106(c) & (e), it should at least revise it to read: “comply with subsections 1-4 of Paragraph (f) of this Rule.”

But it is unclear if even that proposed edit is logical. If revised, the rule will include the same requirements under §§ .0106(c) & (e) for dealing with a source of contamination when an entity causes “an increase in the concentration of a substance in excess of the standard” and

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<sup>4</sup> The obligation for corrective action plans to address both the source of contamination and restoration of groundwater under § .0106(d) remains essentially the same.

when there is an “unauthorized release of a contaminant to the *surface or subsurface* of the land.” *Compare* revised §§ .0106(c)/(e) *with* .0106(f) (emphasis added). These same requirements could be triggered by different events of varying severity. Logically, an exceedance of the groundwater standard under §§ .0106(c) & (e) requires a more robust response to address the source of contamination than an unauthorized release to the surface of the land under § .0106(f) which may or may not cause an exceedance of the groundwater standard.

This is further complicated by the fact that the 2L Rule defines “contaminant” as “any substance occurring in groundwater in concentrations *which exceed the groundwater quality standards.*” 15A N.C. Admin. Code 2L .0102(4). If a substance exceeding the groundwater quality standard is subsequently released to the surface of the land without authorization, are the requirements for dealing with the source of the underground contamination and the source of the surface spill the same? The 2L Rule was clearer before these proposed revisions, with specific requirements for dealing with sources of contamination based on different triggering events. To better protect North Carolina’s groundwater the existing requirements should be left intact. Non-permitted and older, permitted facilities should continue having to take “immediate action to eliminate” sources of contamination when those sources cause groundwater standard exceedances and separate requirements should continue to apply when there is only an “unauthorized discharges to the surface or subsurface of the land.”

#### **4) The Proposed Revisions to § .0106(f) Fail to Clarify Existing Problems with the Rule**

Given the emphasis on § .0106(f) in the revised rule, the Commission must define certain critical, but currently vague, terms. First, the triggering event under § .0106(f), an “unauthorized release” must be defined. The Commission should revise the rule to explicitly define an “unauthorized release” to include (1) releases that cause violations of groundwater standards, (2) any release from an unpermitted facility, and (3) releases that do not comply with the terms and conditions of a valid permit. Clarifying what constitutes an “unauthorized release” will allow DENR and the regulated community to better assess when, or if, a violation may be occurring.

Second, the proposed revisions replace the clarity of requiring “immediate action to eliminate” sources of contamination under the existing rule with a requirement to generally “remove” or “treat” or “control” sources of contamination. *See* § .0106(f)(revised). But these terms are vague and undefined. The Commission must define the terms “remove,” “treat,” and “control” and explain how they are different from “eliminat[ing]” sources of contamination. Defining these terms as anything less than “preventing a source of contamination from remaining a source of contamination whether by removal or other means” will significantly weaken the rule.

#### **5) The Proposed Revisions to §§ .0106(k), (l), and (m) Weaken the Obligation to Restore Degraded Groundwater Quality at Facilities Which Received Permits Prior to December 30, 1983.**

Under the existing rule all facilities must implement the “best available technology” to restore groundwater pursuant to a corrective action plan except for “non-permitted sites.” See §§ .0106(j)-(m). And this exception to allow truly non-permitted facilities to take advantage of relaxed restoration requirements makes sense. Facilities with permits are allowed (with some exceptions) to contaminate groundwater within a compliance boundary. In exchange, these facilities must remediate groundwater quality to meet groundwater standards once contamination passes the compliance boundary. Non-permitted facilities do not enjoy the benefit of a compliance boundary (see §§ .0102(3); .0107); these facilities are prohibited from causing exceedances of the groundwater standards anywhere. When non-permitted facilities cause any exceedance of a groundwater standard they must immediately eliminate the source of contamination per § .0106(c)(2) but are then given relaxed requirements for remediating contaminated groundwater.

The proposed revisions turn these requirements on their head by allowing facilities with certain permits issued prior to Dec. 30, 1983 to take advantage of the relaxed remediation requirements. Before these revisions, relaxed remediation requirements were limited to truly “non-permitted sites.” See §§ .0106(k), (l), and (m). Sites “deemed not permitted” that had actual permits were excluded. Throughout the rule, the Commission previously incorporated facilities into different subsections of the rule by reference to specific paragraphs. *E.g.*, § .0106(j)(“A corrective action plan prepared pursuant to Paragraph (c) or (d) of this Rule”); § .0106(g)(“The site assessment conducted pursuant to the requirements of Paragraph (c) of this Rule”). The lone exception was the applicability of relaxed remediation requirements which was explicitly limited to truly “non-permitted sites.” This difference cannot be overstated: no permitted facilities were allowed the benefit of relaxed restoration.

Now the EMC proposes deleting the reference to “non-permitted sites” in the sections dealing with relaxed restoration standards and replacing it with references to “Paragraph (c) or (e).” See revised §§ .0106(k), (l), and (m). If this revision is approved, facilities with a “permit initially issued by the Department prior to Dec. 30, 1983” under paragraph (e) may, for the first time, be able to take advantage of relaxed groundwater restoration standards and leave more contamination in place. These pre-Dec. 30, 1983 permitted facilities will then have the benefit of the largest compliance boundaries allowed under the Rule (see § .0107(a)) and lax groundwater restoration requirements. The revision is nothing less than a bailout that protects older, contaminating facilities at the expense of the health of the public and the state’s natural resources. Coincidentally or not, all of the Duke Energy facilities which have massive coal ash lagoons the subject of the declaratory ruling action that is the genesis of this rule revision fall into this pre-Dec. 30, 1983 category.

### Conclusion

In sum, the proposed revision is worse than the current rule: it weakens protections for North Carolina’s groundwater, it makes the 2L Rule *less* clear, it creates *new* internal

inconsistencies, and it creates *new* conflicts with governing statutory provisions. The revisions must be rejected. We ask the EMC to reject the current revisions in their entirety and begin again with a revision of these corrective action requirements, in light of the EMC's statutory mandate and the overall purpose and structure of the Groundwater Rule.

Sincerely,

A handwritten signature in black ink, appearing to read "Austin DJ Gerken". The signature is fluid and cursive, with a prominent initial "A" and "G".

Austin DJ Gerken

**From:** [McIntire, Mark](#)  
**To:** [Kane, Evan](#)  
**Subject:** Comments on 2L Rule  
**Date:** Friday, September 11, 2015 2:15:31 PM  
**Attachments:** [image001.png](#)

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Good morning Evan. Thanks again for considering our comments on the modifications to the 2L rule. As noted on Wednesday, we continue to be concerned with the language, particularly as it pertains to implementing the provisions of G.S. 143-215.1(k), as amended by section 12(a) of CAMA. The amended portion directs the EMC to “require the permittee to undertake corrective action, without regard to the date that the system was first permitted...” Instead, the proposed amended version of the corrective action provisions of Section .0106 of the 2L rules continues to differentiate between facilities with permits initially issued on or after December 30, 1983, versus those that were first issued prior to that date. Specifically, subsection (d) is written to cover the newer facilities first permitted on or after December 30, 1983, whereas subsection (e) covers the older facilities that were permitted prior to that date. It seems that the provisions of subsection (e) should be rewritten to make it substantially similar to the provisions of subsection (d). In addition to the revision to Subsection (e), subsection (f) should be modified to make clear that DWR has the discretion as to which, if any, initial response is required and in what order.

Below is alternative language for your consideration...

(e) Any person conducting or controlling an activity which is conducted under the authority of a permit initially issued by the Department prior to December 30, 1983 pursuant to G.S. 35 143-215.1 or G.S. 130A-294 and which results in an increase in concentration of a substance in excess of the standards at or beyond a compliance boundary, shall assess the cause, significance and extent of the violation of standards and submit the results of the investigation, and a plan and proposed schedule for corrective action to the Secretary. The permittee shall implement the plan as approved by and in accordance with a schedule established by the Secretary. In establishing a schedule the Secretary shall consider any reasonable schedule proposed by the permittee.

Thanks for your consideration,  
Mark

**Mark McIntire, PE, BCEE, CRM**

Environmental Policy & Affairs Director

Duke Energy Corporation | 410 S. Wilmington Street | NCRH 10 | Raleigh, NC 27601

O: 919-546-6338 | C: 919-302-2448 | [mark.mcintire@duke-energy.com](mailto:mark.mcintire@duke-energy.com)



## CHAPTER VI: Attachments

### Regulatory Impact Analysis

The following fiscal analysis was submitted to the Office of State Budget and Management on April 9, 2015. On April 29, 2015, OSBM notified DWR and the Office of Administrative Hearings of its determination that the rule change has little to no impact on state or local governments and no substantial economic impact and that therefore, a fiscal note is not required.

### Fiscal Analysis

**Rule Citation Number:** 15A NCAC 2L .0106

**Rule Topic:** Revision of Rule 15A NCAC 2L .0106 - Groundwater Corrective Action

**DENR Division:** Division of Water Resources

**Staff Contact:** Jucilene Hoffmann: Economist II, Division of Water Resources (DWR)  
[Jucilene.hoffmann@ncdenr.gov](mailto:Jucilene.hoffmann@ncdenr.gov)  
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Evan O. Kane, P.G., Groundwater Planning Supervisor (DWR)  
[evan.kane@ncdenr.gov](mailto:evan.kane@ncdenr.gov)  
 (919) 807-6461

**Impact Summary:**

State government:	No
Local government:	No
Private entities:	No
Substantial Impact:	No
Federal government:	No

**Necessity:** Session Law 2014-122 (the Coal Ash Management Act of 2014) directed the Environmental Management Commission (EMC) to review its compliance boundary and corrective action rules in 15A NCAC 2L for clarity and consistency, and to report the results of its review to the Environmental Review Commission (ERC) by December 1, 2014. In its review, the Environmental Management Commission identified five clarity or consistency issues in Rule 15A NCAC 2L .0106 that require that rule to be revised: (1)The use of the terminology “non-permitted” in 15A NCAC 2L .0106 to refer to some activities that in fact have permits; (2)Disagreement between the EMC and a recent court ruling over the interpretation of “immediate action to eliminate the source or sources of contamination,” and the relevance of 15A NCAC 2L .0106(f) to such action; (3)whether, in the context of the corrective action rule, a compliance boundary is applicable to facilities that are truly permitted, but are considered “non-permitted” under 15A NCAC 2L .0106(e); (4)the omission of permits issued under Chapter 130A of North Carolina General Statutes from the definition of “permitted” activities under the corrective action rule (15A NCAC 2L .0106), even though such permits are given compliance boundaries under the compliance boundary rule (15A NCAC 2L .0107); and (5)various technical

corrections and updates to reflect the current organizational structure of the Department of Environment and Natural Resources (DENR).

## 1. Summary

In accordance with Session Law 2014-122, the Environmental Management Commission (EMC) has conducted a review of its rules in 15A NCAC 2L for corrective action and compliance boundaries. Revised rule's text is suggested in this report to clarify issues of the corrective action rule (15A NCAC 2L .0106).

The fastest options for clarifying these issues are either legislative clarifications or temporary rulemaking. However, there is a risk of unintended consequences if sweeping changes to the rules are undertaken without stakeholder involvement in a permanent rulemaking process. For this reason, it is recommended that the most pressing clarity issues identified in this report be addressed through permanent rulemaking by the EMC, unless the General Assembly directs the EMC to undertake temporary rulemaking. The EMC has directed staff in the Department of Environment and Natural Resources to present proposed rule revision language for permanent rulemaking at the EMC's meeting.

Due to the fact that the current proposal is a matter of rule text revision and not a composition of new rule, there are no quantifiable impacts of the proposed rulemaking according to this fiscal analysis. The earliest expected effective date of the revised rule is January 1, 2016.

## 2. Background

The rule proposed for revision, Rule 15A NCAC 2L .0106, establishes requirements for corrective action to control and restore groundwater that has become contaminated by any discharge, spilling, or other release of contamination. The impetus for revising this rule is linked closely to two related rules, 15A NCAC 2L .0107 and 15A NCAC 2L .0108, so it is necessary to provide a summary of those rules first.

Rule 15A NCAC 2L .0107 establishes a boundary around permitted disposal systems at and beyond which groundwater quality standards may not be exceeded. This compliance boundary only applies to facilities which have received a permit issued under the authority of G.S. 143-215.1 (e.g., wastewater and wastewater treatment residuals disposal sites) or G.S. 130A (e.g., septic systems and solid waste disposal sites). Depending on the date the facility was permitted, two categories of compliance boundary are established by 15A NCAC 2L .0107:

- For disposal systems individually permitted prior to December 30, 1983, the compliance boundary is established at a horizontal distance of 500 feet from the waste boundary or at the property boundary, whichever is closer to the source.
- For disposal systems individually permitted on or after December 30, 1983, a compliance boundary is established 250 feet from the waste boundary, or 50 feet within the property boundary, whichever point is closer to the source.

The purpose of the different compliance boundary distances is to allow older facilities, which may not have been engineered or constructed to modern standards, more leeway in managing

the impacts of their waste disposal practices, while still prohibiting contamination from migrating offsite.

Rule 15A NCAC 2L .0108 establishes a review boundary halfway between the waste boundary and the compliance boundary. The purpose of the review boundary is to serve as a sort of early warning monitoring point to prompt permitted facilities to take action before contamination reaches the compliance boundary.

The current corrective action rule, Rule 15A NCAC 2L .0106, makes a distinction between “permitted” and “non-permitted” activities, establishing different requirements for corrective action that persons engaged in permitted and non-permitted activities must undertake. Paragraph (e) of the corrective action rule specifies that “an activity conducted under the authority of a permit,” and subject to being treated as permitted for the purposes of corrective action, is one for which:

- a permit has been issued pursuant to G.S. 143-215.1;
- the permit was originally issued after December 30, 1983; and
- the substance for which a standard has been exceeded outside the compliance boundary has been released to groundwater as a result of the permitted activity.

“Permitted” activities by these criteria include wastewater treatment and disposal systems, such as systems that irrigate using wastewater, areas where residuals from wastewater treatment are applied to the land as fertilizer, and lagoons used as settling basins, to name a few. Such systems are used by both municipalities and private industry.

Activities not meeting the above criteria are considered to be “non-permitted” for the purposes of 15A NCAC 2L .0106(c) and 15A NCAC 2L .0106(d). This means that some facilities or persons holding active permits from DENR are considered “non-permitted” for the purposes of the corrective action rule, if their permits were issued prior to December 30, 1983 or were issued under statutes other than G.S. 143-215.1. These activities could include older wastewater treatment or disposal systems or other waste management activities, such as landfills, and may be operated by municipalities or private industry.

Paragraph (c) of the current corrective action rule requires persons conducting or controlling activities that are deemed “non-permitted,” upon finding that their activities have contaminated groundwater at levels above the groundwater standards, to:

- immediately notify the Division of the activity that has resulted in the increase and the contaminant concentration levels;
- take immediate action to eliminate the source or sources of contamination;
- submit a report to the Director assessing the cause, significance and extent of the violation; and
- implement an approved corrective action plan for restoration of groundwater quality.

On the other hand, Paragraph (d) of the current corrective action rule requires persons engaged in activities that are deemed “permitted” to implement corrective actions only when groundwater standards are exceeded at a review boundary or compliance boundary. If the groundwater standards exceedance occurs at a review boundary, the permittee must

demonstrate that natural site conditions, facility design and operational controls will prevent a violation of standards at the compliance boundary; or they must implement a plan for alteration of existing site conditions, facility design or operational controls to prevent a violation at the compliance boundary. Such actions could include reducing the amount of waste applied to the land. When a permitted activity causes an exceedance of groundwater standards at the compliance boundary, the permittee must assess the cause, significance and extent of the violation of standards at and beyond the compliance boundary and submit the results of the investigation and a plan and proposed schedule for corrective action.

Historically, DENR and the EMC have interpreted the requirement in Paragraph (c) of the corrective action rule to take “immediate action to eliminate the source or sources of contamination” as requiring responsible parties and DENR to follow detailed procedures prescribed in the entirety of 15A NCAC 2L. The specific corrective actions required to be undertaken prior to or concurrent with assessment activities are spelled out in 15A NCAC 2L .0106(f), which addresses actions requiring immediate action, such as prevention of fire, explosion, or the spread of noxious fumes, as well as those actions which may require a longer duration to undertake, or which may require assessment prior to action, such as removal, treatment, or control of primary and secondary sources of pollution. However, a 2014 ruling in the Wake County Superior Court determined that the EMC had erred in interpreting 15A NCAC 2L .0106(f) to provide clarification of the “immediate action” required by 15A NCAC 2L .0106(c).

In addition, the criteria used in Paragraph 15A NCAC 2L .0106(e) to distinguish “permitted” activities from “non-permitted” activities makes navigation of the rule difficult and confuses the applicability of other portions of the rule by calling some permitted facilities “non-permitted” for some purposes of 15A NCAC 2L .0106, while they remain “permitted” for purposes of other rules in 15A NCAC 2L.

With regard to the compliance boundary rule, it has been argued, in a request for declaratory ruling before the EMC and in a subsequent judicial review of that declaratory ruling, that compliance boundaries are only relevant for facilities or activities that are considered “permitted” in the context of 15A NCAC 2L .0106, and that compliance boundaries are not applicable to the corrective action requirements for facilities permitted prior to December 30, 1983. However, rule 15A NCAC 2L .0107 clearly establishes a compliance boundary around these older permitted facilities. In 2013, the General Assembly clarified this fact in the S.L. 2013-413 by limiting the EMC’s authority to require corrective action within the compliance boundary to particular circumstances. However, this limitation on the EMC’s corrective action authority was repealed by S.L. 2014-122.

The corrective action rule and compliance boundary rule have a potential conflict with regard to their respective applicability to permits issued by DENR. Both rules differentiate between permits issued before and after December 30, 1983. However, the compliance boundary rule establishes compliance boundaries around permits issued under G.S. 143-215.1 and those issued under G.S. Chapter 130A, while the corrective action rule includes only permits issued under G.S. 143-215.1 in its definition of “permitted” activities. The reason for this omission is not immediately clear and warrants further investigation.

In addition to the substantial issues, the rules throughout 15A NCAC 2L do not reflect the current organizational structure of the Department of Environment and Natural Resources. For example, the rules still refer to the Division of Environmental Management and its Director, though this division was eliminated, and its responsibilities distributed to various other divisions of DENR, in 1997.

In summary, the Environmental Management Commission is pursuing this rulemaking in order to address the following clarity issues:

- Use of the terminology “non-permitted” in 15A NCAC 2L .0106 to refer to some activities that in fact have permits;
- Disagreement between the EMC and a recent court ruling over the interpretation of “immediate action to eliminate the source or sources of contamination,” and the relevance of 15A NCAC 2L .0106(f) to such action;
- Whether, in the context of the corrective action rule, a compliance boundary is applicable to facilities that are truly permitted, but are considered “non-permitted” under 15A NCAC 2L .0106(e)
- The omission of permits issued under Chapter 130A of North Carolina General Statutes from the definition of “permitted” activities under the corrective action rule (15A NCAC 2L .0106), even though such permits are given compliance boundaries under the compliance boundary rule (15A NCAC 2L .0107); and
- Various technical corrections and updates to reflect the current organizational structure of DENR.

Four options for modifying the corrective action rule were considered by the EMC:

- Rule revisions by legislative action;
- Temporary rulemaking;
- Permanent rulemaking initiated by the EMC; or
- Permanent rulemaking under the rules review requirements of House Bill 74

Permanent rulemaking would allow for the most comprehensive solution to issues of clarity and consistency identified in this report. In addition, permanent rulemaking, by its requirements for public comment, would help identify and prevent unintended consequences of rule revisions adopted by the EMC. The permanent rulemaking process would take approximately two years to complete.

### 3. Costs

#### (i.) Development Community and Local Governments

The proposed revision of Rule 15A NCAC 2L .0106 for corrective action will not require members of the development community or local government to deviate from current practices; as such, there will be neither a direct cost nor opportunity cost associated with new development, existing development, or redevelopment activities as a result of this proposed rules revision.

#### (ii.) Implementing Agencies

These amendments will not require the Division of Water Resources (DWR) or the Division of Waste Management at DENR to revise its existing procedures nor will they require recruiting additional staff. Therefore, this proposed rulemaking will have no economic impact to the implementing agency.

- (iii.) Environment/Ecosystem  
This current rule revision is intended to clarify existing rule language for the interested parties. It will not change the timeliness or extent of groundwater cleanups compared to current implementation of the existing rule. No new adverse environmental impacts or new environmental benefits are anticipated to result from the revised rule.

#### **4. Benefits**

- (i.) Development Community and Local Governments  
A better defined rule will aid any project manager in selecting appropriate cases for institutional controls and establishing enforceable mechanisms to ensure the reliability of such controls. In consequence, the effectiveness of these actions helps protect human health and the environment, meet the cleanup objectives and comply with laws and regulations. Those benefits would accrue to the remediating party, to those redeveloping or reusing the impacted properties, and to the economies of communities where the sites are located.
- (iv.) Implementing Agencies  
There are several issues in Rule 15A NCAC 2L .0106 that need clarification and consistency as outlined in the summary and background above. The revision of this rule would affect the NCDENR procedures positively due to the fact that a more straightforward and concise rule would make the comprehension of it more consistent across the state.
- (v.) Environment/Ecosystem  
This current rule revision is intended to clarify existing rule language for the interested parties. It will not change the timeliness or extent of groundwater cleanups compared to current implementation of the existing rule. No new adverse environmental impacts or new environmental benefits are anticipated to result from the revised rule.

#### **5. Total Economic Impact**

The economic impacts of the proposed amendments, both in terms of cost and benefit, are not monetarily quantifiable as measured from the baseline conditions.

Consequently, there were no specific cost or benefit estimations to report in this fiscal analysis.

Review of the EMC’s Corrective Action and Compliance Boundary Rules for Clarity and Consistency Report, November 19, 2014.

November 19, 2014

**MEMORANDUM**

**TO:** THE ENVIRONMENTAL REVIEW COMMISSION  
The Honorable Mike Hager, Co-Chair  
The Honorable Ruth Samuelson, Co-Chair  
The Honorable Brent Jackson, Co-Chair

**FROM:** Neal Robbins, Director of Legislative Affairs

**SUBJECT:** Review of the Environmental Management Commission's Corrective Action and Compliance Boundary Rules for Clarity and Consistency Report

**DATE:** November 19, 2014

Pursuant to S.L. 2014-122, the Environmental Management Commission has conducted a review of its rules in 15A NCAC 2L for corrective action and compliance boundaries. Please consider the attached as the formal submission this report on behalf of the EMC.

If you have any questions or need additional information, please contact me by phone at (919) 707-8618 or via e-mail at [neal.robbs@ncdenr.gov](mailto:neal.robbs@ncdenr.gov).

**cc:** Mitch Gillespie, Assistant Secretary for Environment, NCDENR  
Kevin Martin, Acting Chair of the Environmental Management Commission  
Tom Reeder, Director of Water Resources, NCDENR  
Linda Culpepper, Director of Waste Management, NCDENR

# Review of the Environmental Management Commission's Corrective Action and Compliance Boundary Rules for Clarity and Consistency

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*Report of the Environmental Management Commission to the Environmental Review Commission under Part VII of S.L. 2014-122*

*November 13, 2014*

## **Executive Summary**

In accordance with Session Law 2014-122, the Environmental Management Commission has conducted a review of its rules in 15A NCAC 2L for corrective action and compliance boundaries. From this review, the EMC has concluded that there are several issues in these rules that need clarification:

- Use of the terminology “non-permitted” in 15A NCAC 2L .0106 to refer to some activities that in fact have permits;
- Disagreement between the EMC and a recent court ruling over the interpretation of “immediate action to eliminate the source or sources of contamination;”
- Whether, in the context of the corrective action rule, a compliance boundary is applicable to facilities that are truly permitted, but are considered “non-permitted” under 15A NCAC 2L .0106(e)
- The omission of permits issued under Chapter 130A of North Carolina General Statutes from the definition of “permitted” activities under the corrective action rule (15A NCAC 2L .0106), even though such permits are given compliance boundaries under the compliance boundary rule (15A NCAC 2L .0107); and
- Various technical corrections and updates to reflect the current organizational structure of DENR.

Revised rule text is suggested in this report to clarify these issues in the corrective action rule (15A NCAC 2L .0106).

The fastest options for clarifying these issues are either legislative clarifications or temporary rulemaking. However, there is a risk of unintended consequences if sweeping changes to the rules are undertaken without stakeholder involvement in a permanent rulemaking process. For this reason, it is recommended that the most pressing clarity issues identified in this report be addressed through permanent rulemaking by the EMC, unless the General Assembly directs the EMC to undertake temporary rulemaking. The EMC has directed staff in the Department of Environment and Natural Resources to present proposed rule revision language for permanent rulemaking at the EMC's January meeting.

## Introduction

Session Law 2014-122 (the Coal Ash Management Act of 2014) directed the Environmental Management Commission (EMC) to review its compliance boundary and corrective action rules in 15A NCAC 2L for clarity and consistency, and to report the results of its review to the Environmental Review Commission (ERC) by December 1, 2014.

The chair of the EMC appointed five EMC members to an *ad hoc* committee to conduct this review and make recommendations to the EMC to report to the ERC. The committee met with staff in the Department of Environment and Natural Resources and has prepared this report to summarize the committee's findings and recommendations to the EMC.

## Background

### Compliance Boundary Rule

Rule 15A NCAC 2L .0107 establishes a boundary around permitted disposal systems at and beyond which groundwater quality standards may not be exceeded. This compliance boundary only applies to facilities which have received a permit issued under the authority of G.S. 143-215.1 (e.g., wastewater and wastewater treatment residuals disposal sites) or G.S. 130A (e.g., septic systems and solid waste disposal sites). Depending on the date the facility was permitted, two categories of compliance boundary are established by 15A NCAC 2L .0107:

- For disposal systems individually permitted prior to December 30, 1983, the compliance boundary is established at a horizontal distance of 500 feet from the waste boundary or at the property boundary, whichever is closer to the source.
- For disposal systems individually permitted on or after December 30, 1983, a compliance boundary is established 250 feet from the waste boundary, or 50 feet within the property boundary, whichever point is closer to the source.

The purpose of the different compliance boundary distances is to allow older facilities, which may not have been engineered or constructed to modern standards, more leeway in managing the impacts of their waste disposal practices, while still prohibiting contamination from migrating offsite.

Rule 15A NCAC 2L .0108 establishes a review boundary halfway between the waste boundary and the compliance boundary. The purpose of the review boundary is to serve as a sort of early warning monitoring point to prompt permitted facilities to take action before contamination reaches the compliance boundary.

### Corrective Action Rule

Rule 15A NCAC 2L .0106 establishes requirements for corrective action for activities that result in groundwater contamination at levels in excess of the groundwater standards.

The corrective action rule makes a distinction between “permitted” and “non-permitted” activities, establishing different requirements for corrective action that persons engaged in permitted and non-

permitted activities must undertake. Paragraph (e) of the corrective action rule specifies that “an activity conducted under the authority of a permit,” and subject to being treated as permitted for the purposes of corrective action, is one for which:

- a permit has been issued pursuant to G.S. 143-215.1;
- the permit was originally issued after December 30, 1983; and
- the substance for which a standard has been exceeded outside the compliance boundary has been released to groundwater as a result of the permitted activity.

Facilities or persons not meeting the above criteria are considered to be “non-permitted” for the purposes of 15A NCAC 2L .0106(c) and 15A NCAC 2L .0106(d). This means that some facilities or persons holding active permits from DENR are considered “non-permitted” for the purposes of the corrective action rule, if their permits were issued prior to December 30, 1983 or were issued under statutes other than G.S. 143-215.1.

Paragraph (c) of the corrective action rule requires persons conducting or controlling activities that are deemed “non-permitted,” upon finding that their activities have contaminated groundwater at levels above the groundwater standards, to:

- immediately notify the Division of the activity that has resulted in the increase and the contaminant concentration levels;
- take immediate action to eliminate the source or sources of contamination;
- submit a report to the Director assessing the cause, significance and extent of the violation; and
- implement an approved corrective action plan for restoration of groundwater quality.

On the other hand, Paragraph (d) of the corrective action rule requires persons engaged in activities that are deemed “permitted” to implement corrective actions when groundwater standards are exceeded at a review boundary or compliance boundary. If the groundwater standards exceedance occurs at a review boundary, the permittee must demonstrate that natural site conditions, facility design and operational controls will prevent a violation of standards at the compliance boundary; or they must implement a plan for alteration of existing site conditions, facility design or operational controls to prevent a violation at the compliance boundary. Such actions could include reducing the amount of waste applied to the land. When a permitted activity causes an exceedance of groundwater standards at the compliance boundary, the permittee must assess the cause, significance and extent of the violation of standards at and beyond the compliance boundary and submit the results of the investigation and a plan and proposed schedule for corrective action.

## Discussion

Historically, DENR and the EMC have interpreted the requirement in Paragraph (c) of the corrective action rule to take “immediate action to eliminate the source or sources of contamination” as requiring responsible parties and DENR to follow detailed procedures prescribed in the entirety of 15A NCAC 2L. The specific corrective actions required to be undertaken prior to or concurrent with assessment

activities are spelled out in 15A NCAC 2L .0106(f), which addresses actions requiring immediate action, such as prevention of fire, explosion, or the spread of noxious fumes, as well as those actions which may require a longer duration to undertake, or which may require assessment prior to action, such as removal, treatment, or control of primary and secondary sources of pollution. However, a 2014 ruling in the Wake County Superior Court determined that the EMC had erred in interpreting 15A NCAC 2L .0106(f) to provide clarification of the “immediate action” required by 15A NCAC 2L .0106(c).

In addition, the criteria used in Paragraph 15A NCAC 2L .0106(e) to distinguish “permitted” activities from “non-permitted” activities makes navigation of the rule difficult and confuses the applicability of other portions of the rule by calling some permitted facilities “non-permitted” for some purposes of 15A NCAC 2L .0106, while they remain “permitted” for purposes of other rules in 15A NCAC 2L.

With regard to the compliance boundary rule, it has been argued, in a request for declaratory ruling before the EMC and in a subsequent judicial review of that declaratory ruling, that compliance boundaries are only relevant for facilities or activities that are considered “permitted” in the context of 15A NCAC 2L .0106, and that compliance boundaries are not applicable to the corrective action requirements for facilities permitted prior to December 30, 1983. However, rule 15A NCAC 2L .0107 clearly establishes a compliance boundary around these older permitted facilities. In 2013, the General Assembly clarified this fact in the S.L. 2013-413 by limiting the EMC’s authority to require corrective action within the compliance boundary to particular circumstances. However, this limitation on the EMC’s corrective action authority was repealed by S.L. 2014-122.

The corrective action rule and compliance boundary rule have a potential conflict with regard to their respective applicability to permits issued by DENR. Both rules differentiate between permits issued before and after December 30, 1983. However, the compliance boundary rule establishes compliance boundaries around permits issued under G.S. 143-215.1 and those issued under G.S. Chapter 130A, while the corrective action rule includes only permits issued under G.S. 143-215.1 in its definition of “permitted” activities. The reason for this omission is not immediately clear and warrants further investigation.

In addition to the substantial issues, the rules throughout 15A NCAC 2L do not reflect the current organizational structure of the Department of Environment and Natural Resources. For example, the rules still refer to the Division of Environmental Management and its Director, though this division was eliminated, and its responsibilities distributed to various other divisions of DENR, in 1997.

## Findings

The Compliance Boundary *ad hoc* Committee has identified the following issues as needing clarification in the 15A NCAC 2L rules:

- Use of the terminology “non-permitted” in 15A NCAC 2L .0106 to refer to some activities that in fact have permits;

- Disagreement between the EMC and a recent court ruling over the interpretation of “immediate action to eliminate the source or sources of contamination,” and the relevance of 15A NCAC 2L .0106(f) to such action;
- Whether, in the context of the corrective action rule, a compliance boundary is applicable to facilities that are truly permitted, but are considered “non-permitted” under 15A NCAC 2L .0106(e)
- The omission of permits issued under Chapter 130A of North Carolina General Statutes from the definition of “permitted” activities under the corrective action rule (15A NCAC 2L .0106), even though such permits are given compliance boundaries under the compliance boundary rule (15A NCAC 2L .0107); and
- Various technical corrections and updates to reflect the current organizational structure of DENR.

Suggested text for clarifying these issues is provided in the Appendix.

## Options for Clarifying the Rules

Four options for modifying the corrective action rule have been identified:

- Rule revisions by legislative action;
- Temporary rulemaking;
- Permanent rulemaking initiated by the EMC; or
- Permanent rulemaking under the rules review requirements of House Bill 74

### Rule Revisions by Legislative Action

The General Assembly could, through legislation, set aside any existing rule of the EMC in favor of alternative requirements, or direct the EMC as to the implementation of a rule. This process could be efficient, but could circumvent the involvement of a broad array of stakeholders whose input might be valuable to crafting detailed requirements and avoiding unintended consequences.

### Temporary Rulemaking

The Administrative Procedures Act allows an agency to adopt a temporary rule when it finds that adherence to the notice and hearing requirements of G.S. 150B-21.2 would be contrary to the public interest and that the immediate adoption of the rule is required by any of several criteria in G.S. 150B-21.1(a), including:

- A serious and unforeseen threat to the public health, safety, or welfare.
- The effective date of a recent act of the General Assembly or the United States Congress.
- A recent change in federal or State budgetary policy.
- A recent federal regulation.
- A recent court order.

At present, it does not appear that any of these criteria are met for the rules in question.

When an agency adopts a temporary rule it must submit the rule and the agency's written statement of its findings of the need for the rule to the RRC. The RRC determines whether the statement meets the criteria listed in G.S. 150B-21.1(a) and whether the rule meets the standards in G.S. 150B-21.9. If the RRC disagrees with the agency's determination, the rule does not take effect.

The temporary rulemaking process provides for public comment on the temporary rule, though the public comment period is abbreviated compared to that in permanent rulemaking.

A temporary rule expires within 270 days from the date the adopted temporary rule is published in the North Carolina Register. The rule can expire sooner if the agency adopting the rule specifies an earlier date, or if the RRC or General Assembly take certain actions listed in G.S. 150B-21.1(d).

### **Permanent Rulemaking Initiated by the EMC**

Permanent rulemaking would allow for the most comprehensive solution to issues of clarity and consistency identified in this report. In addition, permanent rulemaking, by its requirements for public comment, would help identify and prevent unintended consequences of rule revisions adopted by the EMC. The permanent rulemaking process would take approximately two years to complete.

### **Permanent Rulemaking Under Rules Review Requirements of H74**

Review of rules under H74 entails an agency determination regarding the necessity of and public interest in the rules, followed by a public comment period to solicit comments on the agency's determination, and review by Rules Review Commission (RRC) of the agency's determination. The agency's determination is scheduled for review by the RRC in February 2018. Following the public comment period and RRC review, any rules determined to be necessary would have to undergo re-adoption, which would allow for revisions to the rules to be considered. If the issues identified in this report were addressed through this process, full resolution of these issues would likely not be completed until at least 2019.

### **Recommendation**

While it is important to correct the issues identified by this review, it is equally important to recognize that the corrective action and compliance boundary rules, and other related rules in 15A NCAC 2L have broad applicability beyond the immediate issues that prompted the passage of S.L. 2014-122. Large changes to the rules could have unintended consequences if those changes are not undertaken with the full involvement of stakeholders. For this reason, it is recommended that the most pressing clarity issues identified in this report be addressed through permanent rulemaking by the EMC, unless the General Assembly directs the EMC to undertake temporary rulemaking. The EMC has directed staff in the Department of Environment and Natural Resources to present proposed rule revision language for permanent rulemaking at the EMC's January meeting.

# Appendix – Draft Text of Suggested Revisions to the Corrective Action Rule

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**15A NCAC 02L .0106 CORRECTIVE ACTION**

(a) Where groundwater quality has been degraded, the goal of any required corrective action shall be restoration to the level of the standards, or as closely thereto as is economically and technologically feasible. In all cases involving requests to the ~~Director~~ Secretary, as defined in 15A NCAC 2C .0102, for approval of corrective action plans, or termination of corrective action, the responsibility for providing all information required by this Rule lies with the person(s) making the request.

(b) Any person conducting or controlling an activity which results in the discharge of a waste or hazardous substance or oil to the groundwaters of the State, or in proximity thereto, shall take immediate action to terminate and control the discharge, mitigate any hazards resulting from exposure to the pollutants and notify the ~~Division~~ Department, as defined in 15A NCAC 2C .0102, of the discharge.

(c) Any person conducting or controlling an activity which has not been permitted by the ~~Division~~ Department and which results in an increase in the concentration of a substance in excess of the standard, other than agricultural operations, shall:

- (1) immediately within 24 hours of discovery of the violation, notify the ~~Division~~ Department of the activity that has resulted in the increase and the contaminant concentration levels;
- ~~(2) take immediate action to eliminate the source or sources of contamination;~~
- (2) respond in accordance with Paragraph (f) of this Rule;
- (3) submit a report to the ~~Director~~ Secretary assessing the cause, significance and extent of the violation; and
- (4) implement an approved corrective action plan in accordance with a schedule established by the Secretary for restoration of groundwater ~~quality~~ quality:
  - (i) at or beyond a compliance boundary set forth in a permit issued pursuant to G.S. 143-215.1 or G.S. 130A-294; or
  - (ii) if no compliance boundary has been established pursuant to permit, within the area impacted by the increase in the concentration in excess of the standard.

In establishing a schedule the ~~Director, or his designee~~ Secretary shall consider any reasonable schedule proposed by the person submitting the plan. A report shall be made to the Health Director of the county or counties in which the contamination occurs in accordance with the requirements of Rule .0114(a) in this Section.

(d) Any person conducting or controlling an activity which is conducted under the authority of a permit issued by the ~~Division~~ Department and which results in an increase in concentration of a substance in excess of the standards:

- (1) at or beyond a review boundary, shall demonstrate, through predictive calculations or modeling, that natural site conditions, facility design and operational controls will prevent a violation of standards at the compliance boundary; or submit a plan for alteration of existing site conditions, facility design or operational controls that will prevent a violation at the compliance boundary, and implement that plan upon its approval by the ~~Director, or his designee~~ Secretary.
- (2) at or beyond a compliance boundary, shall assess the cause, significance and extent of the violation of standards and submit the results of the investigation, and a plan and proposed schedule for corrective action to the ~~Director, or his designee~~ Secretary. The permittee shall implement the plan as approved by and in accordance with a schedule established by the ~~Director, or his designee~~ Secretary. In establishing a

schedule the ~~Director, or his designee~~ Secretary shall consider any reasonable schedule proposed by the permittee.

(e) For the purposes of Paragraphs (c) and (d) of this Rule, an activity conducted under the authority of a permit issued by the ~~Division~~ Department, and subject to Paragraph (d) of this Rule, is one for which:

- (1) a permit has been issued pursuant to ~~G.S. 143-215.1;~~ G.S. 143-215.1 or G.S. 130A-294;
- (2) the permit was originally issued after December 30, 1983;
- (3) the substance for which a standard has been exceeded outside the compliance boundary has been released to groundwater as a result of the permitted activity;
- (4) ~~all other activities shall for the purpose of this Rule be deemed not permitted by the Division and subject to the provisions of Paragraph (c) of this Rule.~~

All other activities shall for the purpose of this Rule be deemed not permitted by the Division Department and subject to the provisions of Paragraph (c) of this Rule.

(f) ~~Corrective action~~ Initial response required following discovery of the unauthorized release of a contaminant to the surface or subsurface of the land, and prior to or concurrent with the assessment required in Paragraphs (c) and (d) of this Rule, shall include, but is not limited to:

- (1) Prevention of fire, explosion or the spread of noxious fumes;
- (2) Abatement, containment or control of the migration of contaminants;
- (3) Removal, or ~~treatment~~ treatment, or ~~and~~ control of any primary pollution source such as buried waste, waste stockpiles or surficial accumulations of free products;
- (4) Removal, ~~treatment~~ or treatment, or control of secondary pollution sources which would be potential continuing sources of pollutants to the groundwaters such as contaminated soils and non-aqueous phase liquids. Contaminated soils which threaten the quality of groundwaters must be treated, contained or disposed of in accordance with applicable rules. The treatment or disposal of contaminated soils shall be conducted in a manner that will not result in a violation of standards or North Carolina Hazardous Waste Management rules.

(g) The site assessment conducted pursuant to the requirements of Paragraph (c) of this Rule, shall include:

- (1) The source and cause of contamination;
- (2) Any imminent hazards to public health and safety and actions taken to mitigate them in accordance with Paragraph (f) of this Rule;
- (3) All receptors and significant exposure pathways;
- (4) The horizontal and vertical extent of soil and groundwater contamination and all significant factors affecting contaminant transport; and
- (5) Geological and hydrogeological features influencing the movement, chemical, and physical character of the contaminants.

Reports of site assessments shall be submitted to the ~~Division~~ Department as soon as practicable or in accordance with a schedule established by the ~~Director, or his designee~~ Secretary. In establishing a schedule the ~~Director, or his designee~~ Secretary shall consider any reasonable proposal by the person submitting the report.

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

- (1) A description of the proposed corrective action and reasons for its selection.

- (2) Specific plans, including engineering details where applicable, for restoring groundwater quality.
  - (3) A schedule for the implementation and operation of the proposed plan.
  - (4) A monitoring plan for evaluating the effectiveness of the proposed corrective action and the movement of the contaminant plume.
- (i) In the evaluation of corrective action plans, the ~~Director, or his designee~~ Secretary shall consider the extent of any violations, the extent of any threat to human health or safety, the extent of damage or potential adverse impact to the environment, technology available to accomplish restoration, the potential for degradation of the contaminants in the environment, the time and costs estimated to achieve groundwater quality restoration, and the public and economic benefits to be derived from groundwater quality restoration.
- (j) A corrective action plan prepared pursuant to Paragraph (c) or (d) of this Rule must be implemented using the best available technology for restoration of groundwater quality to the level of the standards, except as provided in Paragraphs (k), (l), (m), (r) and (s) of this Rule.
- (k) Any person required to implement an approved corrective action plan for a non-permitted site pursuant to this Rule may request that the ~~Director~~ Secretary approve such a plan without requiring groundwater remediation to the standards. A request submitted to the ~~Director~~ Secretary under this Paragraph shall include a description of site specific conditions, including information on the availability of public water supplies for the affected area; the technical basis for the request; and any other information requested by the ~~Director~~ Secretary to thoroughly evaluate the request. In addition, the person making the request must demonstrate to the satisfaction of the ~~Director~~:  
Secretary:
- (1) that all sources of contamination and free product have been removed or controlled pursuant to Paragraph (f) of this Rule;
  - (2) that the time and direction of contaminant travel can be predicted with reasonable certainty;
  - (3) that contaminants have not and will not migrate onto adjacent properties, or that:
    - (A) such properties are served by an existing public water supply system dependent on surface waters or hydraulically isolated groundwater, or
    - (B) the owners of such properties have consented in writing to the request;
  - (4) that the standards specified in Rule .0202 of this Subchapter will be met at a location no closer than one year time of travel upgradient of an existing or foreseeable receptor, based on travel time and the natural attenuation capacity of subsurface materials or on a physical barrier to groundwater migration that exists or will be installed by the person making the request;
  - (5) that, if the contaminant plume is expected to intercept surface waters, the groundwater discharge will not possess contaminant concentrations that would result in violations of standards for surface waters contained in 15A NCAC 2B .0200;
  - (6) that public notice of the request has been provided in accordance with Rule .0114(b) of this Section;
  - (7) that the proposed corrective action plan would be consistent with all other environmental laws.
- (l) Any person required to implement an approved corrective action plan for a non-permitted site pursuant to this Rule may request that the ~~Director~~ Secretary approve such a plan based upon natural processes of degradation and attenuation of contaminants. A request submitted to the ~~Director~~ Secretary under this Paragraph shall include a description of site specific conditions, including

written documentation of projected groundwater use in the contaminated area based on current state or local government planning efforts; the technical basis for the request; and any other information requested by the ~~Director~~ Secretary to thoroughly evaluate the request. In addition, the person making the request must demonstrate to the satisfaction of the ~~Director~~ Secretary:

- (1) that all sources of contamination and free product have been removed or controlled pursuant to Paragraph (f) of this Rule;
  - (2) that the contaminant has the capacity to degrade or attenuate under the site-specific conditions;
  - (3) that the time and direction of contaminant travel can be predicted with reasonable certainty;
  - (4) that contaminant migration will not result in any violation of applicable groundwater standards at any existing or foreseeable receptor;
  - (5) that contaminants have not and will not migrate onto adjacent properties, or that:
    - (A) such properties are served by an existing public water supply system dependent on surface waters or hydraulically isolated groundwater, or
    - (B) the owners of such properties have consented in writing to the request;
  - (6) that, if the contaminant plume is expected to intercept surface waters, the groundwater discharge will not possess contaminant concentrations that would result in violations of standards for surface waters contained in 15A NCAC 2B .0200;
  - (7) that the person making the request will put in place a groundwater monitoring program sufficient to track the degradation and attenuation of contaminants and contaminant by-products within and down gradient of the plume and to detect contaminants and contaminant by-products prior to their reaching any existing or foreseeable receptor at least one year's time of travel upgradient of the receptor and no greater than the distance the groundwater at the contaminated site is predicted to travel in five years;
  - (8) that all necessary access agreements needed to monitor groundwater quality pursuant to SubParagraph (7) of this Paragraph have been or can be obtained;
  - (9) that public notice of the request has been provided in accordance with Rule .0114(b) of this Section; and
  - (10) that the proposed corrective action plan would be consistent with all other environmental laws.
- (m) The ~~Division~~ Department or any person required to implement an approved corrective action plan for a non-permitted site pursuant to this Rule may request that the ~~Director~~ Secretary approve termination of corrective action.
- (1) A request submitted to the ~~Director~~ Secretary under this Paragraph shall include:
    - (A) a discussion of the duration of the corrective action, the total project's cost, projected annual cost for continuance and evaluation of the success of the corrective action;
    - (B) an evaluation of alternate treatment technologies which could result in further reduction of contaminant levels projected capital and annual operating costs for each technology;
    - (C) effects, including health and safety impacts, on groundwater users if contaminant levels remain at levels existing at the time corrective action is terminated; and

- (D) any other information requested by the ~~Director~~ Secretary to thoroughly evaluate the request.
- (2) In addition, the person making the request must demonstrate to the satisfaction of the ~~Director~~ Secretary:
- (A) that continuation of corrective action would not result in a significant reduction in the concentration of contaminants (At a minimum this demonstration must show the duration and degree of success of existing remedial efforts to attain standards and include a showing that the asymptotic slope of the contaminants curve of decontamination is less than a ratio of 1:40 over a term of one year based on quarterly sampling);
  - (B) that contaminants have not and will not migrate onto adjacent properties, or that:
    - (i) such properties are served by an existing public water supply system dependent on surface waters or hydraulically isolated groundwater, or
    - (ii) the owners of such properties have consented in writing to the request;
  - (C) that, if the contaminant plumes expected to intercept surface waters, the groundwater discharge will not possess contaminant concentrations that would result in violations of standards for surface waters contained in 15A NCAC 2B .0200;
  - (D) that public notice of the request has been provided in accordance with Rule .0114(b) of this Section; and
  - (E) that the proposed termination would be consistent with all other environmental laws.
- (3) The ~~Director~~ Secretary shall not authorize termination of corrective action for any area that, at the time the request is made, has been identified by a state or local groundwater use planning process for resource development.
- (4) The ~~Director~~ Secretary may authorize the termination of corrective action, or amend the corrective action plan after considering all the information in the request. Upon termination of corrective action, the ~~Director~~ Secretary shall require implementation of a groundwater monitoring program sufficient to track the degradation and attenuation of contaminants at a location of at least one year's predicted time of travel upgradient of any existing or foreseeable receptor. The monitoring program shall remain in effect until there is sufficient evidence that the contaminant concentrations have been reduced to the level of the standards.
- (n) Upon a determination by the ~~Director~~ Secretary that continued corrective action would result in no significant reduction in contaminant concentrations, and the contaminated groundwaters can be rendered potable by treatment using readily available and economically reasonable technologies, the ~~Director~~ Secretary may designate the remaining area of degraded groundwater RS. Where the remaining degraded groundwaters cannot be made potable by such treatment, the ~~Director~~ Secretary may consider a request for reclassification of the groundwater to a GC classification as outlined in Rule .0201 of this Subchapter.
- (o) If at any time the ~~Director~~ Secretary determines that a new technology is available that would remediate the contaminated groundwater to the standards specified in Rule .0202 of this Subchapter, the ~~Director~~ Secretary may require the responsible party to evaluate the economic and technological feasibility of implementing the new technology in an active groundwater corrective action plan in accordance with a schedule established by the ~~Director~~ Secretary. The ~~Director's~~ Secretary's

determination to utilize new technology at any site or for any particular constituent shall include a consideration of the factors in Paragraph (h) of this Rule.

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

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

(r) If a discharge or release is not governed by 15A NCAC 2L .0115 and the increase in the concentration of a substance in excess of the standard resulted in whole or in part from a release from a commercial or noncommercial underground storage tank as defined in G.S. 143-215.94A, any person required to implement an approved corrective action plan pursuant to this Rule and seeking reimbursement for the Commercial or Noncommercial Leaking Petroleum Underground Storage Tank Cleanup Funds shall implement a corrective action plan meeting the requirements of Paragraph (k) or (l) of this Rule unless such a person demonstrates to the ~~Director~~ Secretary that:

- (1) contamination resulting from the discharge cannot qualify for approval of a plan based on the requirements of the Paragraphs; or
- (2) the cost of making such a demonstration would exceed the cost of implementing a corrective action plan submitted pursuant to Paragraph (c) of this Rule.

(s) If a discharge or release is not governed by 15A NCAC 2L .0115 and the increase in the concentration of a substance in excess of the standard resulted in whole or in part from a release from a commercial or noncommercial underground storage tank as defined in G.S. 143-215.94A, the ~~Director~~ Secretary may require any person implementing or operating a previously approved corrective action plan pursuant to this Rule to:

- (1) develop and implement a corrective action plan meeting the requirements of Paragraphs (k) and (l) of this Rule; or
- (2) seek discontinuance of corrective action pursuant to Paragraph (m) of this Rule.

*History Note: Authority G.S. 143-215.2; 143-215.3(a)(1); 143-215.94A; 143-215.94T; 143-215.94V; 143B-282;  
1995 (Reg. Sess. 1996) c. 648, s. 1;  
Eff. August 1, 1989;  
Amended Eff. October 1, 1993; September 1, 1992;  
Temporary Amendment Eff. January 2, 1998; January 2, 1996;  
Amended Eff. October 29, 1998.*

Session Law 2014-122 (the Coal Ash Management Act of 2014) Section 12(a)

**"§ 113-415. Conflicting laws.**

No provision of this Article shall be construed to repeal, amend, abridge or otherwise affect: ~~(i) affect the authority and responsibility~~ responsibility (i) vested in the Environmental Management Commission by Article 7 of Chapter 87 of the General Statutes, pertaining to the location, construction, repair, operation and abandonment of wells, ~~or the authority and responsibility wells;~~ (ii) vested in the Environmental Management Commission related to the control of water and air pollution as provided in Articles 21 and 21A of Chapter 143 of the General Statutes; ~~or (ii) the authority or responsibility~~ (iii) vested in the Department and the Environmental Management Commission for Public Health by Article 10 of Chapter 130A of the General Statutes pertaining to public water-supply ~~requirements, requirements;~~ requirements; or the authority and responsibility (iv) vested in the Environmental Management Commission for Public Health related to the management of solid and hazardous waste as provided in Article 9 of Chapter 130A of the General Statutes."

**SECTION 11.(l)** The Revisor of Statutes shall make any conforming statutory changes necessary to reflect the transfer of rule-making authority under Article 9 of Chapter 130A of the General Statutes from the Commission for Public Health to the Environmental Management Commission.

**SECTION 11.(m)** The Codifier of Rules shall make any conforming rule changes necessary to reflect the transfer of rule-making authority under Article 9 of Chapter 130A of the General Statutes from the Commission for Public Health to the Environmental Management Commission.

**PART VII. AMEND COMPLIANCE BOUNDARY PROVISIONS**

**SECTION 12.(a)** G.S. 143-215.1 reads as rewritten:

**"§ 143-215.1. Control of sources of water pollution; permits required.**

(i) Any person subject to the requirements of this section who is required to obtain an individual permit from the Commission for a disposal system under the authority of G.S. 143-215.1 or Chapter 130A of the General Statutes shall have a compliance boundary as may be established by rule or permit for various categories of disposal systems and beyond which groundwater quality standards may not be exceeded. ~~The location of the compliance boundary shall be established at the property boundary, except as otherwise established by the Commission.~~ Multiple contiguous properties under common ownership and permitted for use as a disposal system shall be treated as a single property with regard to determination of a compliance boundary under this subsection. ~~Nothing in this subsection shall be interpreted to require a revision to an existing compliance boundary previously approved by rule or permit boundary.~~

(j) ~~When operation of a disposal system permitted under this section results in an exceedance of the groundwater quality standards adopted in accordance with G.S. 143-214.1, the Commission shall require that the exceedances within the compliance boundary be remedied through cleanup, recovery, containment, or other response only when any of the following conditions occur:~~

- (1) ~~A violation of any water quality standard in adjoining classified waters of the State occurs or can be reasonably predicted to occur considering hydrogeological conditions, modeling, or any other available evidence.~~
- (2) ~~An imminent hazard or threat to the environment, public health, or safety exists.~~
- (3) ~~A violation of any standard in groundwater occurring in the bedrock, including limestone aquifers in Coastal Plain sediments, unless it can be demonstrated that the violation will not adversely affect, or have the potential to adversely affect, a water supply well.~~

(k) Where operation of a disposal system permitted under this section results in exceedances of the groundwater quality standards at or beyond the compliance boundary established under subsection (i) of this section, exceedances shall be remedied through cleanup, recovery, containment, or other response as directed by the Commission. boundary, the Commission shall require the permittee to undertake corrective action, without regard to the date that the system was first permitted, to restore the groundwater quality by assessing the cause, significance, and extent of the violation of standards and submit the results of the investigation and a plan and proposed schedule for corrective action to the Director or the

Director's designee. The permittee shall implement the plan as approved by, and in accordance with, a schedule established by the Director or the Director's designee. In establishing a schedule the Director or the Director's designee shall consider any reasonable schedule proposed by the permittee."

**SECTION 12.(b)** Section 46(b) of S.L. 2013-413 is repealed.

**SECTION 12.(c)** The Environmental Management Commission shall review the compliance boundary and corrective action provisions of Subchapter 2L of Title 15A of the North Carolina Administrative Code for clarity and internal consistency. The Commission shall report the results of its review, including any recommendations, to the Environmental Review Commission no later than December 1, 2014.

## **PART VIII. OTHER STUDIES**

**SECTION 13.(a)** The Coal Ash Management Commission, established pursuant to G.S. 130A-309.202, as enacted by Section 3(a) of this act, shall study whether and under what circumstances no further action or natural attenuation is appropriate for a coal combustion residuals surface impoundment that is classified as low-risk pursuant to G.S. 130A-309.211, as enacted by Section 3(a) of this act. In conducting this study, the Commission shall specifically consider whether there is any contact or interaction between coal combustion residuals and groundwater and surface water, whether the area has reverted to a natural state as evidenced by the presence of wildlife and vegetation, and whether no further action or natural attenuation would be protective of public health, safety, and welfare; the environment; and natural resources. The Commission shall report the results of its study, including any recommendations, to the Environmental Review Commission no later than October 1, 2015.

**SECTION 13.(b)** The Department of Environment and Natural Resources shall review and make recommendations on all deadlines established under Part 2I of Article 9 of Chapter 130A of the General Statutes, as enacted by Section 3(a) of this act. At a minimum, the Department shall identify all permits that may be required for closure requirements established under this act and expected time frames for issuance of these permits. The Department shall report the results of its study, including any recommendations, to the Environmental Review Commission no later than December 1, 2014.

**SECTION 13.(c)** The Coal Ash Management Commission, established pursuant to G.S. 130A-309.202, as enacted by Section 3(a) of this act, shall study how to promote, incentivize, and prioritize the beneficial use of coal combustion products over the disposal of coal combustion residuals. The Commission shall report the results of its study, including any recommendations, to the Environmental Review Commission no later than December 1, 2014.

**SECTION 14.** The Department of Transportation shall evaluate additional opportunities for the use of coal combustion products in the construction and maintenance of roads and bridges within the State. The Department shall report the results of its study, including any recommendations, to the Environmental Review Commission and the Joint Legislative Transportation Oversight Committee no later than December 1, 2014.

## **PART IX. PROVIDE RESOURCES FOR IMPLEMENTATION OF THIS ACT**

**SECTION 15.(a)** Article 14 of Chapter 62 of the General Statutes is amended by adding a new section to read:

### **"§ 62-302.1. Regulatory fee for combustion residuals surface impoundments.**

**(a) Fee Imposed.** – Each public utility with a coal combustion residuals surface impoundment shall pay a regulatory fee for the purpose of defraying the costs of oversight of coal combustion residuals. The fee is in addition to the fee imposed under G.S. 62-302. The fees collected under this section shall only be used to pay the expenses of the Coal Ash Management Commission and the Department of Environment and Natural Resources in providing oversight of coal combustion residuals.

**(b) Rate.** – The combustion residuals surface impoundment fee shall be three-hundredths of one percent (0.03%) of the North Carolina jurisdictional revenues of each public utility with a coal combustion residuals surface impoundment. For the purposes of this section, the term "North Carolina jurisdictional revenues" has the same meaning as in G.S. 62-302.

**(c) When Due.** – The fee shall be paid in quarterly installments. The fee is payable to the Coal Ash Management Commission on or before the 15th of the second month following the end of each quarter. Each public utility subject to this fee shall, on or before the date the fee