

NORTH CAROLINA
DEPARTMENT OF ENVIRONMENTAL QUALITY

Revised

ADMINISTRATIVE PROCEDURES
for
***RISK-BASED ENVIRONMENTAL
REMEDiation OF CONTAMINATED
SITES PURSUANT TO
N.C.G.S. 130A-310.65 through 310.77***



April 2020

DEPARTMENT OF ENVIRONMENTAL QUALITY

ADMINISTRATIVE PROCEDURES FOR RISK-BASED ENVIRONMENTAL REMEDIATION OF CONTAMINATED SITES PURSUANT TO N.C.G.S. 130A-310.65 through 310.77

These procedures outline the necessary steps for initiating risk-based remediation of a contaminated site pursuant to Part 8 of Article 9 of Chapter 130A of the North Carolina General Statutes (G.S.) [130A-310.65 through 310.77](#). Additional technical guidance and risk assessment resources are available to provide a consistent approach to evaluating risks and to assist remediating parties with developing a risk-based remedial action plan. These resources can be accessed via the North Carolina Department of Environmental Quality's (DEQ's) [Risk-Based Remediation website](#). Remediating parties should consult with the appropriate remediation program when considering a risk-based remedy to discuss eligibility and site conditions, and to ensure the requirements are well-understood.

Risk-based remediation under G.S. 130A-310.65 through 310.77 has its greatest application at sites with groundwater contamination exceeding the 15A NCAC 02L groundwater standards. Since there are no promulgated standards for contaminants in soils, DEQ continues to provide risk-based screening levels for soil based on human health risk and risk to groundwater from leachable soil contamination. Therefore, for sites with only soil contamination, cleanup levels can be determined and used without needing to follow these administrative procedures and paying the fees associated with this legislation for risk-based environmental remediation of sites. See the "[Quick Clean Procedures](#)" posted to the Inactive Hazardous Sites Branch website for expedited closure of sites with minimal soil contamination.

The following procedures are summarized from G.S. 130A-310.65 through 310.77.

Step 1: Confirm Program Eligibility:

Confirm that remediation of the contamination is governed by one of the following programs and that any necessary permits or agreements are in place to document the regulatory jurisdiction:

- The Inactive Hazardous Sites Response Act: *Accidental chemical product spills and old unpermitted chemical discharges/disposal prior to the Resource Conservation and Recovery Act, but not Pre-1983 Landfills;*
- The hazardous waste management program administered by the state pursuant to the federal Resource Conservation and Recovery Act;
- The solid waste management program administered pursuant to Article 9 of Chapter 130A of the general statutes;
- National Priorities List sites under the federal Superfund program administered in part by the state pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act;

- The groundwater protection corrective action requirements adopted by the Environmental Management Commission pursuant to Article 21 of Chapter 143 of the General Statutes:
 - *Groundwater contamination from non-petroleum accidental spills and historical releases (through the N.C. Division of Waste Management – Superfund Section - Inactive Hazardous Sites Branch);*
 - *Groundwater contamination at sites with N.C. Division of Water Resources permits and cases where parties should have had a permit for the discharge; and*
- Oil Pollution and Hazardous Substances Control Act (excluding petroleum releases): *Groundwater or surface water contamination at sites with N.C. Division of Water Resources permits and cases where parties should have had a permit for the discharge.*

Sites subject to remediation pursuant to the following programs are excluded from this law:

- The Leaking Petroleum Underground Storage Tank Cleanup program under Part 2A of Article 21A of Chapter 143 of the General Statutes and rules promulgated pursuant to that statute.
- Leaking petroleum above ground storage tanks and other sources of petroleum releases governed under Part 7 of Article 21A of Chapter 143 of the General Statutes and rules promulgated pursuant to this part.
- The Dry-Cleaning Solvent Cleanup program under Part 6 of Article 21A of Chapter 143 of the General Statutes and rules promulgated pursuant to that statute.
- The pre-1983 landfill assessment and remediation program established under G.S. 130A-310.6(c) through (g).
- The Coal Ash Management Act of 2014 under Part 21 of Article 9 of Chapter 130A of the General Statutes and rules promulgated pursuant to that Part.
- Animal waste management systems permitted under Part 1 or Part 1A of Article 21 of Chapter 143 of the General Statutes.

Step 2: Complete the Site Assessment:

In addition to specific program requirements, remediating parties should ensure that the following information is presented in a comprehensive remedial investigation/site assessment report. The report must be submitted to the Department before proceeding with a risk-based remedial action plan.

- Using technically sound and defensible lines of evidence, assess all contaminated areas of the site including types and levels of contamination, migration pathways and direction, concentration trends, and site characteristics. Delineate the extent of contamination in each environmental medium to unrestricted use levels (residential preliminary soil remedial goals for soil and sediment, 15A NCAC 02L standards or above detection limits where there is no final or interim standard for groundwater, and 15A NCAC 02B standards for surface water). When necessary, evaluate the potential for volatile constituents from contaminated soil or groundwater to enter current or anticipated future structures.
- Complete an evaluation and associated sampling to determine if contaminants in any environmental media exceed remediation standards or criteria established to prevent

migration from one medium to another. Migration/leaching from one medium to another may include soil to groundwater, sediment to surface water, groundwater to surface water, surface water to groundwater, groundwater to indoor air, soil to indoor air, or buried wastes to any medium. Conduct any testing, evaluation and modeling to demonstrate with reasonable assurance the extent to which contamination has migrated or may migrate in the future. Provide the lines of evidence commensurate with the complexity of the site to demonstrate plume stability. Maps along with spatial and temporal trend plots depicting plume behavior are preferred over predictive computer modeling.

- Identify sensitive environments and receptors and conduct any ecological risk assessment required for receptors identified.
- Determine where engineered and/or Institutional controls will be needed on the source property and any neighboring affected properties. Institutional controls will be in the form of a Declaration of Perpetual Land Use Restriction (DPLUR) document and/or a survey plat Notice, depending on the site-specific risks.
- Prepare a site assessment or remedial investigation report that includes any additional requirements unique to the remediation program, such as those required by permits. The site assessment report should present a well-understood conceptual site model that demonstrates that the extent of contamination in all media is known and the potential for migration can reasonably be predicted.

Step 3: Obtain Written Consent from Property Owners

For proposed remedies that will leave contaminant concentrations in excess of unrestricted (residential) use levels, the remediating party must obtain written consent for site-specific remediation standards from the owner of each property that is or may become contaminated by the site's source areas. Permission is needed prior to expending funds on the development of a remedial action plan.

The owners of "off-site property" must be provided a copy of [N.C.G.S. 130A, Article 9, Part 8 "Risk-based Environmental Remediation of Sites"](#) and DEQ's publication entitled "[Contaminated Property: Issues and Liability](#)." Each owner will be expected to sign the [Property Owner Consent Form](#) affirming that they have read the publication and consent to the alternate remediation standards. Note that off-site property also includes any affected publicly owned property, including rights-of-way for public streets, roads and sidewalks. It should also be noted that G.S. 130A-310.73A(a)(2) states that "the site-specific remediation standards shall not allow concentrations of contaminants on the off-site property to increase above the levels present on the date the written consent is obtained." To satisfy this requirement it is expected that remediating parties will use lines of evidence to demonstrate with reasonable assurance that contamination will not extend onto additional properties beyond those already contaminated, or extend beyond properties not yet impacted, unless permission for appropriate land-use controls has been granted. Contaminated groundwater only will require a Notice plat on the deed of every affected property. If other media pose an unacceptable risk (e.g., soil and/or vapor), then a companion DPLUR document will also be recorded on the property deed of every affected property.

When the risk-based remedial action plan for the site is finalized, the content of the land use restrictions document and/or companion survey plat must be approved and signed by the property owner prior to recordation in the chain of title. Prior to the recordation of any land-use control

instruments in the chain of title, an owner has the opportunity to review and negotiate the content of those instruments. If a property owner withdraws their approval, the remediating party must immediately notify the relevant remediation program within DEQ.

Step 4: Prepare Draft Notice of Intent to Remediate

The remediating party shall prepare a draft [Notice of Intent to Remediate](#) (NOIR) and compile a mailing list for the NOIR. The list shall, at a minimum, include all owners of contaminated property, all owners of property to which the contamination is expected to migrate, all owners of land adjoining contaminated parcels, local governments with taxing or land-use jurisdiction over the property, and any additional parties who have expressed interest in the environmental activities at the site. Note that the NOIR public notice under G.S. 130A-310.70 is not a substitute for other public notice requirements related to voluntary remediation agreements, permits, the remedial action plan or other regulatory requirement.

Step 5: Calculate Fees Due

Fees are established to cover the additional oversight expenses that DEQ incurs from review of risk-based remedy components, including site-specific human-health and ecological risk assessments, groundwater modeling, financial assurance instruments, public notice and institutional control documents. The application and oversight fees are determined using the [Fee Calculation Instructions and Worksheet](#). The Application Fee is due upon submittal of the proposed remedial action plan to DEQ and the Oversight Fee is due following DEQ approval of the plan. However, the remediating party may elect to make one payment of both fees at the time the draft remedial action plan is submitted.

Remediating parties conducting work in the Registered Environmental Consultant Program will receive credit toward the Application Fee, as indicated on the worksheet.

Step 6: Submit a “Statement of Intent” Package to DEQ for Approval to Proceed

For DEQ to determine whether a risk-based remedy is a viable option for the site, an initial packet of information must first be submitted to DEQ to (1) show that affected and potentially affected property-owners will permit institutional control(s) on their property, (2) ensure that neighboring and other parties are informed of an intended risk-based cleanup, and (3) review the fee calculation. For these reasons, the documents described and accessed in the previous steps (and on the DEQ Risk-Based Remediation website) and listed below, should be completed and sent as one submittal to the appropriate remediation program contact, and properly certified when required.

- A statement that the remediating party intends to pursue a risk-based remedy, and the site’s remedial investigation is complete and documented in the state files.
- A site map showing extent of contamination, sample data points, and owners and usage of affected and adjacent properties.
- Signed owner consent form(s).
- Notice of Intent to Remediate.

- Mailing list.
- Fee estimate worksheet (actual payment will accompany the remedial action plan).
- Document certification forms if work is conducted through the REC Program.

DEQ will review the fee calculation and ensure the package is complete. Once DEQ concurs with the information in the “intent” package, the remediating party shall issue the NOIR and provide DEQ with (i) certification that the NOIR was issued to the required parties, and (ii) copies of any comments received. Although there is no formal public comment period associated with the NOIR, any pertinent comments received must be addressed in the remedial action plan, as appropriate.

Step 7: Submit Draft Remedial Action Plan and Fee to DEQ for Review and Approval

After the NOIR is issued the remediating party can develop and submit a proposed risk-based remedial action plan and mail the fee to the relevant remediation program in DEQ. The remedial action plan shall provide for the protection of public health, safety and welfare, and the environment as specified in G.S. 130A-310.69 (b) and shall provide the analyses required in G.S. 130A-310.69 (c). Refer to the [Technical Guidance for Risk-Based Environmental Remediation of Sites](#) for additional information on addressing data gaps, calculating risk, and preparing remedial action plans for site-specific risk-based remediation.

DEQ’s review of the risk-based remedial action plan cannot begin until the fee is received. The fee(s) should be made out to the appropriate DEQ Division with “Risk-Based Remediation Fund” printed in the memo line. The check should be mailed with attention to the appropriate remediation program contact. The remedial action plan may require revisions and supplemental submissions based on DEQ’s review as well as public comment from local government and citizens.

Step 8: Conduct any Additionally Required Public Notice of the Remedial Action Plan

Once DEQ approves the remedial action plan, and draft versions of the institutional control document(s) are prepared and reviewed, the remedial action plan public notice requirements under the respective remediation program must be met. The mailing list for the remedial action plan should at a minimum include owners of affected and adjoining parcels, and any additional parties who have expressed interest in the environmental activities at the site as required by the respective remediation program.

Step 9: Record the Institutional Document(s) at the Register of Deeds Office

Contact the County Register of Deeds Office to be sure the institutional control documents are in acceptable form. For example, some offices no longer accept survey plats on mylar. If there are two institutional control documents as part of the remedy (a DPLUR and a Notice plat), the survey plat must be recorded with the Register of Deeds first. The map book and page number provided by the Register of Deeds is then entered into the DPLUR document prior to its recordation. Electronic copies of the documents must be emailed to the appropriate DEQ remediation program.