

10A NCAC 15 .1229 SITE DESIGN FOR LAND DISPOSAL

- (a) Shallow land burial is prohibited as provided in G.S. 104E-20(b).
- (b) Site design features shall be directed toward long-term isolation and avoidance of the need for continuing active maintenance after site closure.
- (c) The disposal site design and operation shall be compatible with the disposal site closure and stabilization plan and lead to disposal site closure that provides reasonable assurance that the performance objectives of this Section will be met.
- (d) The disposal site shall be designed to complement and improve, where appropriate, the ability of the disposal site's natural characteristics to assure that the performance objectives of this Section will be met.
- (e) Covers shall be designed to minimize water infiltration, to direct percolating or surface water away from the disposed waste, and to resist degradation by surface geologic processes and biotic activity.
- (f) Surface features shall direct surface water drainage away from disposal units at velocities and gradients which will not result in erosion that will require ongoing active maintenance.
- (g) The disposal site shall be designed to minimize the contact of water with waste during storage, the contact of standing water with waste during disposal, and the contact of percolating or standing water with wastes after disposal.
- (h) The disposal units shall incorporate engineered barriers. The disposal units and incorporated engineered barriers shall be designed and constructed to meet the performance objectives, technical requirements and design criteria in G.S. 104E-25 and the following additional requirements:
 - (1) The engineered barriers shall provide reasonable assurance that they will complement, and where appropriate improve, the land disposal facility's ability to isolate the radioactive waste through the institutional control period;
 - (2) Engineered barrier structural integrity shall be maintained under normal and abnormal conditions of operation;
 - (3) Engineered barriers shall prevent contact between the surrounding earth and the waste, except for earth that may be used as fill material within the disposal unit; and
 - (4) The disposal units shall be constructed or emplaced in a manner which will ensure that the bottom of the disposal facility is at least seven feet above the seasonal high water table or more if necessary to meet the performance objectives of this Section.
- (i) The licensee shall develop, operate and maintain the site in a manner that will not diminish the hydrogeological performance of the site below the requirements contained in the rules of this Section.

*History Note: Authority G.S. 104E-7; 104E-10; 104E-25; 104E-26;
Eff. December 1, 1987;
Amended Eff. May 1, 1993; May 1, 1992;
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