

## **15A NCAC 13B .1619 FACILITY PLAN**

(a) Purpose. As required under Rule .1617 of this Section, a permit applicant shall prepare a facility plan which meets the requirements of this Rule.

(b) Scope.

- (1) The facility plan defines comprehensive development of the property proposed for permit or described in the permit of an existing facility. The plan includes a set of drawings and a report which present the long-term, general design concepts related to construction, operation, and closure of the MSWLF unit(s), including leachate management. The scope of the plan spans the active life of the MSWLF unit(s). Additional solid waste management facilities located at the MSWLF facility shall be identified in the plan and shall meet the requirements of this Subchapter. The facility plan defines the waste stream proposed for management at the MSWLF facility. If different types of landfill units or non-disposal facilities are included in the facility design, the plan must describe general waste acceptance procedures.
- (2) The areal limits of the MSWLF unit(s), total capacity of the MSWLF unit(s), and the proposed waste stream shall be consistent with the Division's approval set forth:
  - (A) In accordance with Rule .1618 (a)(1) of this Section for a new facility; or
  - (B) In accordance with the current permit for an existing facility applying for permit renewal.

(c) Use of Terms. The terminology used in describing areas of the landfill unit shall be defined in the facility plan and shall be used consistently throughout a permit application. The Division recommends the use of the following terms:

- (1) A "phase" is an area constructed with a base liner system that provides no more than approximately five years of operating capacity.
- (2) A "cell" is a subdivision of a phase which describes modular or partial construction.
- (3) A "subcell" is a subdivision of a cell which describes leachate and stormwater management for active or inactive areas of the constructed MSWLF.

(d) Facility Drawings. The facility plan shall include the following drawings:

- (1) Site Development. The two drawings which plot site development shall be prepared on a topographic map representative of existing site conditions; the map shall locate the physical features referenced in Rule .1622 of this Section and shall incorporate a survey locating all property boundaries for the proposed landfill facility certified by an individual licensed to practice land surveying in the State of North Carolina.
  - (A) Landfill units and leachate facilities. This drawing shall delineate the areal limits of all landfill units and leachate facilities and incorporate the buffer requirements set forth in Subparagraph (b)(3) of Rule .1624.
  - (B) All facilities. This drawing shall locate all solid waste management facilities and facility infrastructure, including landfill units and leachate facilities.
- (2) Landfill Construction. All on-site grading activities related to the construction and operation of the MSWLF unit(s) shall be illustrated in facility drawings which:
  - (A) Delineate the limits of grading, including borrow and stockpile areas;
  - (B) Define phases of development which do not exceed approximately five years of operating capacity;
  - (C) Propose base grades for the MSWLF unit(s);
  - (D) Delineate the location of access roads, sedimentation basins, leachate pipeline and storage or treatment facilities and other structures related to the operation of the MSWLF unit; and
  - (E) Propose final contours for the MSWLF unit(s) and facility features for closure.
- (3) Landfill Operation. The following information related to the long-term operation of the MSWLF units shall be included in facility drawings:
  - (A) General grade and flow direction for the drainage layer component of the leachate collection system;
  - (B) Size, location, and general grade for the leachate piping system, including on-site pipelines to leachate management facilities;
  - (C) Proposed transitional contours for each phase of development, including operational grades for existing phase(s) and construction grading for the new phase; and
  - (D) If included in the design, stormwater segregation features and details for inactive landfill subcells.

(e) Facility Report. The facility plan shall include the following information:

- (1) Waste stream. A discussion of the characteristics of the wastes received at the facility and facility specific management plans shall incorporate:
  - (A) The types of waste specified for disposal;

- (B) Average monthly disposal rates and estimated variance;
  - (C) The area served by the facility;
  - (D) Procedures for segregated management at different on-site facilities; and
  - (E) Equipment requirements for operation of the MSWLF unit.
- (2) Landfill Capacity. An analysis of landfill capacity and soil resources shall be performed.
- (A) The data and assumptions used in the analysis shall be:
    - (i) Consistent with the facility drawings and disposal rates specified in the facility plan; and
    - (ii) Representative of operational requirements and conditions.
  - (B) The conclusions shall provide accurate volumetric estimates of:
    - (i) Total operating capacity;
    - (ii) Operating capacity for each phase of development;
    - (iii) In-place ratio of waste to soil;
    - (iv) Available soil resources from on-site or specific off-site sources;
    - (v) Required quantities of soil for landfill construction, operation, and closure; and
    - (vi) The estimated operating life of all MSWLF units in years.
- (3) Containment and environmental control systems. A general description of the systems designed for proper landfill operation, system components, and corresponding functions shall be provided.
- (4) Leachate Management. An analysis of the leachate management requirements and plans for the MSWLF facility shall incorporate the information required under this Subparagraph.
- (A) The performance of and design concepts for the leachate collection system within active areas of the MSWLF unit and any storm water segregation included in the engineering design shall be described.
  - (B) Normal operating conditions. Normal operating conditions shall be defined and must consider:
    - (i) Average monthly values for leachate generation representative of the landfill's environment and operation using:
      - (I) Empirically derived estimates; or
      - (II) For landfill expansions, actual leachate generation data from the existing landfill.
    - (ii) Surge volumes generated by storm events.
  - (C) Leachate management system. A description of the leachate management system components and their engineered function shall be provided, including:
    - (i) Leachate pipeline operating capacity;
    - (ii) Capacity of the storage and if applicable, the treatment facilities; and
    - (iii) Final disposal plans and applicable discharge limits, including documented prior approval of the waste water treatment plant which may be designated in the plan.
  - (D) A contingency plan shall be prepared for storm surges or other considerations exceeding design parameters for the storage or treatment facilities.
- (5) Special engineering features.

*History Note: Authority G.S. 130A-294;  
Eff. October 9, 1993.*