

**15A NCAC 13B .0503 SITING AND DESIGN REQUIREMENTS FOR INDUSTRIAL SOLID WASTE LANDFILLS**

(a) An industrial solid waste landfill (ISWLF) unit (site) shall comply with the following siting requirements for a permit to be issued:

- (1) Floodplain Restrictions: A site shall not be located in the 100-year floodplain in accordance with G.S. 143-215.54(c) and S.L. 2000-150.
- (2) Cultural Resources Restrictions: A site shall not damage or destroy a property of archaeological or historical significance that has been listed on the National Register of Historic Places or included on the Study List for the Register pursuant to 07 NCAC 04R .0206 and .0300.
- (3) State Nature and Historic Preserve Restrictions: A site shall not have an adverse impact on any component included in the State Nature and Historic Preserve pursuant to G.S. 143-260.10.
- (4) Endangered and Threatened Species Restrictions: A site shall not jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of a critical habitat, protected under the Federal Endangered Species Act of 1973, Public Law 93-205, as amended.
- (5) A site disposing of putrescible wastes shall not be located within 10,000 feet of an airport runway used by turbojet aircraft or within 5,000 feet of an airport runway used by piston-type aircraft; and
- (6) A site shall have available soils for cover either on-site or from off-site.

(b) A site shall comply with the following design requirements for a permit to be issued:

- (1) If the site accepts waste types that are expected to generate explosive gases, the concentration of explosive gases generated by the site shall not exceed:
  - (A) twenty-five percent of the lower explosive limit for the explosive gases in on-site structures, excluding gas control or recovery system components; and
  - (B) the lower explosive limit for the explosive gases at the property boundary;
- (2) A site shall be secured to prevent unauthorized entry by means such as gates, chains, berms, and fences.
- (3) A site shall meet the following surface water requirements:
  - (A) a site shall not cause a discharge of pollutants into waters of the State that is in violation of the requirements of the National Pollutant Discharge Elimination System (NPDES), under Section 402 of the Clean Water Act, as amended, or that is in violation of 15A NCAC 02B;
  - (B) a site shall not cause a discharge of dredged material or fill material into waters of the State that is in violation of the requirements under Section 404 of the Clean Water Act, as amended, or G.S. 113A, 130A, or 143;
  - (C) a site shall not cause non-point source pollution of waters of the State that violates 15A NCAC 02B; and
  - (D) a site shall comply with Rule .0602 of this Subchapter.
- (4) A site shall meet the following groundwater protection requirements:
  - (A) A site shall comply with G.S. 130A-295.6(f).
  - (B) A site that has not previously been permitted by the Division for an ISWLF unit, or a lateral expansion of an existing permitted site, shall be designed with a leachate collection system, a closure cap system, and a composite liner system consisting of an upper component and lower component. The upper component of the composite liner system shall consist of a flexible membrane liner (FML) no less than 30 mil thick. FML components consisting of high-density polyethylene (HDPE) shall be no less than 60 mil thick. The lower component of the composite liner system shall consist of a layer of compacted soil no less than two feet thick with a hydraulic conductivity of no more than  $1 \times 10^{-7}$  centimeters per second. The FML component shall be installed in direct and uniform contact with the compacted soil component.
  - (C) An owner or operator applying for a permit for a site that has not previously been permitted by the Division as an ISWLF unit, or a lateral expansion of an existing permitted site, may submit a request to the Division to be exempt from the requirements of Part (B) of this Subparagraph. The request shall be submitted in writing with the proposed site information required to be submitted in accordance with Rule .0504(c) of this Section. The request shall include a description of the types of waste proposed to be disposed of at the site, and a proposed site design that demonstrates that the post-

settlement bottom elevation of the waste will be a minimum of four feet above both the seasonal high groundwater table, as defined in Rule .0532 of this Section, and the bedrock datum plane contours as required by G.S. 130A-295.6(f). The site design shall also demonstrate that the groundwater quality standards or interim maximum allowable contaminant levels established under 15A NCAC 02L will not be exceeded in the uppermost aquifer at the compliance boundary established by the Division in accordance with 15A NCAC 02L. The site design shall be based upon modeling methods that include the hydrogeologic characteristics of the site and surrounding lands; the climatic factors of the area; and the volume and physical and chemical characteristics of the leachate. The Division shall approve the request if the request and the proposed site design comply with Article 9 of Chapter 130A of the General Statutes and the rules of this Subchapter.

- (D) A site shall comply with Rule .0601 of this Subchapter.
- (5) A site shall not engage in open burning of solid waste unless approval has been obtained from the Division, and from the Division of Air Quality in accordance with 15A NCAC 02D .1900, and from the local government prior to any burning activity.
- (6) A site shall meet the following buffer requirements:
  - (A) A site that received site study approval from the Division in accordance with Rule .0504(a)(1) of this Section prior to the readopted effective date of this Rule shall maintain a buffer of 50 feet between all property lines and disposal areas. A site that receives site study approval after the readopted effective date of this Rule shall maintain a buffer of no less than 200 feet between all property lines and disposal areas;
  - (B) A site shall have a buffer of no less than 500 feet between the disposal area and residential structures and supply wells existing at the time that the Division issues the site study approval in accordance with Rule .0504(a)(1) of this Section; and
  - (C) A site shall have a buffer of no less than 50 feet between the disposal area and any stream, river, lake, pond, or other waters of the State as defined in G.S. 143-212; and
- (7) A site shall comply with the requirements in 15A NCAC 04 for sedimentation and erosion control.

*History Note: Authority G.S. 130A-294;  
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Amended Eff. October 1, 1995; January 4, 1993; February 1, 1991; September 1, 1990;  
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