

## SECTION .1200 - LAND DISPOSAL OF RADIOACTIVE WASTE

Codifier's Note: 10 NCAC 03G .3300 was transferred to 15A NCAC 11 .1200 effective January 4, 1990. Recodification pursuant to G.S. 143B-279.3.

### 10A NCAC 15 .1201 PURPOSE AND SCOPE

(a) This Section establishes the procedures, criteria, and terms and conditions upon which the agency issues licenses authorizing land disposal of low-level radioactive waste received from other persons for disposal. Disposal of low-level radioactive waste by the specific licensee who generates such waste is subject to the provisions of Rule .1628 of this Chapter.

(b) The rules in this Section do not apply to the disposal of:

- (1) low-level radioactive waste which is higher than Class C waste as defined in Rule .1628 of this Chapter;
- (2) byproduct material as defined in Section 11e.(2) of the Atomic Energy Act of 1954, as amended, in quantities greater than 10,000 kilograms and containing more than five millicuries of radium-226; or
- (3) licensed radioactive material pursuant to provisions of Rule .1628 of this Chapter.

(c) Nothing in this Section shall relieve any person of responsibility for complying with other applicable North Carolina laws and rules.

(d) This Section is designed to fulfill two objectives:

- (1) to meet the requirement of compatibility with the U.S. Nuclear Regulatory Commission regulations, and
- (2) to provide general guidance for the design, operation, closure and institutional control of a low-level radioactive waste disposal facility that has features to enhance its performance and provide additional confidence in its integrity.

As described in 10 CFR Part 61, Section 61.7 Concepts, land disposal is intended to further four safety objectives:

- (1) protection of the public from releases of radioactivity,
- (2) protection of an inadvertent intruder,
- (3) protection of workers at the facility, and
- (4) assurance of long-term stability after closure. There is every indication in research reports and environmental impact statements that land disposal with attention to site selection, waste classification, waste form, segregation and stability will limit radiation doses to those within the cited performance objectives of 10 CFR Part 61. Supplementary engineered barriers are included in the rules for North Carolina, however, to fulfill a further objective, viz,
- (5) protection against the possibility of unforeseen differences between expected and actual behavior of the disposal system.

The five goals are to be sought through the design, construction, and operation of a system that involves a carefully chosen combination of features that are described in existing rules plus additional requirements for engineered barriers. The total system will make use of selected processes and structures, such as compaction, solidification, packaging in high-integrity containers, placement of wastes, use of concrete for walls or fill, special trench covers, drainage systems, or other devices. The facility design objectives are to minimize contact of water with wastes, facilitate detection of water and contamination, retard release of radioactive materials, suppress the migration of wastes in the geologic medium, and accommodate timely recovery of wastes if necessary. Account is to be taken of radiation dose limits for facility workers and the public, and efforts are to be made to reduce costs without sacrificing safety.

The concept of "reasonable assurance" is used throughout this Section. Reasonable assurance is to be understood as placing primary emphasis on protection of public health and the environment. The cost of achieving reasonable assurance will be only a secondary consideration.

(e) Persons licensed pursuant to the provisions of this Section are also subject to the rules in Sections .0100, .0300, .1000, .1100, and .1600 of this Chapter, except as provided otherwise in this Section.

*History Note: Authority G.S. 104E-2; 104E-3; 104E-7; 104E-10; 104E-10.1; 104E-10.2; 104E-25; 104E-26; Eff. December 1, 1987; Amended Eff. January 1, 1994; Transferred and Recodified from 15A NCAC 11 .1201 Eff. February 1, 2015.*