

1 15A NCAC 02L .0106 is proposed for amendment as follows:

2 15A NCAC 02L .0106 is amended with changes as published in 29:24 NCR 2790-2794 as follows:

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5 **15A NCAC 02L .0106 CORRECTIVE ACTION**

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

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

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

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

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

36 (d) Any person conducting or controlling an activity which that is conducted under the authority of a
37 permit initially issued by the ~~Division~~ Department on or after December 30, 1983 pursuant to G.S.
38 143-215.1 or G.S. 130A-294 and which that results in an increase in concentration of a substance in
39 excess of the standards:

- 40 (1) at or beyond a review boundary, shall demonstrate, through predictive calculations or
41 modeling, that natural site conditions, facility design and operational controls will
42 prevent a violation of standards at the compliance boundary; or submit a plan for
43 alteration of existing site conditions, facility design or operational controls that will
44 prevent a violation at the compliance boundary, and implement that plan upon its
45 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 (e) 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 (e) 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 (e) 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.

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

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

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

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

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

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

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

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

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

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

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

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

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

3 (10) that the proposed corrective action plan would be consistent with all other
4 environmental laws.

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

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

9 (A) a discussion of the duration of the corrective action, the total project's cost,
10 projected annual cost for continuance and evaluation of the success of the
11 corrective action;

12 (B) an evaluation of alternate treatment technologies which that could result in
13 further reduction of contaminant levels projected capital and annual operating
14 costs for each technology;

15 (C) effects, including health and safety impacts, on groundwater users if
16 contaminant levels remain at levels existing at the time corrective action is
17 terminated; and

18 (D) any other information requested by the ~~Director~~ Secretary to thoroughly
19 evaluate the request.

20 (2) In addition, the person making the request must shall demonstrate to the satisfaction of
21 the ~~Director~~ Secretary:

22 (A) that continuation of corrective action would not result in a significant reduction
23 in the concentration of contaminants contaminants. ~~(At a minimum this~~
24 ~~demonstration must show the duration and degree of success of existing~~
25 ~~remedial efforts to attain standards and include a showing that the asymptotic~~
26 ~~slope of the contaminants curve of decontamination is less than a ratio of 1:40~~
27 ~~over a term of one year based on quarterly sampling)~~ This demonstration shall
28 show the duration and degree of success of existing remedial efforts to attain
29 standards and include a showing that the asymptotic slope of the contaminants
30 curve of decontamination is less than a ratio of 1:40 over a term of one year
31 based on quarterly sampling.;

32 (B) that contaminants have not and will not migrate onto adjacent properties, or
33 that:

34 (i) such properties are served by an existing public water supply system
35 dependent on surface waters or hydraulically isolated groundwater, or

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

37 (C) that, if the contaminant plumes expected to intercept surface waters, the
38 groundwater discharge will not possess contaminant concentrations that would
39 result in violations of standards for surface waters contained in 15A NCAC 2B
40 .0200;

41 (D) that public notice of the request has been provided in accordance with Rule
42 .0114(b) of this Section; and

43 (E) that the proposed termination would be consistent with all other environmental
44 laws.

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

4 (4) The ~~Director~~ Secretary may authorize the termination of corrective action, or amend
5 the corrective action plan after considering all the information in the request. Upon
6 termination of corrective action, the ~~Director~~ Secretary shall require implementation of
7 a groundwater monitoring program sufficient to track the degradation and attenuation
8 of contaminants at a location of at least one year's predicted time of travel upgradient
9 of any existing or foreseeable receptor. The monitoring program shall remain in effect
10 until there is sufficient evidence that the contaminant concentrations have been reduced
11 to the level of the standards.

12 (n) Upon a determination by the ~~Director~~ Secretary that continued corrective action would result in
13 no significant reduction in contaminant concentrations, and the contaminated groundwaters can be
14 rendered potable by treatment using readily available and economically reasonable technologies, the
15 ~~Director~~ Secretary may designate the remaining area of degraded groundwater RS. Where the
16 remaining degraded groundwaters cannot be made potable by such treatment, the ~~Director~~ Secretary
17 may consider a request for reclassification of the groundwater to a GC classification as outlined in
18 Rule .0201 of this Subchapter.

19 (o) If at any time the ~~Director~~ Secretary determines that a new technology is available that would
20 remediate the contaminated groundwater to the standards specified in Rule .0202 of this Subchapter,
21 the ~~Director~~ Secretary may require the responsible party to evaluate the economic and technological
22 feasibility of implementing the new technology in an active groundwater corrective action plan in
23 accordance with a schedule established by the ~~Director~~ Secretary. The ~~Director's~~ Secretary's
24 determination to utilize new technology at any site or for any particular constituent shall include a
25 consideration of the factors in Paragraph (h) of this Rule.

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

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

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

43 (1) contamination resulting from the discharge cannot qualify for approval of a plan based
44 on the requirements of the Paragraphs; or

45 (2) the cost of making such a demonstration would exceed the cost of implementing a
46 corrective action plan submitted pursuant to Paragraph (c) of this Rule.

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

- 6 (1) develop and implement a corrective action plan meeting the requirements of Paragraphs
7 (k) and (l) of this Rule; or
8 (2) seek discontinuance of corrective action pursuant to Paragraph (m) of this Rule.
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10 *History Note: Authority G.S. 143-215.2; 143-215.3(a)(1); 143-215.94A; 143-215.94T; 143-215.94V;*
11 *143B-282;*
12 *1995 (Reg. Sess. 1996) c. 648, s. 1;*
13 *Eff. August 1, 1989;*
14 *Amended Eff. October 1, 1993; September 1, 1992;*
15 *Temporary Amendment Eff. January 2, 1998; January 2, 1996;*
16 *Amended Eff. April 1, 2016; October 29, 1998.*