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

This Rule shall establish the performance standards and 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. C&DLF unit(s) permitted after January 1, 2007 shall have a buffer of no less than 200 feet between the C&DLF unit and all property lines for monitoring purposes. Existing operating units shall maintain existing upgradient buffers of 50 feet or more.

(b) Offsite residential structures and wells. C&DLF units shall have a buffer of no less than 500 feet between the C&DLF unit and residential structures and wells existing at the time that the Division issues a notification of site suitability in accordance with Rule .0536(a)(1) of this Section.

(c) Surface waters. C&DLF units shall have a buffer of no less than 50 feet 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) Other landfill units. A buffer shall be established between a proposed C&DLF unit and any existing landfill units to establish a groundwater monitoring system to allow monitoring of each unit separately as set forth in Rule .0544 of this Section.

(e) C&DLF units shall meet the horizontal separation requirements of G.S. 130A-295.6(b) and (d) in accordance with the effective dates and applicability requirements of S.L. 2007-550 s. 9.(b) and S.L. 2013-413 s. 59.1 as amended by S.L. 2013-410 s. 47.6, and S.L. 2007-543.

(2) Vertical separation requirements.

(a) C&DLF units shall be constructed so that the post-settlement bottom elevation of waste is no less than four feet above the seasonal high groundwater table and the bedrock datum plane contours established in the Design Hydrogeological Report prepared in accordance with Rule .0538(b) of this Section. C&DLF units shall meet the vertical separation requirements of G.S. 130A-295.6(f) in accordance with the effective date and applicability requirements of S.L. 2007-550 s. 9.(b).

(b) In-situ or modified soils making up the upper two feet of separation as required by Sub-Item (a) of this Item, shall 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. One permanent benchmark of known elevation measured from a U.S. Geological Survey benchmark shall 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 shall be performed by a licensed professional land surveyor if required by G.S. 89C. Latitude and longitude, expressed in decimal degrees, shall be indicated at the approximate center of the facility.

(4) Location coordinates. The North Carolina State Plane (NCSP) coordinates shall be established and one of its points shall 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 shall be graded in accordance with the engineering plan prepared in accordance to Rule .0539 of this Section, which is incorporated into the permit to construct in accordance with Rule .0534(b)(1) of this Section, and as follows:

(a) The owner or operator of the C&DLF unit shall have the subgrade inspected by a qualified geologist or engineer when excavation is completed.

(b) The owner or operator of the C&DLF unit shall notify the Division via email no less than 24 hours before subgrade inspection.

(c) Compliance with the requirements of Sub-Item (2)(b) of this Rule shall be in accordance with Rule .0538(b) 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) Other engineering structures. The design of any liners, cap systems, leachate collection systems, and stormwater segregation systems, if required in accordance with the effective dates and applicability of S.L. 2007-550, s. 9.(b) and S.L. 2013-413, s. 59.1, as amended by S.L. 2013-410, s. 47.6, and any other engineering structures proposed by the applicant shall 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 and the rules of this Section shall be included in the plans prepared in accordance with Rule .0539 of this Section.

(7) Sedimentation and erosion control. Structures and measures shall be designed and maintained to manage the rainwater that drains over land from or onto any part of the facility or unit generated by the 24-hour, 25-year storm event, and conform to the requirements of the Sedimentation Control Law (15A NCAC 04) and any required NPDES permits.

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

(9) Maximum capacity, disposal area, and height for applications submitted on or after August 2007. Landfills shall meet the requirements of G.S. 130A-295.6(i) regarding maximum allowed capacity, disposal area and height in accordance with the effective date and applicability requirements of S.L. 2007-550, s. 9.(b).

History Note: *Authority G.S. 130A-294;*
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