

15A NCAC 13B .1636 SELECTION OF REMEDY

(a) Based on the results of the assessment of corrective measures in accordance with Rule .1635 of this Section, the owner or operator shall select a remedy that meets the standards listed in Paragraph (b) of this Rule. Within 14 days of selecting a remedy, the permittee shall submit an application to modify the permit describing the selected remedy to the Division for review and approval that the remedy complies with this Rule. The application shall be subject to the processing requirements set forth in Rule .1603(c) of this Section. The application shall include the demonstrations necessary to comply with the financial assurance requirements set forth in Rule .1628 of this Section and Section .1800 of this Subchapter.

(b) Remedies shall:

- (1) be protective of human health and the environment;
- (2) attain the approved groundwater quality standards established in accordance with 15A NCAC 02L .0202, or the groundwater protection standards established in accordance with Rule .1634(b) of this Section;
- (3) control the source(s) of releases to reduce or eliminate, to the maximum extent practicable, further releases of 40 CFR 258 Appendix II constituents into the environment; and
- (4) comply with standards for management of wastes as specified in Rule .1637(e) of this Section.

(c) In selecting a remedy that meets the standards of Paragraph (b) of this Rule, the owner or operator shall consider the following factors:

- (1) The long-term and short-term effectiveness and protectiveness of the potential remedy(s), along with the degree of certainty that the remedy will prove successful based on consideration of the following:
 - (A) magnitude of reduction of existing risks;
 - (B) magnitude of residual risks in terms of likelihood of further releases due to wastes remaining following implementation of a remedy;
 - (C) the type and degree of long-term management required, including monitoring, operation, and maintenance;
 - (D) short-term risks that might be posed to the community, to workers, or to the environment during implementation of such a remedy, including potential threats to human health and the environment associated with excavation, transportation, and redisposal or containment;
 - (E) time until full protection is achieved;
 - (F) potential for exposure of humans and environmental receptors to remaining wastes, considering the potential threat to human health and the environment associated with excavation, transportation, redisposal, or containment;
 - (G) long-term reliability of the engineering and institutional controls; and
 - (H) potential need for replacement of the remedy.
- (2) The effectiveness of the remedy in controlling the source to reduce further releases based on consideration of the extent to which containment practices will reduce further releases, and the extent to which treatment technologies may be used.
- (3) The ease or difficulty of implementing a potential remedy based on consideration of the following types of factors:
 - (A) the degree of difficulty associated with constructing the technology;
 - (B) the expected operational reliability of the technologies;
 - (C) the need to coordinate with and obtain necessary approvals and permits from other agencies;
 - (D) the availability of necessary equipment and specialists; and
 - (E) the available capacity and location of needed treatment, storage, and disposal services.
- (4) The practicable capability of the owner or operator, including a consideration of the technical and economic capability.
- (5) The degree to which community concerns are addressed by a potential remedy.

(d) The owner or operator shall specify as part of the selected remedy a schedule for initiating and completing remedial activities. This schedule shall be submitted to the Division for review and approval to determine compliance with this Rule. The owner or operator shall consider the following factors in determining the schedule of remedial activities:

- (1) nature and extent of contamination;

- (2) practical capabilities of remedial technologies in achieving compliance with the approved groundwater protection standards and other objectives of the remedy;
 - (3) availability of treatment or disposal capacity for wastes managed during implementation of the remedy;
 - (4) desirability of utilizing technologies that are not currently available, but which may offer advantages over already available technologies in terms of effectiveness, reliability, safety, or ability to achieve remedial objectives;
 - (5) potential risks to human health and the environment from exposure to contamination prior to completion of the remedy;
 - (6) resource value of the aquifer including:
 - (A) current and future uses;
 - (B) proximity and withdrawal rate of users;
 - (C) groundwater quantity and quality;
 - (D) the potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to contaminants;
 - (E) the hydrogeologic characteristics of the facility and surrounding land;
 - (F) groundwater removal and treatment costs; and
 - (G) the costs and availability of alternative water supplies; and
 - (7) practical capability of the owner or operator.
- (e) The Division may determine that active remediation of a release of a 40 CFR 258 Appendix II constituent from a MSWLF unit is not necessary if the owner or operator demonstrates to the Division that:
- (1) the groundwater is contaminated by substances that have originated from a source other than a MSWLF unit and those substances are present in concentrations such that active cleanup of the release from the MSWLF unit would provide no reduction in risk to actual or potential receptors; or
 - (2) the constituent or constituents are present in groundwater that:
 - (A) is not currently or expected to be a source of drinking water; and
 - (B) is not hydraulically connected with water to which the constituents are migrating or are likely to migrate in concentrations that would exceed the approved groundwater protection standards; or
 - (3) remediation of the releases is technically impracticable; or
 - (4) remediation results in unacceptable cross-media impacts.
- (f) A determination by the Division pursuant to Paragraph (e) of this Rule shall not affect the authority of the State to require the owner or operator to undertake source control measures or other measures that may be necessary to eliminate or minimize further releases to groundwater, to prevent exposure to groundwater, or to remediate groundwater to concentrations that are technically practicable and reduce threats to human health or the environment.

*History Note: Authority G.S. 130A-294;
Eff. October 9, 1993;
Readopted Eff. September 16, 2021;
Amended Eff. March 15, 2023.*