

15A NCAC 13B .0504 APPLICATION REQUIREMENTS FOR SANITARY LANDFILLS

A permit for a sanitary landfill shall be based upon a particular stream of identified waste, as set forth in Rule .0504(1)(g)(i) and (ii) of this Section. Any substantial change in the population or area to be served, or in the type, quantity or source of waste shall require a new permit and operation plan, including waste determination procedures where appropriate.

- (1) The following information shall be required for reviewing a site application for a proposed sanitary landfill:
 - (a) An aerial photograph on a scale of at least 1 inch equals 400 feet showing the area within one-fourth mile of the proposed site's boundaries with the following specifically identified:
 - (i) Entire property owned or leased by the person proposing the disposal site;
 - (ii) Land use and zoning;
 - (iii) Location of all homes, industrial buildings, public or private utilities, and roads;
 - (iv) Location of wells, watercourses, dry runs, and other applicable details regarding the general topography; and
 - (v) Flood plains.
 - (b) A map on a scale of at least 1 inch equals 1000 feet showing the area within two miles of the proposed site's boundaries with the following specifically identified:
 - (i) Known ground water users;
 - (ii) Potential or existing sources of ground water and surface water pollution;
 - (iii) Water intakes;
 - (iv) Airport and runways; and
 - (v) Subdivisions.
 - (c) A geological and hydrological study of the site which provides:
 - (i) Soil borings for which the numbers and depths have been confirmed by the Division and lab testing of selected soil samples that provide:
 - (A) standard penetration resistance;
 - (B) particle size analysis;
 - (C) soil classification Unified Soil Classification System;
 - (D) geologic considerations (slopes, solution features, etc.);
 - (E) undisturbed representative geologic samples of the unconfined or confined or semiconfined hydrological units within a depth of 50 feet that provide the following information for each major lithologic units:
 - (I) saturated hydraulic conductivity (or by in situ);
 - (II) volume percent water; and
 - (III) porosity;
 - (F) remolded sample of cover soils that provide:
 - (I) saturated hydraulic conductivity,
 - (II) total porosity,
 - (III) atterberg limits;
 - (G) stratigraphic cross sections identifying hydrogeological units including lithology;
 - (H) tabulation of water table elevations at time of boring, 24 hours, and seven days (The number of cased borings to provide this information shall be confirmed by the Division.); and
 - (I) boring logs;
 - (ii) A boundary plat locating soil borings with accurate horizontal and vertical control which are tied to a permanent onsite bench mark;
 - (iii) A potentiometric map of the surficial aquifer based on stabilized water table elevations; and
 - (iv) A report summarizing the geological and hydrological evaluation.
 - (d) A conceptual design plan presenting special engineering features or considerations which must be included or maintained in site construction, operation, maintenance and closure.
 - (e) Local government approvals:
 - (i) If the site is located within an incorporated city or town, or within the extra-territorial jurisdiction of an incorporated city or town, the approval of the

governing board of the city or town shall be required. Otherwise, the approval of the Board of Commissioners of the county in which the site is located shall be required. Approval may be in the form of either a resolution or a vote on a motion. A copy of the resolution, or the minutes of the meeting where the vote was taken, shall be forwarded to the Division.

- (ii) A letter from the unit of government having zoning jurisdiction over the site which states that the proposal meets all of the requirements of the local zoning ordinance, or that the site is not zoned.
 - (f) A discussion of compliance with siting standards in Rule .0503(1) of this Subchapter.
 - (g) A report indicating the following:
 - (i) population and area to be served;
 - (ii) type, quantity and source of waste;
 - (iii) the equipment that will be used for operating the site;
 - (iv) a proposed groundwater monitoring plan including well location and schematics showing proposed screened interval, depth and construction; and
 - (v) a more detailed geologic report may be required depending on specifics of the site. This report may be based on physical evidence, initially, or due to information obtained from the site plan application.
 - (h) Any other information pertinent to the suitability of the proposed site.
- (2) The following information shall be required for reviewing a construction plan application for a proposed sanitary landfill:
- (a) A map showing existing features to include:
 - (i) existing topography of the site on a scale of at least 1 inch equals 200 feet with five foot contours;
 - (ii) bench marks;
 - (iii) springs;
 - (iv) streams;
 - (v) potential ground water monitoring sites;
 - (vi) pertinent geological features; and
 - (vii) soil boring locations.
 - (b) A grading plan that provides:
 - (i) proposed excavated contours;
 - (ii) soil boring locations;
 - (iii) locations and elevations of dikes or trenches;
 - (iv) designated buffer zones;
 - (v) diversion and controlled removal of surface water from the work areas; and
 - (vi) proposed utilities and structures.
 - (c) A construction plan that provides:
 - (i) engineering design for liners, leachate collections systems;
 - (ii) proposed final contours showing removal of surface water runoff; and
 - (iii) locations of slope drains or other drop structures.
 - (d) An erosion control plan that identifies the following:
 - (i) locations of temporary erosion control measures (sediment basins, stone filters, terraces, silt fences, etc.);
 - (ii) locations of permanent erosion control measures (rip rap, energy dissipators, ditch stabilization, pipe drain, etc.); and
 - (iii) seeding specifications and schedules.
 - (e) Engineering diagrams showing typical sections of:
 - (i) dikes,
 - (ii) trenches,
 - (iii) diversions, and
 - (iv) sediment basins.
 - (f) A minimum of two cross sections per operational area showing:
 - (i) original elevations,
 - (ii) proposed excavated depths,
 - (iii) proposed final elevations,

- (iv) ground water elevation, and
- (v) soil borings.
- (g) Site development showing phases or progression of operation in five-year or ten-year phases of construction and operation.
- (h) A written report that contains the following:
 - (i) A copy of the deed or other legal description of the landfill site that would be sufficient as a description in an instrument of conveyance and property owner's name;
 - (ii) Name of individual responsible for operation and maintenance of the site;
 - (iii) Projected use of land after completion of the sanitary landfill;
 - (iv) Anticipated lifetime of the project;
 - (v) Description of systematic usage of area, operation, orderly development and completion of the sanitary landfill;
 - (vi) Earthwork calculations;
 - (vii) Seeding specifications and schedules;
 - (viii) Calculations for temporary and permanent erosion control measures;
 - (ix) Any narrative necessary to describe compliance with the Sedimentation Pollution Control Act of 1973 (15A NCAC 4);
 - (x) A discussion of compliance with design requirements in Rule .0503(2) of this Section.

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