

15A NCAC 13B .0835 SEPTAGE LAND APPLICATION SITE PERMITS

(a) No person shall establish, or allow to be established on his land, a septage management facility to, treat, manage, store, or dispose of septage, or any component of septage, unless a permit has been obtained from the Division. Disposal of septage by trenching or burial is prohibited under the rules of this Section.

(b) Any person that has not operated as a septage land application site during the previous calendar year shall receive at least three hours of new land application site operator training from the Division prior to receiving a permit to operate a septage land application site.

(c) To apply for a permit for a septage land application site, the following information shall be submitted to the Division:

- (1) Location of the site;
- (2) Name, address, and phone number of:
 - (A) the applicant;
 - (B) the land owner or the owner's legal representative in control of the site; and
 - (C) the proposed operator;
- (3) Written authorization to operate a septage land application site signed by each landowner (if other than the permit holder) or his legal representative;
- (4) Types of septage (as defined in G.S. 130A-290) and the proposed annual volume of each type of septage proposed for land application per acre, based on the nutrient management plan submitted.
- (5) Substances other than septage previously disposed of at this location, and the amounts of those substances;
- (6) Aerial photography extending for a distance of at least 2500 feet in all directions from the site, with site property boundaries accurately depicted. Photograph scale shall be 1" = 400 feet or less;
- (7) Alternative plan for the detention or disposal of septage, during adverse weather conditions;
- (8) Treatment method for each type of septage to be discharged and the permit number of any treatment facilities;
- (9) Vicinity map (county road map) showing the site location;
- (10) A written report that documents compliance with Rule .0837 of this Section, including, but not limited to the following: If required by G.S. 89F, G.S. 89C and G.S. 89E, a licensed soil scientist, professional engineer, or licensed geologist shall prepare these documents. [Note: The North Carolina Board of Licensing of Soil Scientists, Board of Examiners for Engineers and Surveyors and the Board of Licensing of Geologists has determined, via letters dated November 16, 2009, March 11, 2010 and January 7, 2010, that preparation of documents pursuant to this Paragraph constitutes soil science, practicing engineering, or geology under G.S. 89F, G.S. 89C and G.S. 89E.]
 - (A) A representative soils analysis (i.e., Standard Soil Fertility Analysis), conducted within the last six months, on each proposed field of each proposed land application site. The Standard Soil Fertility Analysis shall include, but is not necessarily limited to: acidity, base saturation (by calculation), calcium, cation exchange capacity, exchangeable sodium percentage (by calculation), magnesium, manganese, percent humic matter, pH, phosphorus, potassium, and sodium;
 - (B) A total metal analysis for each proposed field shall be conducted for arsenic, cadmium, copper, lead, nickel, selenium, and zinc. A North Carolina Department of Agriculture & Consumer Services (NCSA&CS) mehlich-3 extraction is an acceptable substitute for a total metal analysis. Mercury shall be sampled if the applicant proposes to land apply domestic or industrial or commercial treatment plant septage, or if warranted by previous site use;
 - (C) Field description of soil profile(s), based on examinations of excavation pits and auger borings, within four feet of the land surface or to bedrock describing the following parameters by individual diagnostic horizons: thickness of the horizon; texture; color and other diagnostic features; structure; internal drainage; depth, thickness, and type of restrictive horizon(s); and presence or absence and depth of evidence of any seasonal high water table. Applicants may be required to dig pits when necessary for proper evaluation of the soils at the site;
 - (D) A soil map, scale 1" = 400 feet or less, delineating major soil mapping units within each proposed land application site and showing all physical features, location of pits and auger borings, applicable setbacks, legends, scale, and a north arrow;
 - (E) If the annual application rate is proposed to exceed 125,000 gallons per acre per year field descriptions to a depth of six feet, shall be required; and

- (F) Global Positioning System (GPS) data compatible with the Department's datalogger shall be provided for proposed sites 30 acres or more in size.
- (11) Applicants proposing to land apply 200,000 gallons per acre per year or more shall provide a plan for monitoring soil moisture levels and the depth to seasonal wetness to determine when land application can occur without impacting ground water or hydraulic overloading. The plan shall include recommendations concerning annual and instantaneous loading rates of liquids, solids, other wastewater constituents and amendments based on in-situ measurement of saturated hydraulic conductivity in the most restrictive horizon. If required by G.S. 89C, G.S. 89F and G.S. 89E, a professional engineer, licensed soil scientist or licensed geologist shall prepare these documents. [Note: The North Carolina Board of Examiners for Engineers and Surveyors, Board of Licensing of Soil Scientists and the Board of Licensing of Geologists has determined, via letters dated March 11, 2010, November 16, 2009 and January 7, 2010, that preparation of documents pursuant to this Paragraph constitutes practicing engineering, soil science or geology, under G.S. 89C, G.S. 89F and G.S. 89E.]
- (12) Nutrient management plan, prepared by a Technical Specialist, including at least the following:
 - (A) Crops that will be planted on the site, including cover crops, and where each crop will be planted. Crop planting locations shall be depicted on an aerial photograph or on a plat map (scale 1" = 400 feet or less);
 - (B) Nitrogen needs of the crops based on the realistic yield expectations for the soils on the site, and crop management practices proposed;
 - (C) Crop stand density required to meet the realistic yield expectations for the proposed crop;
 - (D) Approximate crop planting times and the seeding or sprigging rates for crops to be established;
 - (E) Crop harvest frequency appropriate for the proposed realistic yield expectations and nitrogen needs, and approximate crop harvest times;
 - (F) Approximate monthly discharge rate to match the nitrogen needs and potential uptake of the crop;
 - (G) Sites proposed to receive more than 50,000 gallons per acre per year of domestic septage, or domestic or industrial or commercial treatment plant septage shall include nitrogen carry over when determining annual application rates;
 - (H) Weed control recommendations;
 - (I) Crop use or removal;
 - (J) Results from at least four samples of treated septage if the application is proposing an increased application rate for the land application of septage treated to reduce nutrients;
 - (K) A Technical Specialist is not required for nutrient management plans for subsequent applications that do not contain changes that would affect nutrient uptake; and
 - (L) All nutrient management plans shall bear the signature of the site operator.
- (13) Application rates for sites proposed to receive treated septage shall be determined based on the most limiting nutrient;
- (14) Erosion and runoff management plan showing:
 - (A) Buffer locations and widths based on the direction and amount of slope adjacent to the land application site;
 - (B) Vegetation type and stand density in the buffer areas; and
 - (C) Buffer maintenance fertility requirements.
- (15) Proposed land application method,
- (16) Proposed distribution plan if required in Paragraph (e) of Rule .0837 of this Section;
- (17) Sites proposing to use spray irrigation as a land application method shall include:
 - (A) The location of all fixed irrigation heads or the location of traveling gun irrigation lanes;
 - (B) Irrigation head spacing and traveling gun lane spacing shall be determined based on standards in NC Cooperative Extension Documents AG-553-6 and AG-553-7 or other similar publications;
 - (C) The size of all spray nozzles;
 - (D) System operating pressure at the irrigation head;
 - (E) Calculation of the wettable acres vs. permitted acreage;
 - (F) Calibration methods and frequency; and

- (G) Irrigation system operation and maintenance plan.
- (18) Demonstration from the appropriate State or Federal Government agency that the land application site complies with Paragraph (g) of Rule .0837 of this if any part of the site specified for land application is not agricultural land;
 - (19) The date, location, number of hours, and provider of annual septage land application site operator training required in accordance with G.S. 130A-291.3(b);
 - (20) Technical information pertinent to the suitability of the proposed site;
 - (21) An applicant who proposes to land apply septage, as defined in G.S. 130A-290, on a public contact site, shall provide the Division evidence of adequate public notice and the applicant shall have successfully completed the Land Application of Residuals and Biosolids Course and maintain a Land Application of Residuals Certificate given by the Department of Environment and Natural Resources; and
 - (22) An applicant who proposes to land apply commercial/industrial treatment plant septage or domestic treatment plant septage, as defined in G.S. 130A-290, shall have successfully completed the Land Application of Residuals and Biosolids Course and maintain a Land Application of Residuals Certificate given by the Department of Environment and Natural Resources; and
 - (23) An applicant who proposes to land apply septage, as defined in G.S. 130A-290, in excess of 50,000 gallons per acre per year shall provide the Division with evidence of adequate public notice which shall at a minimum be publication in a local newspaper, shall have successfully completed the Land Application of Residuals and Biosolids Course and maintain a Land Application of Residuals Certificate issued by the Department of Environment and Natural Resources.
- (d) Application rates for septage in excess of 50,000 gallons per acre per year and permits to land apply domestic, or industrial or commercial treatment plant septage shall not be granted to persons who have not demonstrated that they can properly operate a septage land application site for at least a 12 month period.
- (e) Applications shall be submitted to the Division of Waste Management, Solid Waste Section, 1646 Mail Service Center, Raleigh NC 27699-1646. Applications for permits will not be reviewed until all parts of the application have been completed and submitted to the Division.
- (f) Applications for sites or treatment methods which do not meet the standards in accordance with this Section shall be denied.
- (g) Applications for renewal permits shall be submitted to the Division at least 90 days prior to the expiration date of the permit. The Division shall notify permit holders of facility permit expiration dates 120 days prior to permit expiration.
- (h) Applications for permit modification shall be required for the following changes:
- (1) Permitted area or field boundaries;
 - (2) Property ownership;
 - (3) Annual application rates;
 - (4) Receiver crop; or
 - (5) Types of septage discharged.
- (i) Applications for renewal permits submitted in accordance with Paragraph (g) of this Rule and applications for permit modifications shall not be required to resubmit the information required in Subparagraphs (c)(6), (8), (9), (10), (16), (17), and (18) unless changes are made in those plans.
- (j) Septage land application site permits are not transferable.
- (k) Maximum permit duration including renewals is five years.
- (l) Issuance of a permit does not relieve the permit holder of the responsibility of obtaining applicable zoning approvals prior to operation of the site.

*History Note: Authority G.S. 130A-291.1;
Eff. April 1, 2010.*