

### **15A NCAC 13B .0503 SITING AND DESIGN REQUIREMENTS FOR DISPOSAL SITES**

Disposal sites shall comply with the following requirements in order for a permit to be issued:

- (1) A site shall meet the following siting requirements:
  - (a) A site located in a floodplain shall not restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain or result in washout of solid waste so as to pose a hazard to human life, wildlife or land or water resources.
  - (b) A site shall be located in consideration of the following:
    - (i) a site shall not cause or contribute to the taking of any endangered or threatened species of plants, fish or wildlife;
    - (ii) a site shall not result in the destruction or adverse modification of the critical habitat of endangered or threatened species as identified in 50 C.F.R. Part 17 which is hereby incorporated by reference including any subsequent amendments and editions. This information is available for inspection at the Department of Environment, Health, and Natural Resources, Division of Solid Waste Management, 401 Oberlin Road, Raleigh, North Carolina 27605 where copies can be obtained at no cost;
    - (iii) a site shall not damage or destroy an archaeological or historical site; and
    - (iv) a site shall not cause an adverse impact on a state park, recreation or scenic area, or any other lands included in the state nature and historic preserve.
  - (c) A new 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
  - (d) A site shall have available adequate suitable soils for cover either on-site or from off-site.
- (2) A site shall meet the following design requirements:
  - (a) The concentration of explosive gases generated by the site shall not exceed:
    - (i) twenty-five percent of the limit for the gases in site structures (excluding gas control or recovery system components); and
    - (ii) the lower explosive limit for the gases at the property boundary;
  - (b) A site shall not allow uncontrolled public access so as to expose the public to potential health and safety hazards at the disposal site;
  - (c) A site shall meet the following surface water requirements:
    - (i) 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 standards promulgated under G.S. 143-214.1 and G.S. 143-215;
    - (ii) 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 that is in violation of any state requirements regulating the discharge of dredged or fill material into waters of the state, including wetlands; and
    - (iii) A site shall not cause non-point source pollution of waters of the state that violates assigned water quality standards.
  - (d) A site shall meet the following ground water requirements:
    - (i) A site, except for land clearing and inert debris landfills subject to Rule .0564(8)(e) of this Section, shall be designed so that the bottom elevation of solid waste will be a minimum of four feet above the seasonal high water table;
    - (ii) Operators of new industrial solid waste landfills, lateral expansions of existing industrial solid waste landfills, and industrial solid waste landfills receiving solid waste on or after January 1, 1998 shall submit to the Division a design which satisfies one of the following criteria:
      - (A) a design that will ensure that the ground water standards established under 15A NCAC 2L will not be exceeded in the uppermost aquifer at the compliance boundary established by the Division in accordance with 15A NCAC 2L. The design shall be based upon modeling methods acceptable to the Division, which shall include, at a minimum, the following factors:
        - (I) the hydrogeologic characteristics of the facility and surrounding lands;

- (II) the climatic factors of the area; and
- (III) the volume and physical and chemical characteristics of the leachate;  
or
- (B) a design with a leachate collection system, a closure cap system, and a composite liner system consisting of two components: the upper component shall consist of a minimum 30-mil flexible membrane (FML), and the lower components shall consist of at least a two-foot layer of compacted soil with a hydraulic conductivity of no more than  $1 \times 10^{-7}$  cm/sec. FML components consisting of high density polyethylene (HDPE) shall be at least 60-mil thick. The FML component shall be installed in direct and uniform contact with the compacted soil component.
- (iii) The Division reserves the right to require an applicant to submit a liner design if the groundwater protection demonstration is Sub-item (ii) of this Paragraph is not satisfactory.
- (iv) Industrial solid waste landfills shall comply with ground water standards established under 15A NCAC 2L at the compliance boundary.
- (e) A site shall not engage in open burning of solid waste;
- (f) A site, except a land clearing and inert debris landfill, shall meet the following buffer requirements:
  - (i) A 50-foot minimum buffer between all property lines and disposal areas;
  - (ii) A 500-foot minimum buffer between private dwellings and wells and disposal areas; and
  - (iii) A 50-foot minimum buffer between streams and rivers and disposal areas; and
- (g) Requirements of the Sedimentation Pollution Control Law (15A NCAC 4) shall be met.

*History Note: Authority G.S. 130A-294;  
Eff. April 1, 1982;  
Amended Eff. October 1, 1995; January 4, 1993; February 1, 1991; September 1, 1990.*