15A NCAC 13B .0539 ENGINEERING PLAN FOR C&DLF FACILITIES

(a) Purpose. The engineering plan that is required to be submitted in accordance with Rule .0535 of this Section shall incorporate the detailed plans and specifications relative to the design and performance of the C&DLF's containment and environmental control systems. The engineering plan shall set forth the design parameters and construction requirements for the components of the C&DLF's systems, shall meet the requirements of this Rule, and shall establish the responsibilities of the design engineer. The engineered components shall be described in Rule .0540 of this Section. (b) Responsibilities of the design engineer. The engineering plan shall be prepared by a licensed professional engineer if required by G.S. 89C. The design engineer shall incorporate a statement certifying this fact and bearing his or her seal of registration.

(c) Scope. An engineering plan shall be prepared for the proposed area of development that provides no less than five years of operating capacity and no more than the total facility capacity, consistent with the development phases and design criteria defined in the facility plan. The engineering plan shall contain a report and a set of drawings that represent the engineering design in accordance with Paragraphs (d) and (e) of this Rule.

(d) An engineering report shall contain:

(1) A summary of the facility design that includes:
  (A) a discussion of the analytical methods used to evaluate the design;
  (B) definition of the aspects and conditions of the facility design evaluated by the design engineer and assumptions made;
  (C) a list of technical references used in the evaluation; and
  (D) completion of any applicable location restriction demonstrations in accordance with Rule .0536 of this Section.

(2) A description of the materials and construction practices that conforms to the requirements set forth in Rule .0540 of this Section.

(e) Engineering drawings shall illustrate:

(1) existing conditions: site topography, features, existing disposal areas, roads, and buildings;
(2) grading plans: proposed limits of excavation, subgrade elevations, and intermediate grading for partial construction;
(3) location and feature details of any stormwater segregation systems;
(4) cap system: base and top elevations, landfill gas devices, infiltration barrier, surface water removal, protective and vegetative cover, and details;
(5) temporary and permanent sedimentation and erosion control plans;
(6) vertical separation requirement estimates including:
  (A) Cross-sections, showing borings, which indicate existing ground surface elevations, base grades, seasonal high groundwater table, estimated long-term seasonal high groundwater level in accordance with Rule .0538(b)(2)(E) of this Section, and bedrock level in accordance with Rule .0538(b)(2)(F) of this Section; and
  (B) A map showing the existing ground surface elevation and base grades. The map shall include labeled boring locations which indicate seasonal high groundwater level, estimated long term high groundwater level in accordance with Rule .0538(b)(2)(E) of this Section, and bedrock level in accordance with Rule .0538(b)(2)(F) of this Section.

(f) The engineering plan shall also describe and illustrate additional engineering features and details including the cap system, leachate collection system, and base liner system, if present. A leachate collection system and a liner system shall be required pursuant to G.S. 130A-295.6 in accordance with the effective dates and applicability requirements in 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. Cap systems, leachate collection systems, leachate storage, and base liner systems shall be in accordance with Rules .1620 and .1621 of this Subchapter.

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