15A NCAC 13B .0540 CONSTRUCTION REQUIREMENTS FOR C&DLF FACILITIES

This Rule establishes the performance standards and minimum criteria for designing and constructing a C&DLF unit. Additional standards for the cap system are described in Rule .0543 of this Section.

(1) Horizontal separation requirements.
   (a) Property line buffer. New C&DLF unit(s) at a new facility must establish a minimum 200-foot buffer between the C&DLF unit and all property lines for monitoring purposes. Existing operating units must at a minimum maintain existing upgradient buffers of 50 feet or more.
   (b) Offsite residential structures and wells. All C&DLF units at a new facility must establish a minimum 500-foot buffer between the C&DLF unit and existing residential structures and wells.
   (c) Surface waters. All C&DLF units at new facilities must establish a minimum 50-foot buffer between the C&DLF unit and any stream, river, lake, pond or other waters of the state as defined in G.S. 143-212.
   (d) Existing landfill units. A monitoring zone must be established between a new C&DLF unit and any existing landfill units such as MSW, Industrial, C&DLF, or Land Clearing and Inert Debris (LCID), in order to establish a ground-water monitoring system as set forth in Rule .0544 of this Section.

(2) Vertical separation requirements.
   (a) C&DLF unit(s) must be constructed so that the post-settlement bottom elevation of waste is a minimum of four feet above the seasonal high ground-water table and the bedrock datum plane contours established in the Design Hydrogeological Report prepared in accordance with Paragraph (b) of Rule .0538 of this Section.
   (b) In-situ or modified soils making up the upper two feet of separation as required by Sub-Item (a) of this Item, must consist of the following: SC, SM, ML, CL, MH, or CH soils per Unified Soil Classification System or as specified in the approved construction plan.

(3) Survey control.
   (a) One permanent benchmark of known elevation measured from a U.S. Geological Survey benchmark must be established and maintained for each 50 acres of developed landfill, or part thereof, at the landfill facility. This benchmark shall be the reference point for establishing vertical elevation control. Any survey performed pursuant to this Sub-Item must be performed by a Registered Land Surveyor.
   (b) Latitude and Longitude, expressed in decimal degrees, must be indicated at the approximate center of the facility.

(4) Location coordinates. The North Carolina State Plane (NCSP) coordinates must be established and one of its points must be the benchmark of known NCSP coordinates.

(5) Landfill subgrade. The landfill subgrade is the in-situ or modified soil layer(s), constructed embankments, and select fill providing the foundation for construction of the unit. The landfill subgrade must be graded in accordance to the plans and specifications prepared in accordance to Rule .0539 of this Section, which are incorporated into the permit to construct in accordance with Paragraph (b) of Rule .0534 of this Section as follows:
   (a) The owner or operator of the C&DLF unit must have the subgrade inspected by a qualified geologist or engineer when excavation is completed.
   (b) The owner or operator of the C&DLF unit must notify the Division's hydrogeologist at least 24 hours before subgrade inspection.
   (c) Compliance with the requirements of Sub-Item (2)(b) of this Rule must be in accordance with Paragraph (b) of Rule .0538 of this Section or by placement of soil in accordance with this Sub-Item and verified in accordance with Rule .0541 of this Section.

(6) Special engineering structures. Engineering structures, including cap systems, incorporated in the design and necessary to comply with the requirements of this Section must be specified in the engineering plan. Material, construction, and certification requirements necessary to ensure that the structure is constructed in accordance with the design and acceptable engineering practices must be included in the plans prepared in accordance with Rule .0539 of this Section.

(7) Sedimentation and erosion control. Adequate structures and measures must be designed and maintained to manage the run-on and run-off generated by the 24-hour, 25-year storm event, and

conform to the requirements of the Sedimentation Pollution Control Law (15A NCAC 04) and any required NPDES permits.

(8) Construction quality assurance (CQA) report. A CQA report must be submitted in accordance with Rule .0541 of this Section.

History Note: *Authority G.S. 130A-294;*
Eff. January 1, 2007.