

STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WASTE MANAGEMENT

REPORT OF PROCEEDINGS OF PUBLIC HEARING ON PROPOSED ADDITIONS:

15A NCAC 02L .0500—
RISK-BASED ASSESSMENT AND CORRECTIVE ACTION FOR NON-UST PETROLEUM
RELEASES

AUGUST 26, 2015
RALEIGH, NORTH CAROLINA

ENVIRONMENTAL MANAGEMENT COMMISSION

CONTENTS

Summaries and Recommendations

- Background and Summary
- Public Comments and Responses Thereto
- Conclusion
- Hearing Officer's Recommendations

Report of Proceedings

- Introduction
- Designation of Hearing Office
- Public Notice
- Transcript

Exhibits

- Fiscal Impacts of Proposed Rule (no change)
- Proposed Rules with Recommended Clarifications and Correction
- Proposed Rules as Presented at the Hearing
- Written Comments Received During Comment Period

SUMMARIES AND RECOMMENDATION

Background and Summary

A public hearing was held in Raleigh North Carolina on August 26, 2015, to hear public comments on proposed rules governing petroleum releases from non-underground storage tank (USTs) systems. Ms. Carin Kromm of the UST Section acted as the hearing officer for this hearing.

The Department of Environment and Natural Resources (DENR) implements and enforces rules relating to petroleum releases associated with UST systems and non-UST sources.

Mr. Marvin E. Taylor Jr. petitioned the EMC to make rules for the risk-based assessment of petroleum discharges and releases from non-UST sources under 150B-20 on May 15, 2014. In addition, stakeholders maintain that the rules for non-UST petroleum releases are inconsistent with those risk-based rules required for petroleum releases from USTs. On July 19, 2014, the Groundwater Committee heard the Petition and directed DWM UST Section staff to develop draft rule to be considered at a future Committee meeting. The EMC directed DWM UST Section to draft rules that were substantially identical to the provisions of the UST risk-based rules in Title 15A NCAC 2L .0400.

The rule changes will, in essence:

- Provide risk-based assessment and cleanup of discharges and releases of petroleum from aboveground storage tanks and other sources.
- Determine initial abatement procedures.
- Criteria for determining acceptable cleanup levels for soil and groundwater which is protective of human health and the environment.
- Determine an acceptable level or range of levels of risk to human health and the environment.
- Determine remediation standards and processes
- Determine pathway to incident closure.

Public Comments and Responses Thereto

Two sets of comments were received during the public hearing and two comments and one follow up email was received during the subsequent 30-day comment period.

Comment No. 1: Ms. Cralle Jones, Attorney, Law Office of F. Bryan Brice, Jr. commented in favor of the proposed rules as written.

Response No. 1: No change to the rule is recommended.

Comment No. 2: Mr. Bill Walsh, Catlin Engineers and Scientists, requested the following text changes to the rule:

.0504 starting at line 18 – Clarification of language

.0506 line 3 – removed (3) for proper reference

Response No. 2: The changes to the rule are recommended and attached.

Comment No. 3: Mr. Douglas Howey, Government & Regulatory Affairs Director, North Carolina Petroleum & Convenience Marketers commented in favor of the proposed rule as written.

Response No. 3: No change to the rule is recommended. Mr. Howey's letter is attached.

Comment No. 4: Mr. Bill Walsh sent an email as a follow up to Comment No. 2 which occurred during the Public Hearing. He requested the following text changes to the rule.

.0504 starting at line 18 – Clarification of language

.0506 line 3 – removed (3) for proper reference

Response No. 4:

The changes to the rule are recommended and the email is attached.

Comment No. 5: Ms. Linda Smith, DWM UST Section, removed a typographical error.

.0505 line 34 – removed space at the end of the line

Response No. 5: Change is recommended and is attached.

Conclusion

Two of five comments received were in favor of the proposed rules as written. The third comment and subsequent follow up email requested text changes, for language clarification and to correct an improper reference. In addition, a space was removed to correct a typographical error.

Hearing Officer Recommendation

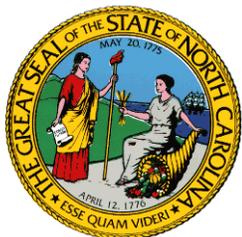
The Hearing Office recommends that the proposed amendments as presented in the hearing report be adopted by the Environmental Management Commission.

REPORT OF PROCEEDINGS

Introduction

The Department of Environment and Natural Resources, Division of Waste Management, held a public hearing on August 26, 2015 at 2:00 p.m. in the Training Room #1210, DENR Green Square Building located at 217 West Jones Street in Raleigh, North Carolina.

The hearing considered the proposed Rule 15A NCAC 2L .0500. The proposed effective date for these rules is to be January 2, 2016. A public notice announcing this hearing was posted to the DWM website, and the North Carolina Register at least 20 days before the public hearing.



ENVIRONMENTAL MANAGEMENT COMMISSION

NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY

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Clyde E. Smith, Jr.
John D. Solomon
Steve W. Tedder
Julie A. Wilsey

October 9, 2015

MEMORANDUM

TO: Carin Kromm,

FROM: Gerard C. Carroll, Chairman

SUBJECT: Hearing Officer Appointment

This memorandum serves as verification that I appointed you to serve as hearing officer for the public hearing associated with the Adoption of Proposed Rules (15A NCAC 02L Section .0500) Risk-Based Assessment and Corrective Action for Non-UST Petroleum Releases. The purpose of this hearing was to gather public stakeholder comments as part of the Rule adoption process required by North Carolina Law. In addition to this memorandum, a copy of the original appointment documentation via electronic communication is attach for the record.

The public hearing was held in Raleigh, North Carolina on August 26, 2015, with the public comment period closing on October 2, 2015.

Thank you for your assistance and service.

cc: Linda Smith
Art Barnhardt
Kim Wendell
Lois Thomas

From: Jerry's Gmail [<mailto:cltgpc@gmail.com>]
Sent: Monday, July 20, 2015 8:39 PM
To: Kevin Martin <kmartinncemc@hotmail.com>
Cc: Barnhardt, Art <art.barnhardt@ncdenr.gov>; Excell Ferrell <eoferrell3@gmail.com>; GPC Environmental <gpcemc@gmail.com>; Culpepper, Linda <linda.culpepper@ncdenr.gov>; Smith, Linda <linda.l.smith@ncdenr.gov>; Lance, Kathleen C <Kathleen.Lance@ncdenr.gov>
Subject: Re: Hearing Officers

Fine with me.

Sent from my iPhone

On Jul 20, 2015, at 1:13 PM, Kevin Martin <kmartinncemc@hotmail.com> wrote:

I discussed this with the Commission chair at the last meeting. He and I are both okay with staff handling this since Mr Ferrell could not

Sent from my Verizon Wireless 4G LTE smartphone

----- Original message -----

From: "Barnhardt, Art" <art.barnhardt@ncdenr.gov>
Date: 07/20/2015 10:48 AM (GMT-05:00)
To: Excell Ferrell <eoferrell3@gmail.com>, 'GPC Environmental' <gpcemc@gmail.com>
Cc: 'Kevin Martin' <kmartinncemc@hotmail.com>, "Culpepper, Linda" <linda.culpepper@ncdenr.gov>, "Smith, Linda" <linda.l.smith@ncdenr.gov>, "Lance, Kathleen C" <Kathleen.Lance@ncdenr.gov>
Subject: RE: Hearing Officers

Chairman Martin:

In lieu of Commissioner Ferrell's inability to participate, I propose we proceed with Carin Kromm as the Hearing Officer (solo). We do have until this Wednesday to pull the posting from the Register if you would like to go in a different direction. We can work with the Commission either way on this matter; just let me know if we need to pull the notice by Tuesday if possible.

Thanks in advance

Art Barnhardt

Underground Storage Tank Section Chief
 NC DENR Division of Waste Management
 Phone/Fax: 919-707-8263

Physical Address:
 Green Square Office Complex
 217 West Jones Street
 Raleigh, NC 27603-6100

Mailing Address:
 1637 Mail Service Center
 Raleigh, NC 27699-1637

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VOLUME 30 • ISSUE 03 • Pages 262 - 431

August 3, 2015

I. EXECUTIVE ORDERS

Executive Order No. 75 262 – 264

II. IN ADDITION

Environmental Management Commission – Extension of Comment Period 266

Pharmacy, Board of – Extension of Comment Period 265

III. PROPOSED RULES

Environment and Natural Resources, Department of

Environmental Management Commission 284 – 291

Marine Fisheries Commission 291 – 297

Health and Human Services, Department of

Medical Care Commission 267 – 268

Justice, Department of

Criminal Justice Education and Training Standards Commission 268 – 284

Occupational Licensing Boards and Commissions

Irrigation Contractors Licensing Board 297 – 298

Optometry, Board of Examiners in 298

Veterinary Medical Board 298 – 299

IV. APPROVED RULES 300 – 347

Commerce, Department of

Employment Security, Division of

Health and Human Services, Department of

Public Health, Commission for

Social Services Commission

Environment and Natural Resources, Department of

Coastal Resources Commission

Public Health, Commission for

Occupational Licensing Boards and Commissions Certified

Public Account Examiners, Board of Dental Examiners,

Board of

Pharmacy, Board of

V. RULES REVIEW COMMISSION 348 – 352

VI. CONTESTED CASE DECISIONS

Index to ALJ Decisions 353

Text of ALJ Decisions

13 CPS 14371 354 – 359

13 DHR 10745 360 – 371

13 DHR 18151 372 – 386

13 DHR 19653/19654 387 – 401

13 EHR 18085 402 – 431

- (2) Present evidence showing successful completion of a Commission-certified instructor training program or an equivalent instructor training course utilizing the Instructional Systems Design model, an international model with applications in education, military training, and private enterprise; and
- (3) Achieve a passing score on the comprehensive written examination administered by the Commission, as specified in 12 NCAC 09B .0413(d), of this Chapter, within 60 days of completion of the Commission-certified instructor training program.

(b) Applications for General Instructor Certification shall be submitted to the Standards Division within 60 days of the date the applicant achieved a passing score on the comprehensive written examination administered by the Commission for the Commission-certified instructor training program or an equivalent instructor training course utilizing the Instructional Systems Design model, an international model with applications in education, military training, and private enterprise.

(c) Persons having completed a Commission-certified instructor training course or an equivalent instructor training course utilizing the Instructional Systems Design model, an international model with applications in education, military training, and private enterprise, and not having made application within 60 days of completion of the course shall complete a subsequent Commission-certified instructor training course.

Authority G.S. 17C-6.

12 NCAC 09G .0405 CERTIFICATION OF SCHOOL DIRECTORS

(a) Any person designated to act as, or who performs the duties of, a School Director in the delivery or presentation of a Commission-certified corrections training course shall be and continuously remain certified by the Commission as a School Director.

(b) To qualify for initial certification as a corrections School Director, an applicant shall:

- (1) Attend and successfully complete a Commission-certified instructor training course or an equivalent instructor training program as determined by the Commission (if certified after January 1, 2006); and
- (2) present documentary evidence showing that the applicant:
 - (A) is a high school graduate or has received passed the General Education Development Test (GED) indicating a high school equivalency credential as recognized by the issuing state and has acquired five years of practical experience as a criminal justice officer, corrections officer, or as an administrator or specialist in a field directly related to the corrections

- (B) system. At least one year of the required five years experience must have been while actively participating in corrections training as a Commission-certified instructor; or has been awarded an associate degree and has acquired four years of practical experience as a criminal justice officer, corrections officer, or as an administrator or specialist in a field directly related to the corrections system. At least one year of the required four years experience must have been while directly participating in corrections training as a Commission-certified instructor; or
- (C) has been awarded a baccalaureate degree from a regionally accredited institution of higher learning;
- (3) attend or have attended the most current offering of the School Director's orientation as developed and presented by the Commission staff, otherwise an individual orientation with a staff member shall be required; and
- (4) submit a written request to the Commission for the issuance of such certification. This request shall be executed by the executive officer of the North Carolina Department of Correction.
- (c) To qualify for certification as a School Director in the presentation of the "Criminal Justice Instructor Training Course" an applicant shall:

- (1) document that he/she has been awarded a baccalaureate degree from a regionally accredited institution of higher learning;
- (2) present evidence showing successful completion of a Commission-certified instructor training course or an equivalent instructor training program as determined by the Commission;
- (3) be currently certified as a criminal justice instructor by the Commission; and
- (4) document successful participation in a special program presented by the Justice Academy for purposes of familiarization and supplementation relevant to delivery of the instructor training course and trainee evaluation.

Authority G.S. 17C-6.

TITLE 15A – DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

Notice is hereby given in accordance with G.S. 150B-21.2 that the Environmental Management Commission intends to adopt the rules cited as 15A NCAC 02L .0501 - .0515.

Link to agency website pursuant to G.S. 150B-19.1(c):
<http://portal.ncdenr.org/web/wm/ust/whatsnew>

Proposed Effective Date: *January 2, 2016*

Public Hearing:

Date: *August 26, 2015*

Time: *2:00 p.m.*

Location: *Green Square Building, Room 1210, 217 West Jones Street, Raleigh, NC 27603*

Reason for Proposed Action: *The Environmental Management Commission has received a petition for rulemaking and the Division of Waste Management has taken comments from stakeholders who maintain it is inconsistent to require risk-based remediation for only petroleum contamination from petroleum USTs. This change can be protective of human health and the environment and will reduce costs to some stakeholders.*

Comments may be submitted to: *Linda L. Smith, NCDENR/DWM/UST Section, 1637 Mail Service Center, Raleigh, NC 27699-1637, phone (919) 707-8150, fax (919) 715-1117, email Linda.L.Smith@ncdenr.gov*

Comment period ends: *October 2, 2015*

Procedure for Subjecting a Proposed Rule to Legislative Review:

If an objection is not resolved prior to the adoption of the rule, a person may also submit written objections to the Rules Review Commission after the adoption of the Rule. If the Rules Review Commission receives written and signed objections after the adoption of the Rule in accordance with G.S. 150B-21.3(b2) from 10 or more persons clearly requesting review by the legislature and the Rules Review Commission approves the rule, the rule will become effective as provided in G.S. 150B-21.3(b1). The Commission will receive written objections until 5:00 p.m. on the day following the day the Commission approves the rule. The Commission will receive those objections by mail, delivery service, hand delivery, or facsimile transmission. If you have any further questions concerning the submission of objections to the Commission, please call a Commission staff attorney at 919-431-3000.

Fiscal impact (check all that apply).

State funds affected

Environmental permitting of DOT affected

Analysis submitted to Board of Transportation

Local funds affected

Substantial economic impact (≥\$1,000,000)

Approved by OSBM

No fiscal note required by G.S. 150B-21.4

CHAPTER 02 - ENVIRONMENTAL MANAGEMENT

SUBCHAPTER 02L - GROUNDWATER CLASSIFICATION AND STANDARDS

SECTION .0500 – RISK-BASED ASSESSMENT AND CORRECTIVE ACTION FOR NON-UST PETROLEUM RELEASES

15A NCAC 02L .0501 PURPOSE AND SCOPE

(a) The purpose of this Section is to establish procedures for risk-based assessment and corrective action sufficient to:

- (1) protect human health and the environment;
- (2) abate and control contamination of the waters of the State as deemed necessary to protect human health and the environment;
- (3) permit management of the State's groundwaters to protect their designated current usage and potential future uses;
- (4) provide for anticipated future uses of the State's groundwater;
- (5) recognize the diversity of contaminants, the State's geology and the characteristics of each individual site; and
- (6) accomplish these goals in a cost-efficient manner to assure the best use of the limited resources available to address groundwater pollution within the State.

(b) The applicable portions of Section .0100 not specifically excluded apply to this Section.

Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282.

15A NCAC 02L .0502 DEFINITIONS

The definitions as set out in Rule .0102 of this Subchapter apply to this Section, except that the following definitions apply throughout this Section:

- (1) "Aboveground storage tank" or "AST" means any one or a combination of tanks (including underground pipes connected thereto) that is used to contain an accumulation of petroleum.
- (2) "AST system" means an aboveground storage tank, connected underground piping, underground ancillary equipment, and containment system, if any".
- (3) "Discharge" means, but is not limited to, any emission, spillage, leakage, pumping, pouring, emptying, or dumping of oil into groundwater or surface water or upon land in such proximity to such water that it is likely to reach the water and any discharge upon land which is intentional, knowing or willful.
- (4) "Operator" means any person in control of, or having responsibility for the daily operation of the AST system.
- (5) "Owner" means any person who owns a petroleum aboveground storage tank or other non-UST petroleum tank, stationary or mobile, used for storage, use, dispensing, or transport.
- (6) "Person" means an individual, trust, firm, joint stock company, Federal agency, corporation, state, municipality, commission, political subdivision of a state, or any interstate body.

"Person" also includes a consortium, a joint venture, a commercial entity, and the United States Government.

- (7) "Petroleum" is defined in G.S. 143-215.94A(10).
- (8) "Release" means any spilling, leaking, emitting, discharging, escaping, or leaching or disposing into groundwater, surface water, or surface or subsurface soils.
- (9) "Tank" is a device used to contain an accumulation of petroleum and constructed of non-earthen materials (e.g., concrete, steel, plastic) that provides structural support.

Authority G.S. 143-212(4); 143-215.2; 143-215.3(a)(1); 143-215.77; 143B-282.

15A NCAC 02L .0503 RULE APPLICATION

This Section applies to any non-UST petroleum discharge. The requirements of this Section shall apply to the owner and operator of a petroleum aboveground storage tank or other non-UST petroleum tank, stationary or mobile, from which a discharge or release occurred and any person determined to be responsible for assessment and cleanup of a discharge or release from a non-UST petroleum source, including any person who has conducted or controlled an activity which results in the discharge or release of petroleum or petroleum products (as defined in G.S. 143-215.94A(10)) to the groundwaters of the State, or in proximity thereto; these persons shall be collectively referred to for purposes of this Section as the "responsible party".

Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282.

15A NCAC 02L .0504 REQUIRED INITIAL RESPONSE AND ABATEMENT ACTIONS BY RESPONSIBLE PARTY

A responsible party shall:

- (1) take actions to prevent any further discharge or release of petroleum from the non-UST petroleum source; identify and mitigate any fire, explosion or vapor hazard; and report the release within 24 hours, in compliance with G.S. 143-215.83(a), 84(a), and 85(b);
- (2) perform initial abatement actions to measure for the presence of a release where contamination is most likely to be present and to confirm the precise source of the release; to investigate to determine the possible presence of free product and to begin free product removal; and to continue to monitor and mitigate any additional fire, vapor, or explosion hazards posed by vapors or by free product; and submit a report within 20 days after release confirmation summarizing these initial abatement actions;
- (3) remove contaminated soil which would act as continuing source of contamination to groundwater. For a new release, if initial

abatement actions involving control and removal of contaminated materials can be initiated within 48 hours from discovery; before contaminated materials have the opportunity to impact groundwater; and if remaining soils contain contaminants with levels less than the TPH action level or less than either the soil-to-groundwater or residential MSCCS (whichever is lowest); no further action is necessary. If the abatement actions cannot be initiated within 48 hours of discovery and petroleum contaminated soil concentrations less than TPH action level cannot be achieved, conduct activities in the subsequent items of this Rule.

- (4) conduct initial site assessment, assembling information about the site and the nature of the release, including but not necessarily limited to the following:

- (a) Site history and site characterization, including but not limited to, data on nature and estimated quantity of release and data from available sources and site investigations concerning surrounding populations, water quality, use, and approximate locations of wells, surface water bodies, and subsurface structures potentially effected by the release, subsurface soil conditions, locations of subsurface utilities, climatological conditions, and land use;
- (b) Results of free product investigations and free product removal, if applicable;
- (c) Results of groundwater and surface water investigations, if applicable;
- (d) Summary of initial response and abatement actions; and submit this information in the report required under Item (5) of this Rule.

- (5) submit within 90 days of the discovery of the discharge or release an initial assessment and abatement report containing the site characterization information required in Item (4) of this Rule; soil assessment information sufficient to show that remaining unsaturated soil in the side walls and at the base of the excavation does not contain contaminant levels which exceed either the "soil-to-groundwater" or the residential maximum soil contaminant concentrations established by the Department pursuant to Rule .0511 of this Section, whichever is lower; and documentation to show that neither bedrock nor groundwater was encountered in the excavation (or if groundwater was encountered, that contaminant concentrations in groundwater were equal to or less than the groundwater

quality standards established in Rule .0202 of this Subchapter). If such showing is made, the discharge or release shall be classified as low risk by the Department.

Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282.

15A NCAC 02L .0505 REQUIREMENTS FOR LIMITED SITE ASSESSMENT

If the required showing cannot be made under Rule .0504 of this Section, submit within 120 days of the discovery of the discharge or release, or within such other greater time limit approved by the Department, a report containing information needed by the Department to classify the level of risk to human health and the environment posed by a discharge or release under Rule .0506 of this Section. Such report shall include, at a minimum:

- (1) a location map, based on a USGS topographic map, showing the radius of 1500 feet from the source area of a confirmed release or discharge and depicting all water supply wells, surface waters and designated wellhead protection areas as defined in 42 U.S.C. 300h-7(e) within the 1500-foot radius. For purposes of this Section, source area means point of release or discharge from the non-UST petroleum source or, if the point of release cannot be determined precisely, source area is defined as the area of highest contaminant concentrations;
- (2) a determination of whether the source area of the discharge or release is within a designated wellhead protection area as defined in 42 U.S.C. 300h-7(e);
- (3) if the discharge or release is in the Coastal Plain physiographic region as designated on a map entitled "Geology of North Carolina" published by the Department in 1985, a determination of whether the source area of the discharge or release is located in an area in which there is recharge to an unconfined or semi-confined deeper aquifer which is being used or may be used as a source of drinking water;
- (4) a determination of whether vapors from the discharge or release pose a threat of explosion due to the accumulation of vapors in a confined space, pose a risk to public health from exposure, or pose any other serious threat to public health, public safety or the environment;
- (5) scaled site map(s) showing the location of the following which are on or adjacent to the property where the source is located: site boundaries, roads, buildings, basements, floor and storm drains, subsurface utilities, septic tanks and leach fields, underground and aboveground storage tank systems, monitoring wells, water supply wells, surface water bodies and other drainage features, borings and the sampling points;

(6) the results from a limited site assessment which shall include the following actions:

- (a) Determine the presence, the lateral and vertical extent, and the maximum concentration levels of soil and, if possible, groundwater contamination and free product accumulations.
- (b) Install as many monitoring wells constructed in accordance with 15A NCAC 02C, within the area of maximum soil or groundwater contamination as needed to determine the groundwater flow direction and maximum concentrations of dissolved groundwater contaminants or accumulations of free product, to include at a minimum three monitoring wells, unless a greater or lesser number are specified for a particular site by the Department ; during well construction, collect and analyze soil samples, which should represent the suspected highest contaminant-level locations by exhibiting visible contamination or elevated levels of volatile organic compounds, from successive locations at five-foot depth intervals in the boreholes of each monitoring well within the unsaturated zone; collect potentiometric data from each monitoring well; and collect and analyze groundwater or measure the amount of free product, if present, in each monitoring well;
- (7) the availability of public water supplies and the identification of properties served by the public water supplies within 1500 feet of the source area of a confirmed discharge or release;
- (8) the land use, including zoning if applicable, within 1500 feet of the source area of a confirmed discharge or release;
- (9) a discussion of site specific conditions or possible actions which could result in lowering the risk classification assigned to the release. Such discussion shall be based on information known or required to be obtained under this Paragraph; and
- (10) names and current addresses of all responsible parties for all petroleum sources for which a discharge or release is confirmed, the owner(s) of the land upon which such petroleum sources are located, and all potentially affected real property owners. Documentation of ownership of ASTs or other sources and of the property upon which a source is located shall be provided. When considering a request from a responsible party for additional time to submit

the report, the Division shall consider the extent to which the request for additional time is due to factors outside of the control of the responsible party, the previous history of the person submitting the report in complying with deadlines established under the Commission's rules, the technical complications associated with assessing the extent of contamination at the site or identifying potential receptors, and the necessity for action to eliminate an imminent threat to public health or the environment.

Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282.

15A NCAC 02L .0506 DISCHARGE OR RELEASE CLASSIFICATIONS

The Department shall classify the risk of each known discharge or release as high, intermediate or low risk unless the discharge or release has been classified under Rule .0504(3) of this Section. For purposes of this Section:

- (1) "High risk" means that:
 - (a) a water supply well, including one used for non-drinking purposes, has been contaminated by the release or discharge;
 - (b) a water supply well used for drinking water is located within 1000 feet of the source area of a confirmed discharge or release;
 - (c) a water supply well not used for drinking water is located within 250 feet of the source area of a confirmed discharge or release;
 - (d) the groundwater within 500 feet of the source area of a confirmed discharge or release has the potential for future use in that there is no source of water supply other than the groundwater;
 - (e) the vapors from the discharge or release pose a serious threat of explosion due to accumulation of the vapors in a confined space or pose a risk to public health from exposure; or
 - (f) the discharge or release poses an imminent danger to public health, public safety, or the environment.
- (2) "Intermediate risk" means that:
 - (a) surface water is located within 500 feet of the source area of a confirmed discharge or release and the maximum groundwater contaminant concentration exceeds the applicable surface water quality standards and criteria found in 15A NCAC 02B .0200 by a factor of 10;
 - (b) in the Coastal Plain physiographic region as designated on a map entitled

"Geology of North Carolina" published by the Department in 1985, the source area of a confirmed discharge or release is located in an area in which there is recharge to an unconfined or semi-confined deeper aquifer which the Department determines is being used or may be used as a source of drinking water;

- (c) the source area of a confirmed discharge or release is within a designated wellhead protection area, as defined in 42 U.S.C. 300h-7(e);
 - (d) the levels of groundwater contamination for any contaminant except ethylene dibromide, benzene and alkane and aromatic carbon fraction classes exceed 50 percent of the solubility of the contaminant at 25 degrees Celsius or 1,000 times the groundwater standard or interim standard established in Rule .0202 of this Subchapter, whichever is lower; or
 - (e) the levels of groundwater contamination for ethylene dibromide and benzene exceed 1,000 times the federal drinking water standard set out in 40 CFR 141.
- (3) "Low risk" means that:
- (a) the risk posed does not fall within the high or intermediate risk categories; or
 - (b) based on review of site-specific information, limited assessment or interim corrective actions, the Department determines that the discharge or release poses no significant risk to human health or the environment.

If the criteria for more than one risk category applies, the discharge or release shall be classified at the highest risk level identified in Rule .0507 of this Section.

Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282.

15A NCAC 02L .0507 RECLASSIFICATION OF RISK LEVELS

(a) The Department may reclassify the risk posed by a release if warranted by further information concerning the potential exposure of receptors to the discharge or release or upon receipt of new information concerning changed conditions at the site. After initial classification of the discharge or release, the Department may require limited assessment, interim corrective action, or other actions which the Department believes will result in a lower risk classification. It shall be a continuing obligation of each responsible party to notify the Department of any changes that might affect the level of risk assigned to a discharge or release by the Department if the change is known or should be known by

the responsible party. Such changes shall include, but shall not be limited to, changes in zoning of real property, use of real property or the use of groundwater that has been contaminated or is expected to be contaminated by the discharge or release, if such change could cause the Department to reclassify the risk.

(b) If the risk posed by a discharge or release is determined by the Department to be high risk, the responsible party shall comply with the assessment and cleanup requirements of Rule .0106(c), (g) and (h) of this Subchapter. The goal of any required corrective action for groundwater contamination shall be restoration to the level of the groundwater standards set forth in Rule .0202 of this Subchapter, or as closely thereto as is economically and technologically feasible. In any corrective action plan submitted pursuant to this Paragraph, natural attenuation shall be used to the maximum extent possible. If the responsible party demonstrates that natural attenuation prevents the further migration of the plume, the Department may approve a groundwater monitoring plan.

(c) If the risk posed by a discharge or release is determined by the Department to be an intermediate risk, the responsible party shall comply with the assessment requirements of Rule .0106(c) and (g) of this Subchapter. As part of the comprehensive site assessment, the responsible party shall evaluate, based on site specific conditions, whether the release poses a significant risk to human health or the environment. If the Department determines, based on the site-specific conditions, that the discharge or release does not pose a significant threat to human health or the environment, the site shall be reclassified as a low risk site. If the site is not reclassified, the responsible party shall, at the direction of the Department, submit a groundwater monitoring plan or a corrective action plan, or a combination thereof, meeting the cleanup standards of this Paragraph and containing the information required in Rule .0106(h) of this Subchapter. Discharges or releases which are classified as intermediate risk shall be remediated, at a minimum, to a cleanup level of 50 percent of the solubility of the contaminant at 25 degrees Celsius or 1,000 times the groundwater standard or interim standard established in Rule .0202 of this Subchapter, whichever is lower for any groundwater contaminant except ethylene dibromide, benzene and alkane and aromatic carbon fraction classes. Ethylene dibromide and benzene shall be remediated to a cleanup level of 1,000 times the federal drinking water standard set out in 40 CFR 141. Additionally, if a corrective action plan or groundwater monitoring plan is required under this Paragraph, the responsible party shall demonstrate that the groundwater cleanup levels are sufficient to prevent a violation of:

- (1) the rules contained in 15A NCAC 02B;
- (2) the standards contained in Rule .0202 of this Subchapter in a deep aquifer as described in Rule .0506(2)(b) of this Section; and
- (3) the standards contained in Rule .0202 of this Subchapter at a location no closer than one year time of travel upgradient of a well within a designated wellhead protection area, based on travel time and the natural attenuation capacity of the subsurface materials or on a physical barrier to groundwater migration that exists or

will be installed by the person making the request.

In any corrective action plan submitted pursuant to this Paragraph, natural attenuation shall be used to the maximum extent possible. (d) If the risk posed by a discharge or release is determined by the Department to be a low risk, the Department shall notify the responsible party that no cleanup, no further cleanup or no further action will be required by the Department, unless the Department later determines that the discharge or release poses an unacceptable risk or a potentially unacceptable risk to human health or the environment. No notification will be issued pursuant to this Paragraph, however, until the responsible party has completed soil remediation pursuant to Rule .0508 of this Section or as closely thereto as economically or technologically feasible; has submitted proof of public notification and has recorded any land-use restriction(s), if required; and paid any applicable statutorily authorized fees. The issuance by the Department of a notification under this Paragraph shall not affect any private right of action by any party which may be affected by the contamination.

Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282.

15A NCAC 02L .0508 ASSESSMENT AND REMEDIATION PROCEDURES

Assessment and remediation of soil contamination shall be addressed as follows:

- (1) At the time that the Department determines the risk posed by the discharge or release, the Department shall also determine, based on site-specific information, whether the site is "residential" or "industrial/commercial." For purposes of this Section, a site is presumed residential, but may be classified as industrial/commercial if the Department determines based on site-specific information that exposure to the soil contamination is limited in time due to the use of the site and does not involve exposure to children. For purposes of this Item, "site" means both the property upon which the discharge or release has occurred and any property upon which soil has been affected by the discharge or release.
- (2) The responsible party shall submit a report to the Department assessing the vertical and horizontal extent of soil contamination.
- (3) For a discharge or release classified by the Department as low risk, the responsible party shall submit a report demonstrating that soil contamination has been remediated to either the residential or industrial/commercial maximum soil contaminant concentration established by the Department pursuant to Rule .0511 of this Section, whichever is applicable.
- (4) For a discharge or release classified by the Department as high or intermediate risk, the responsible party shall submit a report

demonstrating that soil contamination has been remediated to the lower of:

- (a) the residential or industrial/commercial maximum soil contaminant concentration, whichever is applicable, that has been established by the Department pursuant to Rule .0511 of this Section; or
- (b) the "soil-to-groundwater" maximum soil contaminant concentration that has been established by the Department pursuant to Rule .0511 of this Section.

Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282.

15A NCAC 02L .0509 NOTIFICATION REQUIREMENTS

(a) A responsible party who submits a corrective action plan which proposes natural attenuation or to cleanup groundwater contamination to a standard other than a standard or interim standard established in Rule .0202 of this Subchapter, or to cleanup soil other than to the standard for residential use or soil-to-groundwater contaminant concentration established pursuant to this Section, whichever is lowest, shall give notice to: the local Health Director and the chief administrative officer of each political jurisdiction in which the contamination occurs; all property owners and occupants within or contiguous to the area containing the contamination; and all property owners and occupants within or contiguous to the area where the contamination is expected to migrate. Such notice shall describe the nature of the plan and the reasons supporting it. Notification shall be made by certified mail concurrent with the submittal of the corrective action plan. Approval of the corrective action plan by the Department shall be postponed for a period of 30 days following receipt of the request so that the Department may consider comments submitted. The responsible party shall, within a time frame determined by the Department to be sufficient, provide the Department with a copy of the notice and proof of receipt of each required notice, or of refusal by the addressee to accept delivery of a required notice. If notice by certified mail to occupants under this Paragraph is impractical, the responsible party may give notice by posting such notice prominently in a manner designed to give actual notice to the occupants. If notice is made to occupants by posting, the responsible party shall provide the Department with a copy of the posted notice and a description of the manner in which such posted notice was given.

(b) A responsible party who receives a notice pursuant to Rule .0507(d) of this Section for a discharge or release which has not been remediated to the groundwater standards or interim standards established in Rule .0202 of this Subchapter or to the lower of the residential or soil-to-groundwater contaminant concentrations established under Rule .0511 of this Section, shall, within 30 days of the receipt of such notice, provide a copy of the notice to: the local Health Director and the chief administrative officer of each political jurisdiction in which the contamination occurs; all property owners and occupants within or contiguous to the area containing contamination; and all property owners and

occupants within or contiguous to the area where the contamination is expected to migrate. Notification shall be made by certified mail. The responsible party shall, within a time frame determined by the Department, provide the Department with proof of receipt of the copy of the notice, or of refusal by the addressee to accept delivery of the copy of the notice. If notice by certified mail to occupants under this Paragraph is impractical, the responsible party may give notice by posting a copy of the notice prominently in a manner designed to give actual notice to the occupants. If notice is made to occupants by posting, the responsible party shall provide the Department with a description of the manner in which such posted notice was given.

Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282.

15A NCAC 02L .0510 DEPARTMENTAL LISTING OF DISCHARGES OR RELEASES

To the extent feasible, the Department shall maintain in each of the Department's regional offices a list of all non-UST petroleum discharges or releases discovered and reported to the Department within the region.

Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282.

15A NCAC 02L .0511 ESTABLISHING MAXIMUM SOIL CONTAMINATION CONCENTRATIONS

For purposes of risk-based assessment and remediation for non-UST petroleum releases, refer to Rule .0411 of this Subchapter for establishment of maximum soil contamination concentrations.

Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282;

15A NCAC 02L .0512 ANALYTICAL PROCEDURES FOR SOIL SAMPLES

For purposes of risk-based assessment and remediation for non-UST petroleum releases, refer to Rule .0412 of this Subchapter for analytical procedures for soil samples.

Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282.

15A NCAC 02L .0513 ANALYTICAL PROCEDURES FOR GROUNDWATER SAMPLES

For purposes of risk-based assessment and remediation for non-UST petroleum releases, refer to Rule .0413 of this Subchapter for analytical procedures for groundwater samples.

Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282.

15A NCAC 02L .0514 REQUIRED LABORATORY CERTIFICATION

In accordance with 15A NCAC 02H .0804, laboratories are required to obtain North Carolina Division of Water Resources laboratory certification for parameters that are required to be reported to the State in compliance with the State's surface water, groundwater and pretreatment rules.

Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282.

15A NCAC 02L .0515 DISCHARGES OR RELEASES FROM OTHER SOURCES

This Section shall not relieve any person responsible for assessment or cleanup of contamination from a source other than a non-UST petroleum release from its obligation to assess and clean up contamination resulting from such discharge or releases.

Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282.

* * * * *

Notice is hereby given in accordance with G.S. 150B-21.2 that the Marine Fisheries Commission intends to amend the rules cited as 15A NCAC 03J .0103; 03R .0108, .0112.

Link to agency website pursuant to G.S. 150B-19.1(c):

<http://portal.ncdenr.org/web/mf/mfc-proposed-rules-links>

Proposed Effective Date: April 1, 2016

Public Hearing:

Date: September 9, 2015

Time: 6:00 p.m.

Location: NC Division of Marine Fisheries, 5285 Highway 70 West, Morehead City, NC 28557

Reason for Proposed Action:

15A NCAC 03J .0103 GILL NETS, SEINES, IDENTIFICATION, RESTRICTIONS

In accordance with the NC Striped Mullet Fishery Management Plan Amendment 1, proposed amendments established restrictions for using runaround or non-stationary gill nets to address user conflicts.

15A NCAC 03R .0108 MECHANICAL METHODS PROHIBITED

Proposed amendments clarify that the rule for mechanical methods for oystering only applies to internal coastal waters, not the Atlantic Ocean.

15A NCAC 03R .0112 ATTENDED GILL NET AREAS

In accordance with the NC Striped Mullet Fishery Management Plan Amendment 1, proposed amendments remove the Newport River Trawl Net Prohibited Area as a small mesh gill net attendance area, making attendance requirements consistent with other similar areas of the state.

Comments may be submitted to: Catherine Blum, P.O. Box

769, Morehead City, NC 28557, phone 252-808-8014, fax 252-726-0254, email Catherine.Blum@ncdenr.gov

Comment period ends: October 2, 2015

Procedure for Subjecting a Proposed Rule to

Legislative Review: If an objection is not resolved prior to the adoption of the Rule, a person may also submit written objections to the Rules Review Commission after the adoption of the Rule. If the Rules Review Commission receives written and signed objections after the adoption of the Rule in accordance with G.S. 150B-21.3(b2) from 10 or more persons clearly requesting review by the

legislature and the Rules Review Commission approves the Rule, the Rule will become effective as provided in G.S. 150B-21.3(b1). The Commission will receive written objections until 5:00 p.m. on the day following the day the Commission approves the Rule. The Commission will receive those objections by mail, delivery service, hand delivery, or facsimile transmission. If you have any further questions concerning the submission of objections to the Commission, please call a Commission staff attorney at 919-431-3000.

Fiscal impact (check all that apply).

State funds affected

Environmental permitting of DOT affected

Analysis submitted to Board of

Transportation Local funds affected

Substantial economic impact

(≥\$1,000,000) Approved by OSBM

No fiscal note required by G.S. 150B-21.4

CHAPTER 03 - MARINE FISHERIES

SUBCHAPTER 03J - NETS, POTS, DREDGES,

AND

OTHER FISHING DEVICES SECTION

.0100 - NET RULES, GENERAL

15A NCAC 03J .0103 GILL NETS, SEINES, IDENTIFICATION, RESTRICTIONS

(a) It is unlawful to use gill nets:

- (1) ~~With~~ with a mesh length less than ~~2-½~~ two and one-half inches.
- (2) ~~In internal waters~~ in Internal Coastal Waters from April 15 through December 15, with a mesh length ~~5-~~ five inches or greater and less than ~~5-½~~ five and one-half inches.

(b) The Fisheries Director may, by proclamation, limit or prohibit the use of gill nets or seines in ~~coastal waters,~~ Coastal Fishing Waters, or any portion thereof, or impose any or all of the following restrictions on gill net or seine fishing operations:

- (1) ~~Specify area.~~
- (2) ~~Specify season.~~
- (3) ~~Specify gill net mesh length.~~
- (4) ~~Specify means/methods.~~
- (5) ~~Specify net number and length.~~
 - (1) specify time;
 - (2) specify area;
 - (3) specify means and methods, including:
 - (A) gill net mesh length, but the maximum length specified shall not exceed six and one-half inches in Internal Coastal Waters; and
 - (B) net number and length, but for gill nets with a mesh length four inches or greater, the maximum length specified shall not exceed 2,000 yards per vessel in Internal Coastal Waters regardless of the number of individuals involved; and

**Hearing Officer's Opening Statement
Raleigh, North Carolina**

August 26, 2015

Carin Kromm: Hello, thank you for coming today. My name is Carin Kromm and I am representing the Division of Waste Management, UST Section. We are holding this public hearing today to get your input on the proposed rule 15A NCAC 02L .0500 Risk-Based Assessment and Corrective Action for Non-UST Petroleum Releases. The proposed rule will make non-UST releases more consistent with the UST rules. Public notice was posted in the North Carolina Register on August 3, 2015 and is available on the DWMUST Section Corrective Action Branch website under the "What's New" section for review.

Everyone here today is invited to comment on the proposed rule. You may speak here today by signing the sheet located in the back of the room, provide comments in writing to the address provided in the public notice or both. If you didn't want to speak today but wanted to submit written comments must be submitted prior to October 2, 2015 which is the end of the comment period.

Since only one person has signed up to speak, we don't need to limit time to five minutes. Responses to comments will be provided in writing. If you would like a copy of the response to comments, please leave your email address on the signup sheet at the back of the room.

Ms. Linda Smith of the UST Section has prepared a brief presentation that outlines the proposed rule for your information.

Linda Smith: The intent of this rule making is to make these rules consistent with the UST petroleum releases. We needed to make a separate section because there are federal regulations and other statutory regulations that are required for petroleum releases that are not required for non-UST petroleum releases. In addition, financial responsibility, taxes and fees are also required petroleum USTs that would not be required for non-UST petroleum releases. Definitions were changed to pull out all references to federal regulations. Change in languages due to changes in the statute to our definition of "immediate" for initial response actions and also make references to the way we used to do initial response if we need to do it. Requirements for LSAs will not change very much but there is more clarification on what an LSA should include, little bit of clarification under no. 5 about what we want to see. Rule references were changed in the section describing the High, Intermediate, and Low risk designations as well as the risk reclassification section. Clarification of public notice which is required and language for land use restriction which we do not have authorization for, but we included it so that we don't have to go through rule making again. We had to change the Departmental Listing to pull the references to the UST Federal requirements.

Any questions? Do you wish to go back to any slides?

Bill Walsh of Catlin Engineers and Scientists: Is this the latest version of the rule because there are some changes to .0506 Discharge or Release Classifications.

Linda Smith: The EMC and the OAH made some small tweaks to the document.

Mr. Walsh: There appears to be an incorrect reference in Section .0506 line 3 which refers to 15A NCAC 02L .0504(3). The reference to (3) appears to be incorrect.

Ms. Smith: I agree that it might be the wrong reference.

Any other questions?

Carin Kromm: Ok, our first speaker will be Ms. Jones:

Cathy Calle Jones: I will not take 5 minutes. Hi I'm Cathy Cralle Jones, an attorney for the law firm of Bryan Brice Jr. We represent small landowners and small businesses. I've worked with Bryan for 10 years, and I can't tell you the number of regulatory gymnastics we have had to go through. I know that I am preaching to the choir. To make these rules work as they were, was ridiculous. We had people that were praying for releases from USTs so that they could have comingled plumes. I brought Sue Smith who is the poster child of a homeowner with a release from an AST. It was located in the crawl space but because four inches were not underground, it was considered to be an AST. Her neighbor had a very similar situation but had a UST and was able to close her UST with a Notice of Residual Petroleum. The first DENR folks on the site were very sympathetic with her but told her that there was nothing that they could do to help her. Sue reported this in 2012 and had to put her move to a retirement community on hold so that if she needed to, she would have the money to do the cleanup. I give hearty support and thank you to all the folks who have worked out all the small details.

Is there a process for which active cases will get reviewed and get closed out?

Bob Davies: There will likely be a small amount of RPs/Consultants that will request that we look at their sites to consider closure under the new risk based closure. We don't have a plan to go through all the active sites and begin closure. It will most likely happen by request of the RP.

Cathy Calle Jones: What is the timeline for adoption moving forward?

Linda Smith: If there are no hiccups, we are expecting January 2016 or maybe March 2016. It needs to go through Rules Review Committee. We are anticipating that it will go through.

Simon List: What is the state's position on addressing of releases pending these new rules? Carin, what do you think? What do I tell my clients?

Linda Culpepper: I will respond to this one for Carin. We cannot direct you not to do work. That should help you make a decision on how to proceed.

Audience Member: Is there going to be a TF for AST or a way to get into the UST TF?

Linda Smith: Due to the federal requirement for financial assurance for USTs, AST owners/RPs cannot "piggyback" onto the Commercial TF. It would require a legislative change.

Carin Kromm: Any other Questions? No, then meeting adjourned at 14:00.

Fiscal Impacts of Proposed Rules

Rule Topic:	Expansion of Underground Storage Tank (UST) Risk-based Cleanup Standard to all Petroleum Releases
Rule Citation:	<p>15A NCAC 02L .0501 – Purpose and Scope</p> <p>15A NCAC 02L .0502 – Definitions</p> <p>15A NCAC 02L .0503 – Rule Application</p> <p>15A NCAC 02L .0504 – Required Initial Response and Abatement Actions by Responsible Party</p> <p>15A NCAC 02L .0505 – Requirements for Limited Site Assessment</p> <p>15A NCAC 02L .0506 – Discharge or Release Classifications</p> <p>15A NCAC 02L .0507 – Reclassification of Risk Levels</p> <p>15A NCAC 02L .0508 – Assessment and Remediation Procedures</p> <p>15A NCAC 02L .0509 – Notification Requirements</p> <p>15A NCAC 02L .0510 – Departmental Listing of Discharges or Releases</p> <p>15A NCAC 02L .0511 – Establishing Maximum Soil Contamination Concentrations</p> <p>15A NCAC 02L .0512 – Analytical Procedures for Soil Samples</p> <p>15A NCAC 02L .0513 – Analytical Procedures for Groundwater Samples</p> <p>15A NCAC 02L .0514 – Required Laboratory Certification</p> <p>15A NCAC 02L .0515 – Discharges or Releases from Other Sources</p>
Agency:	Environmental Management Commission
Agency Contact:	<p>Linda L. Smith, (919) 707-8150</p> <p>Art Barnhardt, (919) 707-8263</p> <p>DENR Division of Waste Management</p> <p>1637 Mail Service Center</p> <p>Raleigh, NC 27699-1637</p>
Impact Summary:	<p>Federal government: Yes</p> <p>State government: Yes</p> <p>Local government: Yes</p> <p>Substantial impact: No</p>
Authority:	§ 143-215. Effluent standards or limitations.
Necessity:	The Division of Waste Management has taken comments from stakeholders stating that use of risk-based remediation for releases from petroleum USTs is inconsistent and should include all petroleum releases. This change can be protective of human health and the environment and will reduce costs to some stakeholders.

I. Summary

The Division of Waste Management has taken comments from stakeholders who have stated it is inconsistent to use risk-based remediation for petroleum UST contamination, but not for petroleum non-UST contamination. The agency expects this change would be protective of human health and the environment while reducing costs to some stakeholders.

These rule additions are contained in 15A NCAC 02L .0501 through 15A NCAC 02L .0515 – see Appendix A.

The rule changes will affect non-UST petroleum releases. The cost saving of the rule changes is estimated to be \$644,000 per year.

The proposed effective date is January 2, 2016.

II. Introduction and Purpose of Rule Change(s)

Comments from stakeholders revealed that there is an inconsistency in using risk-based remediation for petroleum UST contamination, but not for petroleum non-UST contamination. As a result, the agency is proposing to amend its rules (15A NCAC 02L .0501 through 15A NCAC 02L .0515).

Under the authority of **§143B-282**, the Environmental Management Commission is directed to adopt rules for the protection of the land and the waters over which this State has jurisdiction from pollution by oil, oil products and oil by-products.

The cleanup of petroleum releases is considered the prevention and abatement of pollution and is required to progress to completion to protect groundwater quality, human health and the environment. The requirements are set through rules 15A NCAC 02L .0103 POLICY and .0106 CORRECTIVE ACTION, as well as the rest of the 02L rules (“other appropriate instrument”).

The rule change would provide a remediation process for non-UST petroleum contamination that is protective of human health and the environment as well as consistent with the remediation process used by the petroleum UST program. The rule change would enhance the current action level cleanup goals by including risk-based cleanup goals. The rule is expected to facilitate quicker and less costly remediation of petroleum contamination.

The difference between the remediation for a non-UST petroleum contamination incident under the current versus the future requirements would be the cleanup end points. Please see Figures 1 through 3 in Appendix B for flowcharts of the requirements under the proposed rules, the current rules, and the UST program rules, respectively. Under the proposed flow chart, there would be a reduction in remediation requires as more opportunities for unnecessary requirements to be skipped would be afforded and the remediation to be completed sooner. This would result in a benefit to the responsible party (person causing or controlling a petroleum release).

The remediation of a non-UST petroleum contamination includes the following actions:

1. *Discovery*;
2. *Initial Response Actions*:
 - a. Stop release,
 - b. Report, and
 - c. Identify/mitigate hazards (this may include supplying alternate water, removing/capturing liquids, and/or other necessary actions);
3. *Initial Abatement Actions* – if necessary:
 - a. Determine and eliminate source of release,
 - b. Control/remove free product,
 - c. Excavate or treat in place contaminated soils, and
 - d. Submit Initial Abatement Action Report (20-Day Report -.0504 (2)) – At this point a report containing analysis of contaminated soils is evaluated to determine one of three outcomes:
 - i. cleanup until action levels are achieved,
 - ii. cleanup until the proposed risk-based levels are achieved, or
 - iii. the site remains open and additional assessment and cleanup is required;
4. *Comprehensive Site Assessment* or the proposed risk-based *Limited Site Assessment* – If the soil is still contaminated, then:
 - Under the current rule, a Comprehensive Site Assessment is required, or
 - Under the proposed risk-based rules, a Limited Site Assessment is required.
5. Corrective Action Plan/Soil Cleanup Plan – Incidents not closed by this point will likely require continuing remediation, causing no appreciable change in future requirements;
6. Soil Cleanup Report; and
7. No Further Action.

III. Costs

Risk-based cleanup will allow some non-UST petroleum contamination incidents to be closed earlier in the remediation process.

Tracking information for Non-UST petroleum releases is presented in the table below and shows no apparent trends. The cost estimates will be based on 2013 tracking information due to improved data quality and as the largest value to show the most impact on cost changes. It is estimated that there are 283 non-UST petroleum releases/incidents per year (10 will be high risk), with 145 of those incidents (more than 50%) closed/cleaned up per year under current requirements, leaving 138 of those incidents needing further action.

Table 1. Historic Data for Non-UST Incidents

Calendar Year	Non-UST Incidents Reported	Non-UST Incidents Still Active
2014	281	
2013	283	138
2012	224	
2011	253	
2010	270	

In analyzing the costs of the proposed rule change, the agency made the following assumptions:

- Costs would stay close to 2010 levels, based on the fact that there has been no change in remediation costs for the petroleum UST program since 2010. The analysis further assumes that the costs would stay constant in the following few years given the small likelihood or any significant change based on historical costs.
- A Comprehensive Site Assessment/Soil Assessment Report, is estimated to cost about \$25,000, based on best professional judgement.
- A Limited Site Assessment is estimated to cost \$6,599, based on information from the 2010 Reasonable Rates document (a set of rate/cost documents developed by the Underground Storage Tank Program for the remediation of petroleum contamination).¹
- Based on the two points above, the estimated cost difference between a Comprehensive Site Assessment/Soil Assessment Report and a Limited Site Assessment is a savings of approximately \$18,400 per incident.
- Costs for the remediation and cleanup of non-UST petroleum releases are borne by the responsible party under both current rule and the proposed rule. There is no statutory provision for a trust fund or other fee programs at this time; however, legislation has been proposed that could address these issues.
- Future incidents would normally involve gasoline and/or diesel contaminated soils.
- Twenty-five % of the 138 incidents per year (or 35 incidents) would benefit from the proposed rules and would be closed under the proposed risk-based standards per year based on best professional judgment.
- Based on historic data, the analysis assumes that 51.2% of the sites would be able to close early and not require risk-based action.
- No growth in the number of incidents per year in the next five years. As previously stated, no recent discernable upward or downward trend in frequency of incident occurrences can be established by historical data tracking.
- Incidents that could close under risk-based standards would likely not proceed to the Comprehensive Site Assessment and would require none to minimal remediation as

¹ NC Department of Environment and Natural Resources. Division of Waste Management. Underground Storage Tank Section. Reasonable Rate Documents. <http://portal.ncdenr.org/web/wm/ust/rrd>

part of the Corrective Action Plan due to lack of significant contamination, thus saving the responsible parties the related costs.

- The share of future incidents were the state, federal government, or local government are the responsible party would stay the same as that in 2010.

Cost Savings to Responsible Parties:

Assuming that 35 incidents would be closed after the third step shown above as a result of the proposed rules, then the responsible parties would save \$18,400 per incident in costs related to performing a Comprehensive Site Assessment. Therefore, the total annual cost avoided by the responsible parties as a result of the rules is estimated to be around \$644,000.

Also included in this cost savings are sites that would arise from State, Local, and Federal incidents, as indicated in Table 2, using the same site/cost ratio as above.

Table 2. Estimated Number of Future Incidents by Type of Government Party

Type of Affected Party	5-year Total Number of Incidents	Closed (would not need risk-based action)	Open	Possibly closed with Risk based program (approx. 25% of Open)	5-year Cost Savings (\$18,400/incident)
State	31	16	15	4	\$73,600
Local	26	13	13	3	\$55,200
Federal	61	31	30	7	\$128,800
Total	121	62	59	14	\$257,600

The annualized total cost savings for state/federal/local incidents would be about \$52,000 out of the total estimate of \$644,000; therefore, the share of savings incurred by private parties would be close to \$592,000.

Other savings, albeit difficult to calculate in terms of dollars, would be the time not expended by the responsible party and DENR managing and tracking the cleanup measures that include site data collection, evaluation, and public notification. An estimate of time saved by DENR staff in managing these sites can be calculated best by understanding that while they remain open, staff will spend at least one 8-hour day per year on each site reviewing data and/or reports. Therefore, assuming 35 affected sites times 8 hours/site results in 280 staff hours saved or about 0.13 of an FTE (280 hours/ total FTE 2,080 hours per year). The average salary with benefits for a hydrogeologist to manage these sites is \$76,535. Therefore, the value of the DENR staff time saved as a result of this rule would be close to \$10,300 (\$76,535 times 0.13 FTE saved).

Public notification would still be required in all cases where sites are closed with petroleum soil or groundwater contamination above unrestricted use standards. There should be no negative impact resulting in less notification of the public from the proposed rule.

IV. Benefits

Health & Environmental Benefits – The proposed rules would enable the implementing agency by providing practical rule-based options to achieve cleanup and manage risk at a larger percentage of the petroleum release sites, thus affecting a higher level of protection for both public health and the environment. For instance, by quantifying the risk at sites, identifying and closing the low risk sites, the limited staff resources DENR has to focus on higher risk sites would proportionally increase. By keeping focus on higher risk sites DENR would prevent more human health exposures and environmental degradation where it benefits the most. Similar benefits were achieved when the Petroleum UST Risk-Based rules were promulgated.

Regulated Parties – The proposed rules would benefit the Regulated Party by providing practical rule-based options to achieve cleanup with reduced time and material while complying with State standards strict enough to be protective of health and the environment. The cost savings is estimated in the section above.

State/Federal/Local Governments – The rules would provide a cost saving for these entities, as shown in Table 2.

Implementing Agency (The UST Section of the Division of Waste Management of the Department of Environment and Natural Resources) – The rules would enable the implementing agency by providing practical rule-based options to achieve cleanup and manage risk at a larger percentage of the petroleum release sites. This new set of rules would provide the agency's incident management program with mechanisms that would increase efficiency by simplifying site management and the path to site closure. As stated above in the Health & Environmental Benefits section, the low risk sites would close early in the regulatory process. The remaining higher risk sites would proportionally receive more staff attention as staff saves times on sites that would not be eligible for risk-based actions (see value of staff saving computed in the previous section). Managing these type sites is where DENR would be best leveraged in the goals of protecting human health and the environment.

1
2 **CHAPTER 02 - ENVIRONMENTAL MANAGEMENT**

3
4 **SUBCHAPTER 02L - GROUNDWATER CLASSIFICATION AND STANDARDS**

5
6 **SECTION .0500 – RISK-BASED ASSESSMENT AND CORRECTIVE ACTION FOR NON-UST**
7 **PETROLEUM RELEASES**

8
9 **15A NCAC 02L .0501 PURPOSE AND SCOPE**

10 (a) The purpose of this Section is to establish procedures for risk-based assessment and corrective action sufficient
11 to:

12 (1) protect human health and the environment;

13 (2) abate and control contamination of the waters of the State as deemed necessary to protect human
14 health and the environment;

15 (3) permit management of the State's groundwaters to protect their designated current usage and
16 potential future uses;

17 (4) provide for anticipated future uses of the State's groundwater;

18 (5) recognize the diversity of contaminants, the State's geology and the characteristics of each individual
19 site; and

20 (6) accomplish these goals in a cost-efficient manner to assure the best use of the limited resources
21 available to address groundwater pollution within the State.

22 (b) The applicable portions of Section .0100 not specifically excluded apply to this Section.

23
24 Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282.

1 **15A NCAC 02L .0502 DEFINITIONS**

2 The definitions as set out in Rule .0102 of this Subchapter apply to this Section, except that the following definitions
3 apply throughout this Section:

4 (1) "Aboveground storage tank" or "AST" means any one or a combination of tanks (including
5 underground pipes connected thereto) that is used to contain an accumulation of petroleum.

6 (2) "AST system" means an aboveground storage tank, connected underground piping, underground
7 ancillary equipment, and containment system, if any".

8 (3) "Discharge" means, but is not limited to, any emission, spillage, leakage, pumping, pouring,
9 emptying, or dumping of oil into groundwater or surface water or upon land in such proximity to
10 such water that it is likely to reach the water and any discharge upon land which is intentional,
11 knowing or willful.

12 (4) "Operator" means any person in control of, or having responsibility for the daily operation of the
13 AST system.

14 (5) "Owner" means any person who owns a petroleum aboveground storage tank or other non-UST
15 petroleum tank, stationary or mobile, used for storage, use, dispensing, or transport.

16 (6) "Person" means an individual, trust, firm, joint stock company, Federal agency, corporation, state,
17 municipality, commission, political subdivision of a state, or any interstate body. "Person" also
18 includes a consortium, a joint venture, a commercial entity, and the United States Government.

19 (7) "Petroleum" is defined in G.S. 143-215.94A(10).

20 (8) "Release" means any spilling, leaking, emitting, discharging, escaping, or leaching or disposing into
21 groundwater, surface water, or surface or subsurface soils.

22 (9) "Tank" is a device used to contain an accumulation of petroleum and constructed of non-earthen
23 materials (e.g., concrete, steel, plastic) that provides structural support.

24
25 Authority G.S. 143-212(4); 143-215.2; 143-215.3(a)(1); 143-215.77; 143B-282.

1 **15A NCAC 02L .0503 RULE APPLICATION**

2 This Section applies to any non-UST petroleum discharge. The requirements of this Section shall apply to the owner
3 and operator of a petroleum aboveground storage tank or other non-UST petroleum tank, stationary or mobile, from
4 which a discharge or release occurred and any person determined to be responsible for assessment and cleanup of a
5 discharge or release from a non-UST petroleum source, including any person who has conducted or controlled an
6 activity which results in the discharge or release of petroleum or petroleum products (as defined in G.S. 143-
7 215.94A(10)) to the groundwaters of the State, or in proximity thereto; these persons shall be collectively referred to
8 for purposes of this Section as the "responsible party".

9

10 Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282.

1 **15A NCAC 02L .0504 REQUIRED INITIAL RESPONSE AND ABATEMENT ACTIONS BY**

2 **RESPONSIBLE PARTY**

3 A responsible party shall:

- 4 (1) take actions to prevent any further discharge or release of petroleum from the non-UST petroleum
5 source; identify and mitigate any fire, explosion or vapor hazard; and report the release within 24
6 hours, in compliance with G.S. 143-215.83(a), 84(a), and 85(b);
- 7 (2) perform initial abatement actions to measure for the presence of a release where contamination is
8 most likely to be present and to confirm the precise source of the release; to investigate to determine
9 the possible presence of free product and to begin free product removal; and to continue to monitor
10 and mitigate any additional fire, vapor, or explosion hazards posed by vapors or by free product;
11 and submit a report within 20 days after release confirmation summarizing these initial abatement
12 actions;
- 13 (3) remove contaminated soil which would act as continuing source of contamination to groundwater.
14 For a new release, if initial abatement actions involving control and removal of contaminated
15 materials can be initiated within 48 hours from discovery; before contaminated materials have the
16 opportunity to impact groundwater; and if remaining soils contain contaminants with levels less
17 than the TPH action level or less than either the soil-to-groundwater or residential MSCCS
18 (whichever is lowest); no further action is necessary. ~~If the abatement actions cannot be initiated~~
19 ~~within 48 hours of discovery and petroleum contaminated soil concentrations less than TPH action~~
20 ~~level cannot be achieved, conduct activities in the subsequent items of this Rule. If the abatement~~
21 ~~actions cannot be initiated within 48 hours of discovery conduct activities in the subsequent items~~
22 ~~of this Rule. If soil concentrations remain above the Total Petroleum Hydrocarbon action level~~
23 ~~conduct activities in the subsequent items of this Rule.~~
- 24 (4) conduct initial site assessment, assembling information about the site and the nature of the release,
25 including but not necessarily limited to the following:
- 26 (a) Site history and site characterization, including but not limited to, data on nature and
27 estimated quantity of release and data from available sources and site investigations
28 concerning surrounding populations, water quality, use, and approximate locations of
29 wells, surface water bodies, and subsurface structures potentially effected by the release,
30 subsurface soil conditions, locations of subsurface utilities, climatological conditions, and
31 landuse;
- 32 (b) Results of free product investigations and free product removal, if applicable;
- 33 (c) Results of groundwater and surface water investigations, if applicable;
- 34 (d) Summary of initial response and abatement actions; and submit this information in the
35 report required under Item (5) of this Rule.
- 36 (5) submit within 90 days of the discovery of the discharge or release an initial assessment and
37 abatement report containing the site characterization information required in Item (4) of this Rule;

1 soil assessment information sufficient to show that remaining unsaturated soil in the side walls and
2 at the base of the excavation does not contain contaminant levels which exceed either the "soil-to-
3 groundwater" or the residential maximum soil contaminant concentrations established by the
4 Department pursuant to Rule .0511 of this Section, whichever is lower; and documentation to show
5 that neither bedrock nor groundwater was encountered in the excavation (or if groundwater was
6 encountered, that contaminant concentrations in groundwater were equal to or less than the
7 groundwater quality standards established in Rule .0202 of this Subchapter). If such showing is
8 made, the discharge or release shall be classified as low risk by the Department.

9
10 Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282.

1 **15A NCAC 02L .0505 REQUIREMENTS FOR LIMITED SITE ASSESSMENT**

2 If the required showing cannot be made under Rule .0504 of this Section, submit within 120 days of the discovery of
3 the discharge or release, or within such other greater time limit approved by the Department, a report containing
4 information needed by the Department to classify the level of risk to human health and the environment posed by a
5 discharge or release under Rule .0506 of this Section. Such report shall include, at a minimum:

6 (1) a location map, based on a USGS topographic map, showing the radius of 1500 feet from the source
7 area of a confirmed release or discharge and depicting all water supply wells, surface waters and
8 designated wellhead protection areas as defined in 42 U.S.C. 300h-7(e) within the 1500-foot radius.
9 For purposes of this Section, source area means point of release or discharge from the non-UST
10 petroleum source or, if the point of release cannot be determined precisely, source area is defined
11 as the area of highest contaminant concentrations;

12 (2) a determination of whether the source area of the discharge or release is within a designated wellhead
13 protection area as defined in 42 U.S.C. 300h-7(e);

14 (3) if the discharge or release is in the Coastal Plain physiographic region as designated on a map
15 entitled "Geology of North Carolina" published by the Department in 1985, a determination of
16 whether the source area of the discharge or release is located in an area in which there is recharge
17 to an unconfined or semi-confined deeper aquifer which is being used or may be used as a source
18 of drinking water;

19 (4) a determination of whether vapors from the discharge or release pose a threat of explosion due to
20 the accumulation of vapors in a confined space, pose a risk to public health from exposure, or pose
21 any other serious threat to public health, public safety or the environment;

22 (5) scaled site map(s) showing the location of the following which are on or adjacent to the property
23 where the source is located: site boundaries, roads, buildings, basements, floor and storm drains,
24 subsurface utilities, septic tanks and leach fields, underground and aboveground storage tank
25 systems, monitoring wells, water supply wells, surface water bodies and other drainage features,
26 borings and the sampling points;

27 (6) the results from a limited site assessment which shall include the following actions:

28 (a) Determine the presence, the lateral and vertical extent, and the maximum concentration
29 levels of soil and, if possible, groundwater contamination and free product accumulations.

30 (b) Install as many monitoring wells constructed in accordance with 15A NCAC 02C, within
31 the area of maximum soil or groundwater contamination as needed to determine the
32 groundwater flow direction and maximum concentrations of dissolved groundwater
33 contaminants or accumulations of free product, to include at a minimum three monitoring
34 wells, unless a greater or lesser number are specified for a particular site by the Department;
35 during well construction, collect and analyze soil samples, which should represent the
36 suspected highest contaminant-level locations by exhibiting visible contamination or
37 elevated levels of volatile organic compounds, from successive locations at five-foot depth

1 intervals in the boreholes of each monitoring well within the unsaturated zone; collect
2 potentiometric data from each monitoring well; and collect and analyze groundwater or
3 measure the amount of free product, if present, in each monitoring well;

4 (7) the availability of public water supplies and the identification of properties served by the public
5 water supplies within 1500 feet of the source area of a confirmed discharge or release;

6 (8) the land use, including zoning if applicable, within 1500 feet of the source area of a confirmed
7 discharge or release;

8 (9) a discussion of site specific conditions or possible actions which could result in lowering the risk
9 classification assigned to the release. Such discussion shall be based on information known or
10 required to be obtained under this Paragraph; and

11 (10) names and current addresses of all responsible parties for all petroleum sources for which a
12 discharge or release is confirmed, the owner(s) of the land upon which such petroleum sources are
13 located, and all potentially affected real property owners. Documentation of ownership of ASTs or
14 other sources and of the property upon which a source is located shall be provided. When
15 considering a request from a responsible party for additional time to submit the report, the Division
16 shall consider the extent to which the request for additional time is due to factors outside of the
17 control of the responsible party, the previous history of the person submitting the report in
18 complying with deadlines established under the Commission's rules, the technical complications
19 associated with assessing the extent of contamination at the site or identifying potential receptors,
20 and the necessity for action to eliminate an imminent threat to public health or the environment.

21
22 Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282.

1 **15A NCAC 02L .0506 DISCHARGE OR RELEASE CLASSIFICATIONS**

2 The Department shall classify the risk of each known discharge or release as high, intermediate or low risk unless the
3 discharge or release has been classified under Rule .0504(3) of this Section. For purposes of this Section:

4 (1) "High risk" means that:

- 5 (a) a water supply well, including one used for non-drinking purposes, has been contaminated
6 by the release or discharge;
7 (b) a water supply well used for drinking water is located within 1000 feet of the source area
8 of a confirmed discharge or release;
9 (c) a water supply well not used for drinking water is located within 250 feet of the source area
10 of a confirmed discharge or release;
11 (d) the groundwater within 500 feet of the source area of a confirmed discharge or release has
12 the potential for future use in that there is no source of water supply other than the
13 groundwater;
14 (e) the vapors from the discharge or release pose a serious threat of explosion due to
15 accumulation of the vapors in a confined space or pose a risk to public health from
16 exposure; or
17 (f) the discharge or release poses an imminent danger to public health, public safety, or the
18 environment.

19 (2) "Intermediate risk" means that:

- 20 (a) surface water is located within 500 feet of the source area of a confirmed discharge or
21 release and the maximum groundwater contaminant concentration exceeds the applicable
22 surface water quality standards and criteria found in 15A NCAC 02B .0200 by a factor of
23 10;
24 (b) in the Coastal Plain physiographic region as designated on a map entitled "Geology of
25 North Carolina" published by the Department in 1985, the source area of a confirmed
26 discharge or release is located in an area in which there is recharge to an unconfined or
27 semi-confined deeper aquifer which the Department determines is being used or may be
28 used as a source of drinking water;
29 (c) the source area of a confirmed discharge or release is within a designated wellhead
30 protection area, as defined in 42 U.S.C. 300h-7(e);
31 (d) the levels of groundwater contamination for any contaminant except ethylene dibromide,
32 benzene and alkane and aromatic carbon fraction classes exceed 50 percent of the solubility
33 of the contaminant at 25 degrees Celsius or 1,000 times the groundwater standard or interim
34 standard established in Rule .0202 of this Subchapter, whichever is lower; or
35 (e) the levels of groundwater contamination for ethylene dibromide and benzene exceed 1,000
36 times the federal drinking water standard set out in 40 CFR 141.

37 (3) "Low risk" means that:

1 (a) the risk posed does not fall within the high or intermediate risk categories; or

2 (b) based on review of site-specific information, limited assessment or interim corrective
3 actions, the Department determines that the discharge or release poses no significant risk
4 to human health or the environment.

5 If the criteria for more than one risk category applies, the discharge or release shall be classified at the highest risk
6 level identified in Rule .0507 of this Section.

7
8 Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282.

1 **15A NCAC 02L .0507 RECLASSIFICATION OF RISK LEVELS**

2 (a) The Department may reclassify the risk posed by a release if warranted by further information concerning the
3 potential exposure of receptors to the discharge or release or upon receipt of new information concerning changed
4 conditions at the site. After initial classification of the discharge or release, the Department may require limited
5 assessment, interim corrective action, or other actions which the Department believes will result in a lower risk
6 classification. It shall be a continuing obligation of each responsible party to notify the Department of any changes
7 that might affect the level of risk assigned to a discharge or release by the Department if the change is known or should
8 be known by the responsible party. Such changes shall include, but shall not be limited to, changes in zoning of real
9 property, use of real property or the use of groundwater that has been contaminated or is expected to be contaminated
10 by the discharge or release, if such change could cause the Department to reclassify the risk.

11 (b) If the risk posed by a discharge or release is determined by the Department to be high risk, the responsible party
12 shall comply with the assessment and cleanup requirements of Rule .0106(c), (g) and (h) of this Subchapter. The goal
13 of any required corrective action for groundwater contamination shall be restoration to the level of the groundwater
14 standards set forth in Rule .0202 of this Subchapter, or as closely thereto as is economically and technologically
15 feasible. In any corrective action plan submitted pursuant to this Paragraph, natural attenuation shall be used to the
16 maximum extent possible. If the responsible party demonstrates that natural attenuation prevents the further migration
17 of the plume, the Department may approve a groundwater monitoring plan.

18 (c) If the risk posed by a discharge or release is determined by the Department to be an intermediate risk, the
19 responsible party shall comply with the assessment requirements of Rule .0106(c) and (g) of this Subchapter. As part
20 of the comprehensive site assessment, the responsible party shall evaluate, based on site specific conditions, whether
21 the release poses a significant risk to human health or the environment. If the Department determines, based on the
22 site-specific conditions, that the discharge or release does not pose a significant threat to human health or the
23 environment, the site shall be reclassified as a low risk site. If the site is not reclassified, the responsible party shall,
24 at the direction of the Department, submit a groundwater monitoring plan or a corrective action plan, or a combination
25 thereof, meeting the cleanup standards of this Paragraph and containing the information required in Rule .0106(h) of
26 this Subchapter. Discharges or releases which are classified as intermediate risk shall be remediated, at a minimum,
27 to a cleanup level of 50 percent of the solubility of the contaminant at 25 degrees Celsius or 1,000 times the
28 groundwater standard or interim standard established in Rule .0202 of this Subchapter, whichever is lower for any
29 groundwater contaminant except ethylene dibromide, benzene and alkane and aromatic carbon fraction classes.
30 Ethylene dibromide and benzene shall be remediated to a cleanup level of 1,000 times the federal drinking water
31 standard set out in 40 CFR 141. Additionally, if a corrective action plan or groundwater monitoring plan is required
32 under this Paragraph, the responsible party shall demonstrate that the groundwater cleanup levels are sufficient to
33 prevent a violation of:

34 (1) the rules contained in 15A NCAC 02B;

35 (2) the standards contained in Rule .0202 of this Subchapter in a deep aquifer as described in Rule
36 .0506(2)(b) of this Section; and

1 (3) the standards contained in Rule .0202 of this Subchapter at a location no closer than one year time
2 of travel upgradient of a well within a designated wellhead protection area, based on travel time and
3 the natural attenuation capacity of the subsurface materials or on a physical barrier to groundwater
4 migration that exists or will be installed by the person making the request.

5 In any corrective action plan submitted pursuant to this Paragraph, natural attenuation shall be used to the maximum
6 extent possible.

7 (d) If the risk posed by a discharge or release is determined by the Department to be a low risk, the Department shall
8 notify the responsible party that no cleanup, no further cleanup or no further action will be required by the Department,
9 unless the Department later determines that the discharge or release poses an unacceptable risk or a potentially
10 unacceptable risk to human health or the environment. No notification will be issued pursuant to this Paragraph,
11 however, until the responsible party has completed soil remediation pursuant to Rule .0508 of this Section or as closely
12 thereto as economically or technologically feasible; has submitted proof of public notification and has recorded any
13 land-use restriction(s), if required; and paid any applicable statutorily authorized fees. The issuance by the Department
14 of a notification under this Paragraph shall not affect any private right of action by any party which may be affected
15 by the contamination.

16
17 Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282.

1 **15A NCAC 02L .0508 ASSESSMENT AND REMEDIATION PROCEDURES**

2 Assessment and remediation of soil contamination shall be addressed as follows:

- 3 (1) At the time that the Department determines the risk posed by the discharge or release, the
4 Department shall also determine, based on site-specific information, whether the site is "residential"
5 or "industrial/commercial." For purposes of this Section, a site is presumed residential, but may be
6 classified as industrial/commercial if the Department determines based on site-specific information
7 that exposure to the soil contamination is limited in time due to the use of the site and does not
8 involve exposure to children. For purposes of this Item, "site" means both the property upon which
9 the discharge or release has occurred and any property upon which soil has been affected by the
10 discharge or release.
- 11 (2) The responsible party shall submit a report to the Department assessing the vertical and horizontal
12 extent of soil contamination.
- 13 (3) For a discharge or release classified by the Department as low risk, the responsible party shall submit
14 a report demonstrating that soil contamination has been remediated to either the residential or
15 industrial/commercial maximum soil contaminant concentration established by the Department
16 pursuant to Rule .0511 of this Section, whichever is applicable.
- 17 (4) For a discharge or release classified by the Department as high or intermediate risk, the responsible
18 party shall submit a report demonstrating that soil contamination has been remediated to the lower
19 of:
- 20 (a) the residential or industrial/commercial maximum soil contaminant concentration,
21 whichever is applicable, that has been established by the Department pursuant to Rule
22 .0511 of this Section; or
- 23 (b) the "soil-to-groundwater" maximum soil contaminant concentration that has been
24 established by the Department pursuant to Rule .0511 of this Section.

25
26 Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282.

1 **15A NCAC 02L .0509 NOTIFICATION REQUIREMENTS**

2 (a) A responsible party who submits a corrective action plan which proposes natural attenuation or to cleanup
3 groundwater contamination to a standard other than a standard or interim standard established in Rule .0202 of this
4 Subchapter, or to cleanup soil other than to the standard for residential use or soil-to-groundwater contaminant
5 concentration established pursuant to this Section, whichever is lowest, shall give notice to: the local Health Director
6 and the chief administrative officer of each political jurisdiction in which the contamination occurs; all property
7 owners and occupants within or contiguous to the area containing the contamination; and all property owners and
8 occupants within or contiguous to the area where the contamination is expected to migrate. Such notice shall describe
9 the nature of the plan and the reasons supporting it. Notification shall be made by certified mail concurrent with the
10 submittal of the corrective action plan. Approval of the corrective action plan by the Department shall be postponed
11 for a period of 30 days following receipt of the request so that the Department may consider comments submitted.
12 The responsible party shall, within a time frame determined by the Department to be sufficient, provide the Department
13 with a copy of the notice and proof of receipt of each required notice, or of refusal by the addressee to accept delivery
14 of a required notice. If notice by certified mail to occupants under this Paragraph is impractical, the responsible party
15 may give notice by posting such notice prominently in a manner designed to give actual notice to the occupants. If
16 notice is made to occupants by posting, the responsible party shall provide the Department with a copy of the posted
17 notice and a description of the manner in which such posted notice was given.

18 (b) A responsible party who receives a notice pursuant to Rule .0507(d) of this Section for a discharge or release
19 which has not been remediated to the groundwater standards or interim standards established in Rule .0202 of this
20 Subchapter or to the lower of the residential or soil-to-groundwater contaminant concentrations established under Rule
21 .0511 of this Section, shall, within 30 days of the receipt of such notice, provide a copy of the notice to: the local
22 Health Director and the chief administrative officer of each political jurisdiction in which the contamination occurs;
23 all property owners and occupants within or contiguous to the area containing contamination; and all property owners
24 and occupants within or contiguous to the area where the contamination is expected to migrate. Notification shall be
25 made by certified mail. The responsible party shall, within a time frame determined by the Department, provide the
26 Department with proof of receipt of the copy of the notice, or of refusal by the addressee to accept delivery of the
27 copy of the notice. If notice by certified mail to occupants under this Paragraph is impractical, the responsible party
28 may give notice by posting a copy of the notice prominently in a manner designed to give actual notice to the
29 occupants. If notice is made to occupants by posting, the responsible party shall provide the Department with a
30 description of the manner in which such posted notice was given.

31
32 Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282.

1 **15A NCAC 02L .0510 DEPARTMENTAL LISTING OF DISCHARGES OR RELEASES**

2 To the extent feasible, the Department shall maintain in each of the Department's regional offices a list of all non-UST
3 petroleum discharges or releases discovered and reported to the Department within the region.

4

5 Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282.

1 **15A NCAC 02L .0511 ESTABLISHING MAXIMUM SOIL CONTAMINATION CONCENTRATIONS**

2 For purposes of risk-based assessment and remediation for non-UST petroleum releases, refer to Rule .0411 of this
3 Subchapter for establishment of maximum soil contamination concentrations.

4

5 Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282;

1 **15A NCAC 02L .0512 ANALYTICAL PROCEDURES FOR SOIL SAMPLES**

2 For purposes of risk-based assessment and remediation for non-UST petroleum releases, refer to Rule .0412 of this
3 Subchapter for analytical procedures for soil samples.

4

5 Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282.

1 **15A NCAC 02L .0513 ANALYTICAL PROCEDURES FOR GROUNDWATER SAMPLES**

2 For purposes of risk-based assessment and remediation for non-UST petroleum releases, refer to Rule .0413 of this
3 Subchapter for analytical procedures for groundwater samples.

4

5 Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282.

1 **15A NCAC 02L .0514 REQUIRED LABORATORY CERTIFICATION**

2 In accordance with 15A NCAC 02H .0804, laboratories are required to obtain North Carolina Division of Water
3 Resources laboratory certification for parameters that are required to be reported to the State in compliance with the
4 State's surface water, groundwater and pretreatment rules.

5

6 Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282.

1 **15A NCAC 02L .0515 DISCHARGES OR RELEASES FROM OTHER SOURCES**

2 This Section shall not relieve any person responsible for assessment or cleanup of contamination from a source other
3 than a non-UST petroleum release from its obligation to assess and clean up contamination resulting from such
4 discharge or releases.

5

6 Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282.

APPENDIX A

SECTION .0500 - RISK-BASED ASSESSMENT AND CORRECTIVE ACTION FOR NON-UST
PETROLEUM RELEASES**15A NCAC 02L .0501 PURPOSE AND SCOPE**

(a) The purpose of this Section is to establish procedures for risk-based assessment and corrective action sufficient to:

- (1) protect human health and the environment;
- (2) abate and control contamination of the waters of the State as deemed necessary to protect human health and the environment;
- (3) permit management of the State's groundwaters to protect their designated current usage and potential future uses;
- (4) provide for anticipated future uses of the State's groundwater;
- (5) recognize the diversity of contaminants, the State's geology and the characteristics of each individual site; and
- (6) accomplish these goals in a cost-efficient manner to assure the best use of the limited resources available to address groundwater pollution within the State.

(b) The applicable portions of Section .0100 not specifically excluded apply to this Section.

History Note: Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282;
Eff. Month 1, year.

1 **15A NCAC 02L .0502 DEFINITIONS**

2 The definitions as set out in 15A NCAC 02L .0102 apply to this Section, except that the following definitions
3 apply throughout this Section:

4 (1) "Aboveground storage tank" or "AST" means any one or a combination of tanks (including
5 underground pipes connected thereto) that is used to contain an accumulation of petroleum.

6 (2) "AST system" means an aboveground storage tank, connected underground piping,
7 underground ancillary equipment, and containment system, if any".

8 (3) "Discharge" means, but is not limited to, any emission, spillage, leakage, pumping, pouring,
9 emptying, or dumping of oil into groundwater or surface water or upon land in such
10 proximity to such water that it is likely to reach the water and any discharge upon land which
11 is intentional, knowing or willful.

12 (4) "Operator" means any person in control of, or having responsibility for the daily operation of
13 the AST system.

14 (5) "Owner" means any person who owns a petroleum aboveground storage tank or other non-
15 UST petroleum tank, stationary or mobile, used for storage, use, dispensing, or transport.

16 (6) "Person" means an individual, trust, firm, joint stock company, Federal agency, corporation,
17 state, municipality, commission, political subdivision of a state, or any interstate body.

18 "Person" also includes a consortium, a joint venture, a commercial entity, and the United
19 States Government.

20 (7) "Petroleum" is defined in G.S. 143-215.94A(10).

21 (8) "Release" means any spilling, leaking, emitting, discharging, escaping, or leaching or
22 disposing into groundwater, surface water, or surface or subsurface soils.

23 (9) "Tank" is a device used to contain an accumulation of petroleum and constructed of non-
24 earthen materials (e.g., concrete, steel, plastic) that provides structural support.

25
26 History Note: Authority G.S. 143-212(4); 143-215.2; 143-215.3(a)(1); 143-215.77; 143B-282;
27 Eff. Month 1, year.
28

1 **15A NCAC 02L .0503 RULE APPLICATION**

2 This Section applies to any non-UST petroleum discharge. The requirements of this Section shall apply to the
3 owner and operator of a petroleum aboveground storage tank or other non-UST petroleum tank, stationary or
4 mobile, from which a discharge or release occurred and any person determined to be responsible for assessment
5 and cleanup of a discharge or release from a non-UST petroleum source, including any person who has
6 conducted or controlled an activity which results in the discharge or release of petroleum or petroleum products
7 (as defined in G.S. 143-215.94A(10)) to the groundwaters of the State, or in proximity thereto; these persons
8 shall be collectively referred to for purposes of this Section as the "responsible party".

9
10 *History Note:* Authority G.S. 143-215.2; 143-215.3(a)(1);143B-282;

11 *Eff. Month 1, year.*
12

1 **15A NCAC 02L .0504 REQUIRED INITIAL RESPONSE AND ABATEMENT ACTIONS BY**
2 **RESPONSIBLE PARTY**

3 A responsible party shall:

- 4 (1) take actions to prevent any further discharge or release of petroleum from the non-UST
5 petroleum source; identify and mitigate any fire, explosion or vapor hazard; and report the
6 release within 24 hours, in compliance with G.S. 143-215.83(a), 84(a), and 85(b);
- 7 (2) perform initial abatement actions to measure for the presence of a release where
8 contamination is most likely to be present and to confirm the precise source of the release; to
9 investigate to determine the possible presence of free product and to begin free product
10 removal; and to continue to monitor and mitigate any additional fire, vapor, or explosion
11 hazards posed by vapors or by free product; and submit a report within 20 days after release
12 confirmation summarizing these initial abatement actions;
- 13 (3) remove contaminated soil which would act as continuing source of contamination to
14 groundwater. For a new release, if initial abatement actions involving control and removal of
15 contaminated materials can be initiated within 48 hours from discovery; before contaminated
16 materials have the opportunity to impact groundwater; and if remaining soils contain
17 contaminants with levels less than the TPH action level or less than either the soil-to-
18 groundwater or residential MSCCS (whichever is lowest); no further action is necessary. If
19 the abatement actions cannot be initiated within 48 hours of discovery and petroleum
20 contaminated soil concentrations less than TPH action level cannot be achieved, conduct
21 activities in the subsequent items of this rule.
- 22 (4) conduct initial site assessment, assembling information about the site and the nature of the
23 release, including but not necessarily limited to the following:
- 24 (a) Site history and site characterization, including but not limited to, data on nature and
25 estimated quantity of release and data from available sources and site investigations
26 concerning surrounding populations, water quality, use, and approximate locations of wells,
27 surface water bodies, and subsurface structures potentially effected by the release, subsurface
28 soil conditions, locations of subsurface utilities, climatological conditions, and landuse;
- 29 (b) Results of free product investigations and free product removal, if applicable;
- 30 (c) Results of groundwater and surface water investigations, if applicable;
- 31 (d) Summary of initial response and abatement actions;
32 and submit this information in the report required under Item (5) of this Rule.
- 33 (5) submit within 90 days of the discovery of the discharge or release an initial assessment and
34 abatement report containing the site characterization information required in Item (4) of this
35 Rule; soil assessment information sufficient to show that remaining unsaturated soil in the
36 side walls and at the base of the excavation does not contain contaminant levels which exceed
37 either the "soil-to-groundwater" or the residential maximum soil contaminant concentrations

1 established by the Department pursuant to Rule .0511 of this Section, whichever is lower; and
2 documentation to show that neither bedrock nor groundwater was encountered in the
3 excavation (or if groundwater was encountered, that contaminant concentrations in
4 groundwater were equal to or less than the groundwater quality standards established in 15A
5 NCAC 2L .0202). If such showing is made, the discharge or release shall be classified as low
6 risk by the Department.

7
8 *History Note: Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282;*
9 *Eff. Month 1, year.*

10

1 **15A NCAC 02L .0505 REQUIREMENTS FOR LIMITED SITE ASSESSMENT**

2 If the required showing cannot be made under Rule .0504 of this Section, submit within 120 days of the
3 discovery of the discharge or release, or within such other greater time limit approved by the Department, a
4 report containing information needed by the Department to classify the level of risk to human health and the
5 environment posed by a discharge or release under Rule .0506 of this Section. Such report shall include, at a
6 minimum:

- 7 (1) a location map, based on a USGS topographic map, showing the radius of 1500 feet from the
8 source area of a confirmed release or discharge and depicting all water supply wells, surface
9 waters and designated wellhead protection areas as defined in 42 U.S.C. 300h-7(e) within the
10 1500-foot radius. For purposes of this Section, source area means point of release or
11 discharge from the non-UST petroleum source or, if the point of release cannot be determined
12 precisely, source area is defined as the area of highest contaminant concentrations;
- 13 (2) a determination of whether the source area of the discharge or release is within a designated
14 wellhead protection area as defined in 42 U.S.C. 300h-7(e);
- 15 (3) if the discharge or release is in the Coastal Plain physiographic region as designated on a map
16 entitled "Geology of North Carolina" published by the Department in 1985, a determination
17 of whether the source area of the discharge or release is located in an area in which there is
18 recharge to an unconfined or semi-confined deeper aquifer which is being used or may be
19 used as a source of drinking water;
- 20 (4) a determination of whether vapors from the discharge or release pose a threat of explosion
21 due to the accumulation of vapors in a confined space, pose a risk to public health from
22 exposure, or pose any other serious threat to public health, public safety or the environment;
- 23 (5) scaled site map(s) showing the location of the following which are on or adjacent to the
24 property where the source is located: site boundaries, roads, buildings, basements, floor and
25 storm drains, subsurface utilities, septic tanks and leach fields, underground and aboveground
26 storage tank systems, monitoring wells, water supply wells, surface water bodies and other
27 drainage features, borings and the sampling points;
- 28 (6) the results from a limited site assessment which shall include the following actions:
- 29 (a) Determine the presence, the lateral and vertical extent, and the maximum
30 concentration levels of soil and, if possible, groundwater contamination and free
31 product accumulations.
- 32 (b) Install as many monitoring wells constructed in accordance with 15A NCAC 2C,
33 within the area of maximum soil or groundwater contamination as needed to
34 determine the groundwater flow direction and maximum concentrations of dissolved
35 groundwater contaminants or accumulations of free product, to include at a
36 minimum three monitoring wells, unless a greater or lesser number are specified for
37 a particular site by the Department ; during well construction, collect and analyze

1 soil samples, which should represent the suspected highest contaminant-level
2 locations by exhibiting visible contamination or elevated levels of volatile organic
3 compounds, from successive locations at five-foot depth intervals in the boreholes
4 of each monitoring well within the unsaturated zone; collect potentiometric data
5 from each monitoring well; and collect and analyze groundwater or measure the
6 amount of free product, if present, in each monitoring well;

7 (7) the availability of public water supplies and the identification of properties served by the
8 public water supplies within 1500 feet of the source area of a confirmed discharge or release;

9 (8) the land use, including zoning if applicable, within 1500 feet of the source area of a
10 confirmed discharge or release;

11 (9) a discussion of site specific conditions or possible actions which could result in lowering the
12 risk classification assigned to the release. Such discussion shall be based on information
13 known or required to be obtained under this Paragraph; and

14 (10) names and current addresses of all responsible parties for all petroleum sources for which a
15 discharge or release is confirmed, the owner(s) of the land upon which such petroleum
16 sources are located, and all potentially affected real property owners. Documentation of
17 ownership of ASTs or other sources and of the property upon which a source is located shall
18 be provided. When considering a request from a responsible party for additional time to
19 submit the report, the Division shall consider the extent to which the request for additional
20 time is due to factors outside of the control of the responsible party, the previous history of
21 the person submitting the report in complying with deadlines established under the
22 Commission's rules, the technical complications associated with assessing the extent of
23 contamination at the site or identifying potential receptors, and the necessity for immediate
24 action to eliminate an imminent threat to public health or the environment.

25
26 History Note: Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282;
27 Eff. Month 1, year.
28

1 **15A NCAC 02L .0506 DISCHARGE OR RELEASE CLASSIFICATIONS**

2 The Department shall classify the risk of each known discharge or release as high, intermediate or low risk
3 unless the discharge or release has been classified under 15A NCAC 02L .0504(3) of this Section. For
4 purposes of this Section:

5 (1) "High risk" means that:

- 6 (a) a water supply well, including one used for non-drinking purposes, has been
7 contaminated by the release or discharge;
8 (b) a water supply well used for drinking water is located within 1000 feet of the source
9 area of a confirmed discharge or release;
10 (c) a water supply well not used for drinking water is located within 250 feet of the
11 source area of a confirmed discharge or release;
12 (d) the groundwater within 500 feet of the source area of a confirmed discharge or
13 release has the potential for future use in that there is no source of water supply other
14 than the groundwater;
15 (e) the vapors from the discharge or release pose a serious threat of explosion due to
16 accumulation of the vapors in a confined space or pose a risk to public health from
17 exposure; or
18 (f) the discharge or release poses an imminent danger to public health, public safety, or
19 the environment.

20 (2) "Intermediate risk" means that:

- 21 (a) surface water is located within 500 feet of the source area of a confirmed discharge
22 or release and the maximum groundwater contaminant concentration exceeds the
23 applicable surface water quality standards and criteria found in 15A NCAC 02B
24 .0200 by a factor of 10;
25 (b) in the Coastal Plain physiographic region as designated on a map entitled "Geology
26 of North Carolina" published by the Department in 1985, the source area of a
27 confirmed discharge or release is located in an area in which there is recharge to an
28 unconfined or semi-confined deeper aquifer which the Department determines is
29 being used or may be used as a source of drinking water;
30 (c) the source area of a confirmed discharge or release is within a designated wellhead
31 protection area, as defined in 42 U.S.C. 300h-7(e);
32 (d) the levels of groundwater contamination for any contaminant except ethylene
33 dibromide, benzene and alkane and aromatic carbon fraction classes exceed 50
34 percent of the solubility of the contaminant at 25 degrees Celsius or 1,000 times the
35 groundwater standard or interim standard established in 15A NCAC 02L .0202,
36 whichever is lower; or

1 (e) the levels of groundwater contamination for ethylene dibromide and benzene exceed
2 1,000 times the federal drinking water standard set out in 40 CFR 141.

3 (3) "Low risk" means that:

4 (a) the risk posed does not fall within the high or intermediate risk categories; or

5 (b) based on review of site-specific information, limited assessment or interim
6 corrective actions, the Department determines that the discharge or release poses no
7 significant risk to human health or the environment.

8 If the criteria for more than one risk category applies, the discharge or release shall be classified at the highest
9 risk level identified in Rule .0507 of this Section.

10
11 History Note: Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282;

12 Eff. Month 1, year.

13

1 **15A NCAC 02L .0507 RECLASSIFICATION OF RISK LEVELS**

2 (a) The Department may reclassify the risk posed by a release if warranted by further information concerning
3 the potential exposure of receptors to the discharge or release or upon receipt of new information concerning
4 changed conditions at the site. After initial classification of the discharge or release, the Department may
5 require limited assessment, interim corrective action, or other actions which the Department believes will result
6 in a lower risk classification. It shall be a continuing obligation of each responsible party to notify the
7 Department of any changes that might affect the level of risk assigned to a discharge or release by the
8 Department if the change is known or should be known by the responsible party. Such changes shall include,
9 but shall not be limited to, changes in zoning of real property, use of real property or the use of groundwater
10 that has been contaminated or is expected to be contaminated by the discharge or release, if such change could
11 cause the Department to reclassify the risk.

12 (b) If the risk posed by a discharge or release is determined by the Department to be high risk, the responsible
13 party shall comply with the assessment and cleanup requirements of Rule .0106(c), (g) and (h) of this
14 Subchapter. The goal of any required corrective action for groundwater contamination shall be restoration to
15 the level of the groundwater standards set forth in 15A NCAC 02L .0202, or as closely thereto as is
16 economically and technologically feasible. In any corrective action plan submitted pursuant to this Paragraph,
17 natural attenuation shall be used to the maximum extent possible. If the responsible party demonstrates that
18 natural attenuation prevents the further migration of the plume, the Department may approve a groundwater
19 monitoring plan.

20 (c) If the risk posed by a discharge or release is determined by the Department to be an intermediate risk, the
21 responsible party shall comply with the assessment requirements of 15A NCAC 02L .0106(c) and (g). As part
22 of the comprehensive site assessment, the responsible party shall evaluate, based on site specific conditions,
23 whether the release poses a significant risk to human health or the environment. If the Department determines,
24 based on the site-specific conditions, that the discharge or release does not pose a significant threat to human
25 health or the environment, the site shall be reclassified as a low risk site. If the site is not reclassified, the
26 responsible party shall, at the direction of the Department, submit a groundwater monitoring plan or a
27 corrective action plan, or a combination thereof, meeting the cleanup standards of this Paragraph and containing
28 the information required in 15A NCAC 02L .0106(h). Discharges or releases which are classified as
29 intermediate risk shall be remediated, at a minimum, to a cleanup level of 50 percent of the solubility of the
30 contaminant at 25 degrees Celsius or 1,000 times the groundwater standard or interim standard established in
31 15A NCAC 02L .0202, whichever is lower for any groundwater contaminant except ethylene dibromide,
32 benzene and alkane and aromatic carbon fraction classes. Ethylene dibromide and benzene shall be remediated
33 to a cleanup level of 1,000 times the federal drinking water standard set out in 40 CFR 141. Additionally, if a
34 corrective action plan or groundwater monitoring plan is required under this Paragraph, the responsible party
35 shall demonstrate that the groundwater cleanup levels are sufficient to prevent a violation of:

- 36 (1) the rules contained in 15A NCAC 02B;

1 (2) the standards contained in 15A NCAC 02L .0202 in a deep aquifer as described in Rule
2 .0506(2)(b) of this Section; and

3 (3) the standards contained in 15A NCAC 02L .0202 at a location no closer than one year time of
4 travel upgradient of a well within a designated wellhead protection area, based on travel time
5 and the natural attenuation capacity of the subsurface materials or on a physical barrier to
6 groundwater migration that exists or will be installed by the person making the request.

7 In any corrective action plan submitted pursuant to this Paragraph, natural attenuation shall be used to the
8 maximum extent possible.

9 (d) If the risk posed by a discharge or release is determined by the Department to be a low risk, the Department
10 shall notify the responsible party that no cleanup, no further cleanup or no further action will be required by the
11 Department, unless the Department later determines that the discharge or release poses an unacceptable risk or a
12 potentially unacceptable risk to human health or the environment. No notification will be issued pursuant to
13 this Paragraph, however, until the responsible party has completed soil remediation pursuant to Rule .0508 of
14 this Section or as closely thereto as economically or technologically feasible; has submitted proof of public
15 notification and has recorded any land-use restriction(s), if required; and paid any applicable statutorily
16 authorized fees. The issuance by the Department of a notification under this Paragraph shall not affect any
17 private right of action by any party which may be affected by the contamination.

18
19 History Note: Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282;
20 Eff. Month 1, year.
21

1 **15A NCAC 02L .0508 ASSESSMENT AND REMEDIATION PROCEDURES**

2 Assessment and remediation of soil contamination shall be addressed as follows:

- 3 (1) At the time that the Department determines the risk posed by the discharge or release, the
4 Department shall also determine, based on site-specific information, whether the site is
5 "residential" or "industrial/commercial." For purposes of this Section, a site is presumed
6 residential, but may be classified as industrial/commercial if the Department determines
7 based on site-specific information that exposure to the soil contamination is limited in time
8 due to the use of the site and does not involve exposure to children. For purposes of this
9 Item, "site" means both the property upon which the discharge or release has occurred and
10 any property upon which soil has been affected by the discharge or release.
- 11 (2) The responsible party shall submit a report to the Department assessing the vertical and
12 horizontal extent of soil contamination.
- 13 (3) For a discharge or release classified by the Department as low risk, the responsible party shall
14 submit a report demonstrating that soil contamination has been remediated to either the
15 residential or industrial/commercial maximum soil contaminant concentration established by
16 the Department pursuant to Rule .0511 of this Section, whichever is applicable.
- 17 (4) For a discharge or release classified by the Department as high or intermediate risk, the
18 responsible party shall submit a report demonstrating that soil contamination has been
19 remediated to the lower of:
- 20 (a) the residential or industrial/commercial maximum soil contaminant concentration,
21 whichever is applicable, that has been established by the Department pursuant to
22 Rule .0511 of this Section; or
- 23 (b) the "soil-to-groundwater" maximum soil contaminant concentration that has been
24 established by the Department pursuant to Rule .0511 of this Section.

25
26 *History Note:* Authority G.S. 143-215.2; 143-215.3(a)(1);; 143B-282;

27 Eff. Month 1, year.
28

1 **15A NCAC 02L .0509 NOTIFICATION REQUIREMENTS**

2 (a) A responsible party who submits a corrective action plan which proposes natural attenuation or to cleanup
3 groundwater contamination to a standard other than a standard or interim standard established in 15A NCAC
4 02L .0202, or to cleanup soil other than to the standard for residential use or soil-to-groundwater contaminant
5 concentration established pursuant to this Section, whichever is lowest, shall give notice to: the local Health
6 Director and the chief administrative officer of each political jurisdiction in which the contamination occurs; all
7 property owners and occupants within or contiguous to the area containing the contamination; and all property
8 owners and occupants within or contiguous to the area where the contamination is expected to migrate. Such
9 notice shall describe the nature of the plan and the reasons supporting it. Notification shall be made by certified
10 mail concurrent with the submittal of the corrective action plan. Approval of the corrective action plan by the
11 Department shall be postponed for a period of 30 days following receipt of the request so that the Department
12 may consider comments submitted. The responsible party shall, within a time frame determined by the
13 Department to be sufficient, provide the Department with a copy of the notice and proof of receipt of each
14 required notice, or of refusal by the addressee to accept delivery of a required notice. If notice by certified mail
15 to occupants under this Paragraph is impractical, the responsible party may give notice by posting such notice
16 prominently in a manner designed to give actual notice to the occupants. If notice is made to occupants by
17 posting, the responsible party shall provide the Department with a copy of the posted notice and a description of
18 the manner in which such posted notice was given.

19 (b) A responsible party who receives a notice pursuant to 15A NCAC 02L .0507(d) of this Section for a
20 discharge or release which has not been remediated to the groundwater standards or interim standards
21 established in Rule .0202 of this Subchapter or to the lower of the residential or soil-to-groundwater
22 contaminant concentrations established under Rule .0511 of this Section, shall, within 30 days of the receipt of
23 such notice, provide a copy of the notice to: the local Health Director and the chief administrative officer of
24 each political jurisdiction in which the contamination occurs; all property owners and occupants within or
25 contiguous to the area containing contamination; and all property owners and occupants within or contiguous to
26 the area where the contamination is expected to migrate. Notification shall be made by certified mail. The
27 responsible party shall, within a time frame determined by the Department, provide the Department with proof
28 of receipt of the copy of the notice, or of refusal by the addressee to accept delivery of the copy of the notice. If
29 notice by certified mail to occupants under this Paragraph is impractical, the responsible party may give notice
30 by posting a copy of the notice prominently in a manner designed to give actual notice to the occupants. If
31 notice is made to occupants by posting, the responsible party shall provide the Department with a description of
32 the manner in which such posted notice was given.

33
34 *History Note: Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282;*
35 *Eff. Month 1, year.*
36

1 **15A NCAC 02L .0510 DEPARTMENTAL LISTING OF DISCHARGES OR RELEASES**

2 To the extent feasible, the Department shall maintain in each of the Department's regional offices a list of all
3 non-UST petroleum discharges or releases discovered and reported to the Department within the region.

4
5 History Note: Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282;

6 Eff. Month 1, year.

7

1 **15A NCAC 02L .0511 ESTABLISHING MAXIMUM SOIL CONTAMINATION**

2 **CONCENTRATIONS**

3 For purposes of risk-based assessment and remediation for non-UST petroleum releases, refer to 15A NCAC
4 02L .0411 for establishment of maximum soil contamination concentrations.

5

6 History Note: Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282;

7 Eff. Month 1, year.

8

1 **15A NCAC 02L .0512 ANALYTICAL PROCEDURES FOR SOIL SAMPLES**

2 For purposes of risk-based assessment and remediation for non-UST petroleum releases, refer to 15A NCAC
3 02L .0412 for analytical procedures for soil samples.

4
5 History Note: Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282;
6 Eff. Month 1, year.

7

1 **15A NCAC 02L .0513 ANALYTICAL PROCEDURES FOR GROUNDWATER SAMPLES**

2 For purposes of risk-based assessment and remediation for non-UST petroleum releases, refer to 15A NCAC
3 02L .0413 for analytical procedures for groundwater samples.

4

5 History Note: Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282;

6 Eff. Month 1, year.

7

1 **15A NCAC 02L .0514 REQUIRED LABORATORY CERTIFICATION**

2 In accordance with 15A NCAC 02H .0804, laboratories are required to obtain North Carolina Division of Water
3 Resources laboratory certification for parameters that are required to be reported to the State in compliance with
4 the State's surface water, groundwater and pretreatment rules.

5

6 History Note: Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282;

7 Eff. Month 1, year.

8

1 **15A NCAC 02L .0515 DISCHARGES OR RELEASES FROM OTHER SOURCES**

2 This Section shall not relieve any person responsible for assessment or cleanup of contamination from a source
3 other than a non-UST petroleum release from its obligation to assess and clean up contamination resulting from
4 such discharge or releases.

5

6 History Note: Authority G.S. 143-215.2; 143-215.3(a)(1); 143B-282;

7 Eff. Month 1, year.

8

9

Appendix B

Acronyms

CAP – Corrective Action Plan

CSA – Comprehensive Site Assessment

FP – Free Product

IAA – Initial Abatement Action

ID - Identify

MDL – Method Detection Limit

MSCC – Maximum Soil Contaminant Concentration

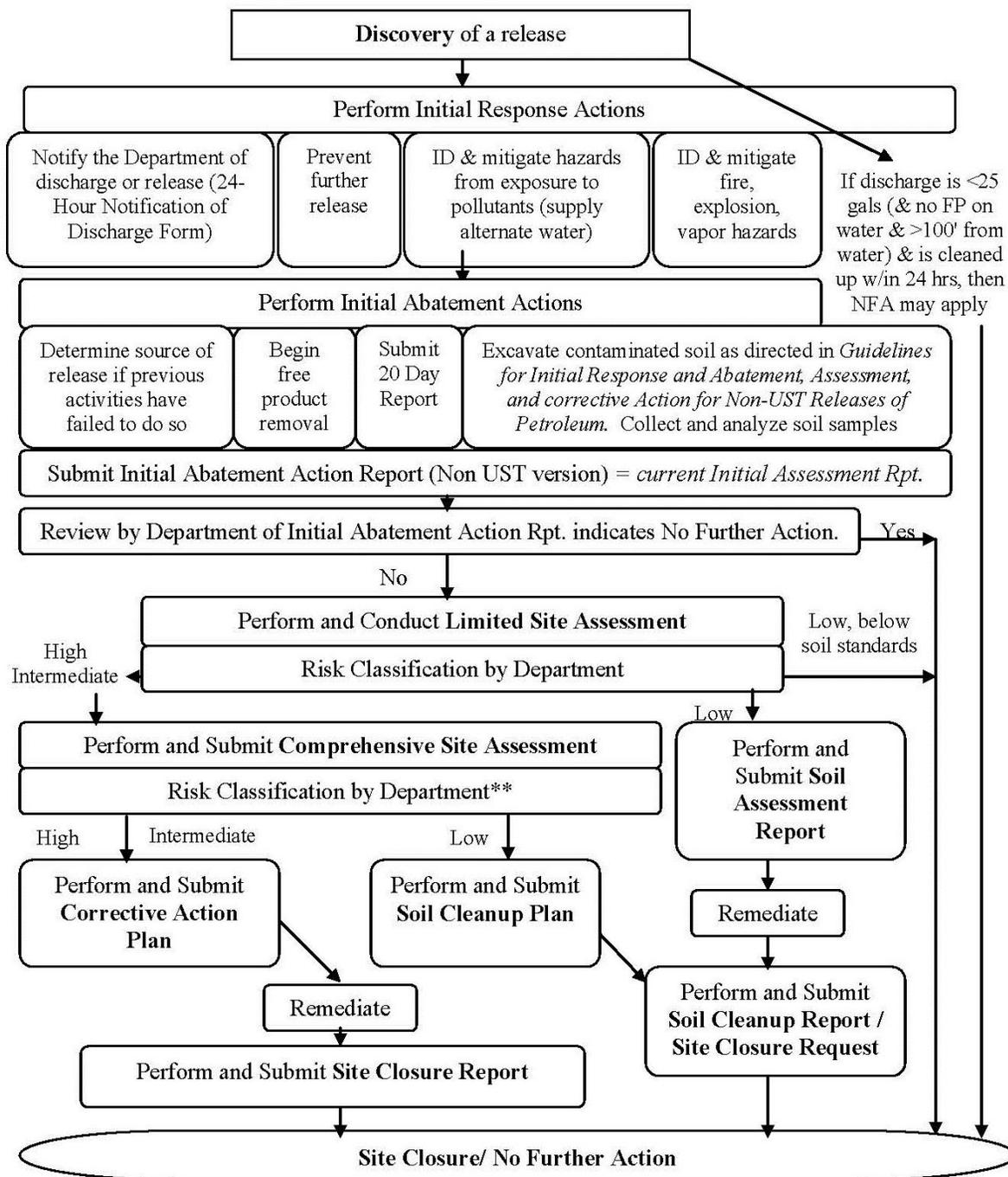
NFA – No Further Action

UST – Underground Storage Tank

Figure 1

Flowchart of Requirements for Non-UST Releases of Petroleum

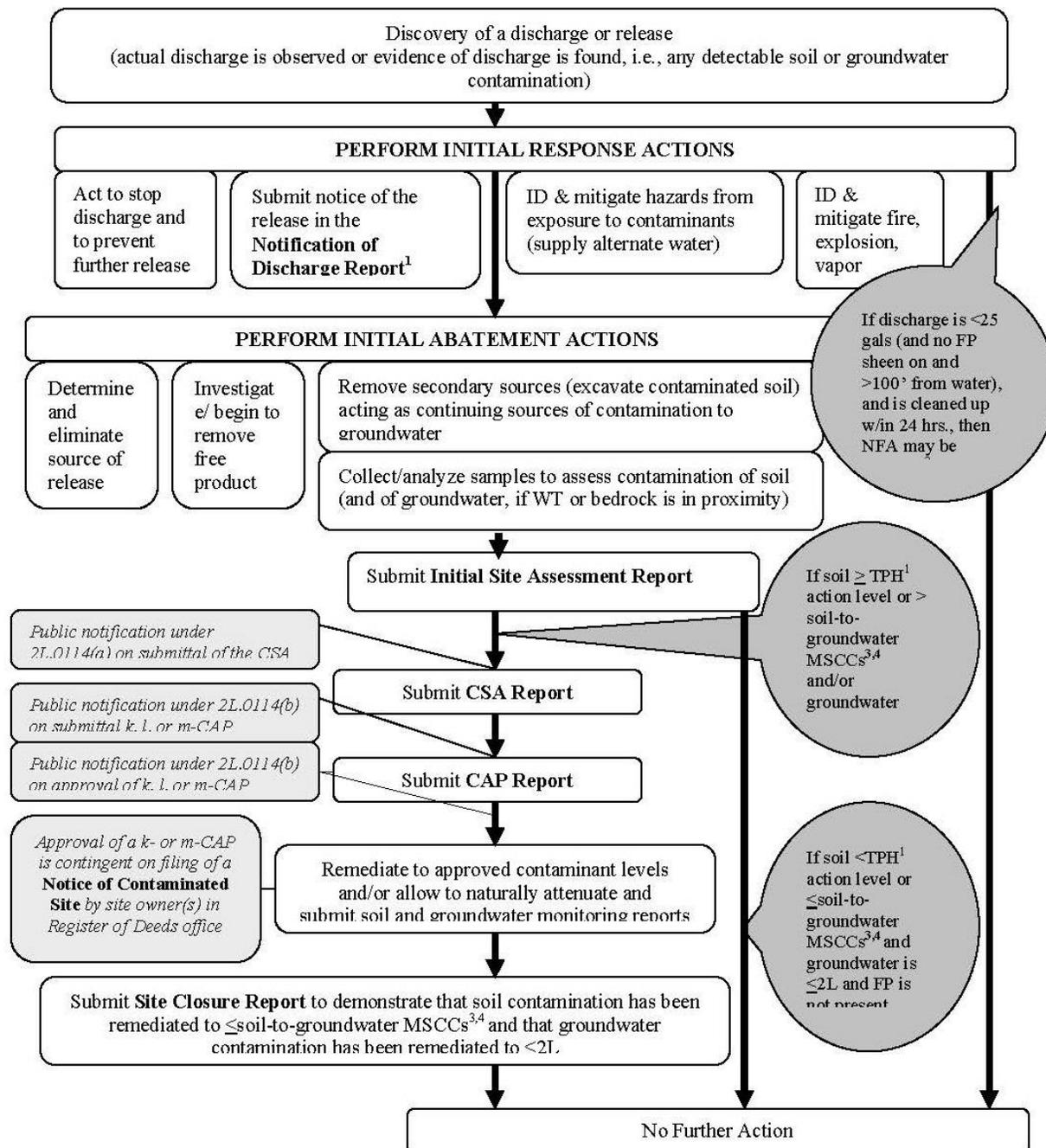
*Draft for proposed risk-based requirements under Section 2L .500



**Note: Risk Classification may change at any time due to changes in site conditions or corrective or interim actions.

Figure 2

Flowchart of Requirements for Non-UST Releases of Petroleum

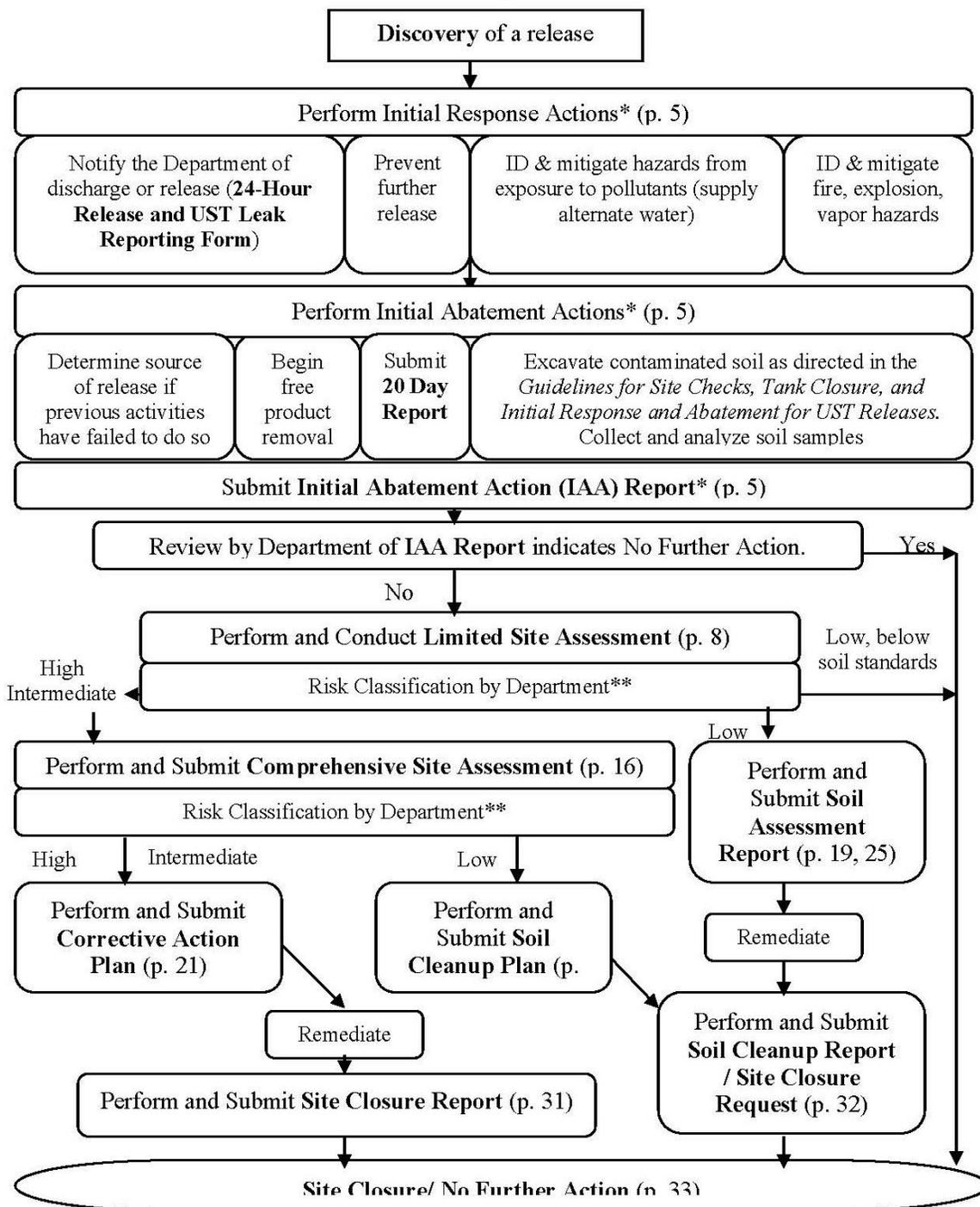


1. If the discharge is ≥ 25 gals (etc.), a Notification of Discharge is required, followed by initial abatement actions, etc.
2. If the discharge is ≤ 25 gals (etc.), but is not cleaned up within 24 hours, a Notification of Discharge is required
3. Use the approved analytical methods listed in Tables 3 and 4.
4. If no established soil-to-groundwater MSCC exists for a contaminant in soil, then the default concentration limit is the MDL.

Figure 3

Flowchart of Requirements for Petroleum Releases

*For guidance on initial actions, see the *Guidelines for Site Checks, Tank Closure, and Initial Response and Abatement for UST Releases*.



**Note: Risk Classification may change at any time due to changes in site conditions or corrective or interim actions.

Kromm, Carin

From: Bill Walsh <bill.walsh@catlinusa.com>
Sent: Wednesday, September 09, 2015 2:57 PM
To: Smith, Linda
Cc: Rick Garrett
Subject: Proposed Rules for Risk-Based Assessment and Corrective Action for Non-UST Petroleum Releases

Linda,

I apologize for not getting this to you sooner. Per our discussion at the public hearing for the Proposed Rules for Risk Based Assessment and Corrective Action for Non-UST Petroleum Releases, below is my comment concerning the proposed wording of 15A NCAC 02L.0504(3).

15A NCAC 02L.0504 REQUIRED INITIAL RESPONSE AND ABATEMENT ACTIONS BY RESPONSIBLE PARTY

A responsible party shall:

(3) remove contaminated soil which would act as continuing source of contamination to groundwater. For a new release, if initial abatement actions involving control and removal of contaminated materials can be initiated within 48 hours from discovery; before contaminated materials have the opportunity to impact groundwater; and if remaining soils contain contaminants with levels less than the TPH action level or less than either the soil-to-groundwater or residential MSCCS (whichever is lowest); no further action is necessary. If the abatement actions cannot be initiated within 48 hours of discovery and petroleum contaminated soil concentrations less than TPH action level cannot be achieved, conduct activities in the subsequent items of this rule.

Specifically, the last sentence which states:

"If the abatement actions cannot be initiated within 48 hours of discovery and petroleum contaminated soil concentrations less than TPH action level cannot be achieved, conduct activities in the subsequent items of this rule."

I believe the use of the conjunction "and" in this conditional statement causes the sentence's logic to not match the intent of the rule. Specifically, the way the sentence is currently worded, the logic diagramed in the table below would follow:

Example	Were the abatement actions not able to be initiated within 48 hours of discovery?	Were petroleum contaminated soil concentrations less than TPH action levels not able to be achieved?	Is it necessary to conduct activities in the subsequent items of this rule?
1	Yes	Yes	Yes
2	No	No	No
3	Yes	No	No
4	No	Yes	No

In example #4 above, because both statements in the conjunction are not both true, the sentence implies that the need to conduct activities in the subsequent items of the rule is not necessary. I believe the intent of the rule would be better met if only one part of the conjunction was required to be true to imply the need for additional activities. This could be achieved through one of the following alternative wordings:

*“If the abatement actions cannot be initiated within 48 hours of discovery **or** petroleum contaminated soil concentrations less than TPH action level cannot be achieved, conduct activities in the subsequent items of this rule.”*

or

*“If the abatement actions **were able to be** initiated within 48 hours of discovery and petroleum contaminated soil concentrations less than TPH action level **were able to be** achieved, **the responsible party is not required to** conduct activities in the subsequent items of this rule; **however, all other scenarios require the responsible party to conduct activities in the subsequent items of this rule.**”*

**Sincerely,
Bill Walsh**

William J. Walsh, P.E.
1044 Washington Street
Raleigh, NC 27605
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2015 SEP 18 PM 1:00

September 15, 2015

Linda L. Smith
Corrective Action Branch, UST Section
NC DENR, Division of Waste Management
1646 Mail Service Center, Raleigh, NC 27699-1646

Dear Ms. Smith:

Thank you for the opportunity to comment on the proposed Rules for Risk-Based Assessment and Corrective Action for Non-UST Petroleum Releases, Section 15A NCAC 02L .0500.

The NC Petroleum & Convenience Marketers (NCPCM) has been advocating for this very rule for many years. NCPCM agrees with the petitioner that it is inconsistent to require risk-based remediation for only petroleum contamination from petroleum USTs. We welcome the rule change and agree that it can be protective of human health and the environment while reducing cleanup costs to many responsible parties.

Sincerely,

A handwritten signature in black ink, appearing to read "Douglas Howey", is written over a faint, larger version of the same signature.

Douglas Howey, L.G.
Government & Regulatory Affairs Director