

**15A NCAC 13B .0504 APPLICATION REQUIREMENTS FOR INDUSTRIAL SOLID WASTE LANDFILLS**

(a) The permit applicant for an industrial solid waste landfill (ISWLF) unit (site) permit shall prepare a site study in accordance with Paragraph (c) of this Rule, and submit the site study to the Division. The Division shall review the site study for a proposed new site prior to consideration of an application for a permit. Following review of the site study, the Division shall notify the applicant in writing that either:

- (1) the site is deemed suitable for establishing an ISWLF unit and the applicant may prepare an application for a permit in accordance with Paragraph (b) of this Rule, as well as any site-specific conditions and design requirements stated in the notification; or
- (2) the site is deemed unsuitable for establishing an ISWLF unit and the reasons that prevent the ISWLF unit from being operated in accordance with Article 9 of Chapter 130A of the General Statutes, the rules of this Subchapter, and any applicable federal laws and regulations.

(b) When the site has been deemed suitable for an ISWLF unit by the Division in accordance with Subparagraph (a)(1) of this Rule, the permit applicant shall submit to the Division one electronic copy of a permit application, which shall contain the plans described in Paragraphs (d) through (f) of this Rule. A permit for a site shall be based upon a particular type and source of waste, as identified in the operation plan required by Paragraph (e) of this Rule.

(c) The site study shall contain the following information:

- (1) An aerial photograph on a scale of at least one inch equals 400 feet showing the area within one-fourth mile of the proposed site's boundaries with the following identified:
  - (A) entire property owned or leased by the person proposing the site;
  - (B) land use and zoning;
  - (C) location of all homes, industrial buildings, public or private utilities, and roads;
  - (D) location of wells, watercourses, dry runs, and other details regarding the general topography; and
  - (E) floodplains.
- (2) A map on a scale of at least one inch equals 1,000 feet showing the area within two miles of the proposed site's boundaries that identifies known groundwater users, potential or existing sources of groundwater and surface water pollution, water intakes, airports and runways, and subdivisions.
- (3) A geological and hydrological study of the site that provides:
  - (A) soil borings for which the numbers, locations, and depths provide an understanding of the subsurface conditions and groundwater flow regime of the uppermost aquifer at the site. The number and depths of borings required will depend on the hydrogeologic characteristics of the site. The borings and lab testing of selected soil samples from the borings shall provide:
    - (i) standard penetration resistance;
    - (ii) particle size analysis;
    - (iii) soil classification using the Unified Soil Classification System;
    - (iv) geologic considerations such as slopes and solution features;
    - (v) undisturbed representative geologic samples of the unconfined or confined or semiconfined hydrological units within a depth of 50 feet that provide for each major lithologic unit the saturated hydraulic conductivity or by in-situ; volume percent water, and porosity; and
    - (vi) remolded sample of cover soils that provide the saturated hydraulic conductivity, total porosity, and atterberg limits;
  - (B) boring logs;
  - (C) stratigraphic cross sections identifying hydrogeologic and lithologic units and stabilized water table elevations;
  - (D) water table information, including:
    - (i) tabulation of water table elevations at time of boring, 24 hours after boring, and seven days after boring;
    - (ii) tabulations of stabilized water table elevations over time in order to develop an understanding of seasonal fluctuations in the water table;
    - (iii) an estimation of the seasonal high water groundwater table, as defined in Rule .0532 of this Section, based on stabilized water table readings, hydrographs of wells in the area, precipitation and other meteorological data, and any other information available; and

- (iv) a description of any natural or man-made activities that have the potential for causing water table fluctuations, including tidal variations, river stage changes, flood pool changes of reservoirs, high volume production wells, and injection wells;
    - (E) a groundwater contour map based on the estimated long-term seasonal high water groundwater table that is superimposed on a topographic map and includes the location of all borings and rock cores and the water table elevations or potentiometric data at each location used to generate the groundwater contours;
    - (F) a topographic map of the site locating soil borings with horizontal and vertical controls that are tied to a permanent onsite benchmark; and
    - (G) a report summarizing the geological and hydrological evaluation.
  - (4) A conceptual design plan for the development of the facility including any special engineering features that the applicant is proposing.
  - (5) A copy of the franchise or local government approval from each unit of local government in whose jurisdiction the site is located in accordance with G.S 130A-294(b1). No franchise or local government approval shall be required for a site used to dispose of waste generated solely by the permit applicant.
  - (6) A letter from the unit of government having zoning jurisdiction over the site that states that the proposal meets all of the requirements of the local zoning ordinance, or that the site is not zoned.
  - (7) A description of how the site complies with the siting standards in Rule .0503(a) of this Section.
  - (8) A report that includes the following information:
    - (A) population and area to be served;
    - (B) type, quantity, and source of waste that will be disposed of at the site;
    - (C) the equipment that will be used for operating the site; and
    - (D) a proposed water quality monitoring plan including surface water sampling locations, well locations, and well schematics showing proposed screened interval, depth, and construction.
  - (9) Letters from both the State Historic Preservation Office and the Natural Heritage Program within the Department of Natural and Cultural Resources stating whether the proposed use of the property will impact the historic sites described in Rule .0503(a)(2) of this Subchapter; State nature and historic preserves described in Rule .0503(a)(3) of this Subchapter; or the endangered or threatened species described in Rule .0503(a)(4) of this Subchapter located at the site.
  - (10) Additional information for activities or features that the owner or operator is proposing that are not otherwise described in this Rule, or that the Division may request if it is necessary to determine compliance with the rules of this Subchapter.
- (d) Construction Plan. An application for a permit for the site shall contain a construction plan that shall include the following information:
- (1) a map showing existing features including existing topography of the site on a scale of at least one inch equals 200 feet with five-foot contours, benchmarks, springs, streams, potential groundwater monitoring sites, pertinent geological features, and soil boring locations;
  - (2) a grading plan that provides proposed excavated contours, soil boring locations, locations and elevations of dikes or trenches, designated buffer zones, diversion and controlled removal of surface water from the work areas, and proposed utilities and structures;
  - (3) a site development plan showing the following:
    - (A) phases or progression of construction and operation in increments of five years up to the life-of-site of the ISWLF;
    - (B) engineering design for liners and leachate collections systems;
    - (C) proposed final contours showing removal of surface water runoff; and
    - (D) locations of slope drains or other drop structures;
  - (4) an erosion control plan that identifies the following:
    - (A) locations of temporary erosion control measures such as sediment basins, stone filters, terraces, or silt fences;
    - (B) locations of permanent erosion control measures such as rip rap, energy dissipators, ditch stabilization, or pipe drains; earthwork calculations; calculations for temporary and permanent erosion control measures; a description of how the site complies with 15A NCAC 04 for sedimentation and erosion control; and

- (C) seeding specifications and schedules;
  - (5) engineering diagrams showing sections of dikes, trenches, diversions, and sediment basins;
  - (6) two cross sections per operational area showing soil borings, original elevations, proposed excavated depths, proposed final elevations, and the seasonal high groundwater table and bedrock datum plane contours in accordance with Rule .0503(b)(4)(C) of this Section; and
  - (7) a description of how the site complies with the design requirements in Rule .0503(b) of this Section.
- (e) Operations Plan. An application for a permit for the site shall contain an operations plan that shall include the following information:
- (1) a copy of the deed for the site property, including the property owner's name, the parcel identification number, and a legal description of the property;
  - (2) name and emergency contact information for the individual responsible for operation, maintenance, and closure of the site;
  - (3) type, quantity, and source of waste that will be disposed of at the site;
  - (4) a description of how the site complies with the operational requirements in Rule .0505 of this Section; and
  - (5) a description of how the site complies with the monitoring requirements of Section .0600 of this Subchapter;
- (f) Closure and Post-Closure Care Plan. An application for a permit for the site shall contain a closure and post-closure plan that shall include the following information:
- (1) a description of the closure of the site, including quantification of the life-of-site, closure and final cover procedures, and projected use of the land after closure;
  - (2) a description of the post-closure care period of the site, including maintenance and monitoring procedures, and a description of how the site will comply with Section .0600 of this Subchapter; and
  - (3) the cost estimate for closure and post-closure activities as required under Section .1800 of this Subchapter.
- (g) If required by G.S. 89C or 89E and not under the purview of another licensed profession, a licensed professional engineer or licensed geologist shall certify the information submitted in accordance with Paragraphs (c) through (f) of this Rule.
- (h) The Division shall review all permit applications in accordance with Rule .0203 of this Subchapter.
- (i) Plans and documents submitted in the permit application in accordance with this Rule shall be incorporated into the permit and the site shall comply with the permit in accordance with Rule .0203(d) of this Subchapter.
- (j) Modifications to the plans. The owner or operator may request to modify plans that were incorporated into the permit by submitting a written request to the Division that includes the modified plan and a demonstration showing how the proposed modifications comply with the rules of this Section. The Division shall respond to the request in writing within the timeline provided in G.S. 130A-295.8(e); and the response shall either approve or deny the request as submitted or request that additional information be submitted for the Division to consider the request. The Division's approval shall be based on whether the modification complies with the rules of this Subchapter. If the Division approves the request as submitted or upon receiving the additional information requested, the Division's written approval and the revised pages of the plan shall be added to the site's operating record. The owner or operator shall not implement the modification until the Division has issued an approval.

*History Note: Authority G.S. 130A 294;  
Eff. April 1, 1982;  
Amended Eff. January 1, 1985;  
Temporary Amendment Eff. October 1, 1987, For a Period of 180 Days to expire on March 29, 1988;  
Amended Eff. July 1, 2013; February 1, 1991; September 1, 1990; March 1, 1988;  
Readopted Eff. January 1, 2021.*