

LAWS AND RULES
FOR
SEWAGE TREATMENT, AND
DISPOSAL SYSTEMS

15A NCAC 18A .1900



NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION

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**ARTICLE 11 OF CHAPTER 130A
OF THE GENERAL STATUTES OF NORTH CAROLINA**

WASTEWATER SYSTEMS

§ 130A-333. **Purpose.**

The General Assembly finds and declares that continued installation, at a rapidly and constantly accelerating rate, of septic tank systems and other types of wastewater systems in a faulty or improper manner and in areas where unsuitable soil and population density adversely affect the efficiency and functioning of these systems, has a detrimental affect on the public health and environment through contamination of land, groundwater and surface waters. Recognizing, however, that wastewater can be rendered ecologically safe and the public health protected if methods of wastewater collection, treatment and disposal are properly regulated and recognizing that wastewater collection, treatment and disposal will continue to be necessary to meet the needs of an expanding population, the General Assembly intends to ensure the regulation of wastewater collection, treatment and disposal systems so that these systems may continue to be used, where appropriate, without jeopardizing the public health.

§ 130A-334. **Definitions.**

The following definitions shall apply throughout this Article:

- (1) "Construction" means any work at the site of placement done for the purpose of preparing a residence, place of business or place of public assembly for initial occupancy, or subsequent additions or modifications which increase sewage flow.
- (2) Repealed by Session Laws 1985, c. 462, s. 18.
- (2a) "Industrial process wastewater" means any water-carried waste resulting from any process of industry, manufacture, trade, or business.
- (3) "Location" means the initial placement for occupancy of a residence, place of business, or place of public assembly.
- (3)(a) "Maintenance" means normal or routine maintenance including replacement of broken pipes, cleaning, or adjustment to an existing wastewater system.
- (4), (5) Repealed by Session Laws 1985, c. 462, s. 18.
- (6) "Place of business" means a store, warehouse, manufacturing establishment, place of amusement or recreation, service station, office building, or any other place where people work.
- (7) "Place of public assembly" means a fairground, auditorium, stadium, church, campground, theater, or any other place where people assemble.
- (7a) "Plat" mean a property survey prepared by a registered land surveyor, drawn to a scale of one inch equals no more than 60 feet, that includes: the specific location of the proposed facility and appurtenances, the site for the proposed wastewater system, and the location of water supplies and surface waters. 'Plat' also means, for subdivision lots approved by the local planning authority and recorded with the county register of deeds, a copy of the recorded subdivisions plat that is accompanied by a site plan that is drawn to scale.
- (7b) "Pretreatment" manes any biological, chemical or physical process or system for improving wastewater quality and reducing wastewater constituents prior to final treatment and disposal in a subsurface wastewater system and includes but is not limited to aeration, clarification, digestion, disinfection, filtration, separation, and settling.
- (8) "Public or community wastewater system" means a single system of wastewater collection, treatment, and disposal owned and operated by a sanitary district, a metropolitan sewage district, a water and sewer authority, a county or municipality or a public utility.
- (9) "Relocation" means the displacement of a residence or place of business from one site to another.
- (9a) "Repair" means the extension, alteration, replacement, or relocation of existing components of a wastewater system.
- (10) "Residence" means a private home, dwelling unit in a multiple family structure, hotel, motel, summer camp, labor work camp, manufactured home, institution, or any other place where people reside.
- (11) Repealed by Session Law 1992, c. 944, s. 3, effective July 14, 1992.
- (12) "Septic tank system" means a subsurface wastewater system consisting of a settling tank and a subsurface disposal field.
- (13) "Sewage" means the liquid and solid human body waste, and liquid waste generated by water-using fixtures and appliances, including those associated with foodhandling. The term does not include industrial process wastewater or sewage that is combined with industrial process wastewater.

- (13a) "Site plan" means a drawing not necessarily drawn to scale that shows the existing and proposed property lines with dimensions, the location of the facility and appurtenances, the site for the proposed wastewater system, and the location of water supplies and surface waters.
- (14) "Wastewater" means any sewage or industrial process wastewater discharged, transmitted, or collected from a residence, place of business, place of public assembly, or other places into a wastewater system.
- (15) "Wastewater system" means a system of wastewater collection, treatment and disposal, including a privy, septic tank system, public or community wastewater system, wastewater reuse or recycle system, mechanical or biological wastewater treatment system, any other similar system, and any chemical toilet used only for human waste.

§ 130A-335 **Wastewater collection, treatment and disposal; rules.**

(a) A person owning or controlling a residence, place of business or a place of public assembly shall provide an approved wastewater system. A wastewater system may include components for collection, treatment and disposal of wastewater.

(b) All wastewater systems shall be regulated by the Department under rules adopted by the Commission except for the following wastewater systems that shall be regulated by the Department under rules adopted by the Environmental Management Commission:

- (1) Wastewater collection, treatment and disposal systems designed to discharge effluent to the land surface or surface waters.
- (2) Wastewater systems designed for groundwater remediation, groundwater injection, or landfill leachate collection and disposal.
- (3) Wastewater systems designed for the complete recycle or reuse of industrial process wastewater.

(c) A wastewater system subject to approval under rules of the Commission shall be reviewed and approved under rules of a local board of health in the following circumstances:

- (1) The local board of health, on its own motion, has requested the Department to review its proposed rules concerning wastewater systems; and
- (2) The local board of health has adopted by reference the wastewater system rules adopted by the Commission, with any more stringent modifications or additions deemed necessary by the local board of health to protect the public health; and
- (3) The Department has found that the rules of the local board of health concerning wastewater collection, treatment and disposal systems are at least as stringent as rules adopted by the Commission and are sufficient and necessary to safeguard the public health.

(d) The Department may, upon its own motion, upon the request of a local board of health or upon the request of a citizen of an affected county, review its findings under subsection (c) of this section. The Department shall review its findings under subsection (c) of this section upon modification by the Commission of the rules applicable to wastewater systems. The Department may deny, suspend, or revoke the approval of local board of health wastewater system rules upon a finding that the local wastewater rules are not as stringent as rules adopted by the Commission, are not sufficient and necessary to safeguard the public health, or are not being enforced. Suspension and revocation of approval shall be in accordance with G.S. 130A-23.

(e) The rules of the Commission and the rules of the local board of health shall address at least the following: Wastewater characteristics; Design unit; Design capacity; Design volume; Criteria for the design, installation, operation, maintenance and performance of wastewater collection, treatment and disposal systems; Soil morphology and drainage; Topography and landscape position; Depth to seasonally high water table, rock, and water impeding formations; Proximity to water supply wells, shellfish waters, estuaries, marshes, wetlands, areas subject to frequent flooding, streams, lakes, swamps, and other bodies of surface or ground waters; Density of wastewater collection, treatment and disposal systems in a geographical area; Requirements for issuance, suspension and revocation of permits; and Other factors which affect the effective operation and performance of wastewater collection, treatment and disposal systems. The rules regarding required design capacity and required design volume for wastewater systems shall provide that exceptions may be granted upon a showing that a system is adequate to meet actual daily water consumption.

(f) The rules of the Commission and the rules of the local board of health shall classify systems of wastewater collection, treatment and disposal according to size, type of treatment and any other appropriate factors. The rules shall provide construction requirements, including pretreatment and system control requirements, standards for operation, maintenance, monitoring, reporting, and ownership requirements for each classification of systems of wastewater collection, treatment and disposal in order to prevent, as far as reasonably possible, any contamination of the land, groundwater and surface waters. The Department and local health departments may impose conditions on the issuance of permits and may revoke the permits for failure of the system to satisfy the conditions, the rules, or this Article. Permits other than improvement permits shall be valid for a period prescribed by rule. Improvement permits shall be valid upon a showing satisfactory to the Department or the local health department

that the site and soil conditions are unaltered, that the facility, design wastewater flow, and wastewater characteristics are not increased, and that a wastewater system can be installed that meets the permitting requirements in effect on the date the improvement permit was issued. Improvement permits for which a plat is provided shall be valid without expiration. Improvement permits for which a site plan is provided shall be valid for five years. The period of time for which the permit is valid and a statement that the permit is subject to revocation if the site plan or plat, whichever is applicable, or the intended use changes shall be displayed prominently on both the application form for the permit and the permit.

(f1) A preconstruction conference with the owner or developer, or an agent of the owner or developer, and a representative of the local health department shall be required for any authorization for wastewater system construction issued with an improvement permit under G.S. 130A-336 when the authorization is greater than five years old. Following the conference, the local health department shall issue a revised authorization for wastewater system construction that includes current technology that can reasonably be expected to improve the performance of the system.

(f1) For each septic tank system that is designed to treat 3,000 gallons per day or less of sewage, rules adopted pursuant to subsection (f) of this section shall require the use of an effluent filter to reduce the total suspended solids entering the drainfield and the use of an access device for each compartment of the septic tank to provide access to the compartment in order to facilitate maintenance of the septic tank. The Commission shall not adopt specifications for the effluent filter and access device that exceed the requirements of G.S. 130A-335.1. Neither this section nor G.S. 130A-335.1 shall be construed to prohibit the use of an effluent filter or access device that exceeds the requirements of G.S. 130A-335.1. The Department shall approve effluent filters that meet the requirements of this section, G.S. 130A-335.1, and rules adopted by the Commission.

(g) Prior to denial of an improvement permit, the local health department shall advise the applicant of possible site modifications or alternative systems, and shall provide a brief description of those systems. When an improvement permit is denied, the local health department shall issue the site evaluation in writing stating the reasons for the unsuitable classification. The evaluation shall also inform the applicant of the right to an informal review by the Department, the right to appeal under G.S. 130A-24, and to have the appeal held in the county in which the site for which the improvement permit was requested is located.

(h) Except as provided in this subsection, a chemical or portable toilets may be placed at any location where the chemical or portable toilet can be operated and maintained under sanitary conditions. A chemical or portable toilet shall not be used as a replacement or substitute for a water closet or urinal where a water closet or urinal connected to a permanent wastewater treatment system is required by the North Carolina State Building Code, except that a chemical or portable toilet may be used to supplement a water closet or urinal during periods of peak use. A chemical or portable toilet shall not be used as an alternative to the repair of a water closet, urinal, or wastewater treatment system. It shall be unlawful to discharge sewage or other waste from a chemical or portable toilet used for human waste except into a wastewater system that has been approved by the Department under rules adopted by the Commission or by the Environmental Management Commission or at a site that is permitted by the Department under G.S. 130A-291.1.

§ 130A-335.1 **Effluent filters and access devices for certain septic tank systems.**

(a) The manufacturer of each septic tank to be installed in this State as a part of a septic tank system that is designed to treat 3,000 gallons per day or less of sewage shall provide an effluent filter approved by the Department pursuant to the requirements of G.S. 130A-335, this section, and rules adopted by the Commission. The person who installs the septic tank system shall install the effluent filter as a part of the septic tank system in accordance with the specifications provided by the manufacturer of the effluent filter. An effluent filter shall:

- (1) Be made of materials that are capable of withstanding the corrosives to which septic tank systems are normally subject.
- (2) Prevent solid material larger than one-sixteenth of an inch, as measured along the shortest axis of the material, from entering the drainfield.
- (3) Be designed and constructed to allow for routine maintenance.
- (4) Be designed and constructed so as not to require maintenance more frequently than once in any three-year period under normally anticipated use.

(b) The access device required by G.S. 130A-335(f) shall provide access to each compartment of a septic tank for inspection and maintenance either by means of an opening in the top of the septic tank or by a riser assembly and shall include an appropriate cover. The access device shall:

- (1) Be of sufficient size to facilitate inspection and service.
- (2) Be designed and constructed to equal or exceed the minimum loading specifications applicable to the septic tank.
- (3) Prevent water entry.
- (4) Come to within six inches of the finished grade.
- (5) Be visibly marked so that the access device can be readily located.

§ 130A-336. **Improvement permit and authorization for wastewater system construction required.**

(a) Any proposed site for a residence, place of business or place of public assembly in an area not served by an approved wastewater system shall be evaluated by the local health department in accordance with rules adopted pursuant to this Article. An improvement permit shall be issued in compliance with the rules adopted pursuant to this Article. An improvement permit shall include:

- (1) For permits that are valid without expiration, a plat, or, for permits that are valid for five years, a site plan.
- (2) A description of the facility the proposed site is to serve.
- (3) The proposed wastewater system and its location.
- (4) The design wastewater flow and characteristics.
- (5) The conditions for any site modifications.
- (6) Any other information required by the rules of the Commission.

The improvement permit shall not be affected by change in ownership of the site for the wastewater system provided both the site for the wastewater system and the facility the system serves are unchanged and remain under the ownership or control of the person owning the facility. No person shall commence or assist in the construction, location or relocation of a residence, place of business or place of public assembly in an area not served by an approved wastewater system unless an improvement permit and an authorization for wastewater system construction are obtained from the local health department. This requirement shall not apply to a manufactured residence exhibited for sale or stored for later sale and intended to be located at another site after sale.

(b) The local health department shall issue an authorization for wastewater system construction authorizing work to proceed and the installation or repair of a wastewater system when it has determined after a field investigation that the system can be installed and operated in compliance with this Article and Rules adopted pursuant to this Article. This authorization for wastewater system construction shall be valid for a person equal to the period of validity of the improvement permit, not to exceed five years, and may be issued at the same time the improvement permit is issued. No person shall commence or assist in the installation, construction, or repair of a wastewater system unless an improvement permit and an authorization for wastewater system construction has been obtained from the Department or the local health department. No improvement permit or authorization for wastewater system construction shall be required for maintenance of a wastewater system. The Department and the local health department may impose conditions on the issuance of an improvement permit and an authorization for wastewater system construction.

(c) Unless the Commission otherwise provides by rule, plans, and specifications for all wastewater systems designed for the collection, treatment, and disposal of industrial process wastewater shall be reviewed and approved by the Department prior to issuance of an authorization for wastewater system construction by the local health department.

(d) If a local health department repeatedly fails to issue or deny improvement permits for conventional septic tank systems within 60 days of receiving completed applications for the permits, then the Department of Environment, Health and Natural Resources may withhold public health funding from that local health department.

§ 130A-337. **Inspection; operation permit required.**

(a) No system of wastewater collection, treatment and disposal shall be covered or placed into use by an person until an inspection by the local health department has determined that the system has been installed or repaired in accordance with any conditions of the improvement permit, the rules and this Article.

(b) Upon determining that the system is properly installed or repaired and that the system is capable of being operated in accordance with the conditions of the improvement permit, the rules, this Article and any conditions to be imposed in the operation permit, as applicable, the local health department shall issue an operation permit authorizing the residence, place of business or place of public assembly to be occupied and for the system to be placed into use or reuse.

(c) Upon determination that an existing wastewater system has a valid operation permit and is operating properly in a manufactured home park, the local health department shall issued authorization in writing for a manufactured home to be connected to the existing system and to be occupied. Notwithstanding G.S. 130A-336, an improvement permit is not required for the connection of a manufactured home to an existing system with a valid operation permit in a manufactured home park.

(d) No person shall occupy a residence, place of business or place of public assembly, or place a wastewater system into use or reuse for a residence, place of business or place of public assembly until an operation permit has been issued or authorization has been obtained pursuant to G.S. 130A-337(c).

§ 130A-338. **Authorization for wastewater system construction required before other permits to be issued.**

Where construction, location or relocation is proposed to be done upon a residence, place of business or

place of public assembly, no permit required for electrical, plumbing, heating, air conditioning or other construction, location or relocation activity under any provision of general or special law shall be issued until an authorization for wastewater system construction has been issued under G.S. 130A-336 or authorization has been obtained under G.S. 130A-337(c).

§ 130A-339. **Limitation on electrical service.**

No person shall allow permanent electrical service to a residence, place of business or place of public assembly upon construction, location or relocation until the official electrical inspector with jurisdiction as provided in G.S. 143-143.2 certifies to the electrical supplier that the required improvement permit authorization for wastewater system construction and an operation permit or authorization under G.S. 130A-337(c) has been obtained. Temporary electrical service necessary for constructing a residence, place of business or place of public assembly can be provided under compliance with G.S. 130A-338.

§ 130A-340. **Review procedures and appeals.**

The Department, upon request by an applicant for an improvement permit, shall provide a technical review of any scientific data and system design submitted by the applicant. The data and system design shall be evaluated by professional peers of those who prepared the data and system design. The results of the technical review shall be available prior to a decision by the local health department and shall not affect an applicant's right to a contested hearing under Chapter 150B of the General Statutes.

§ 130A-341. **Consideration of a site with existing fill.**

Upon application to the local health department, a site that has existing fill, including one on which fill material was placed prior to July 1, 1977, and that has sand or loamy sand for a depth of at least 36 inches below the existing ground surface, shall be evaluated for an on-site wastewater system. The Commission shall adopt rules to implement this Section.

§ 130A-342. **Aerobic systems.**

(a) Individual aerobic sewage treatment plants that are approved and listed in accordance with the standards adopted by the National Sanitation Foundation, Inc. for Class I sewage treatment plants as set out in Standard 40, as amended, shall be permitted under rules promulgated by the Commission. The Commission may establish standards in addition to those set by the National Sanitation Foundation, Inc.

(b) A permitted plant shall be operated and maintained by a certified wastewater treatment facility operator.

(c) The performance of individual aerobic treatment plans is to be documented by the counties and sent to the Department of Environment, Health and Natural Resources annually.

§ 130A-343. **Experimental and innovative systems permitted.**

(a) The Commission shall adopt rules for the approval and permitting of experimental and innovative wastewater systems. The rules shall address the criteria to be considered prior to issuing a permit for such a system, requirements for preliminary design plans and specifications that must be submitted, methodology to be used, standards for monitoring and evaluating the system, research evaluation of the system, the plan of work for monitoring system performance and maintenance, and any additional matters the Commission deems appropriate.

(b) The Commission shall adopt rules governing the operation and maintenance of experimental and innovative wastewater systems approved and permitted under subsection (a) of this section.

(c) The Department shall provide a listing of all approved experimental and innovative wastewater systems to the local health departments annually, and more frequently, when the Department makes a final agency decision on a new system.

§ 130A-344. is repealed.

§ 130A-345: Reserved for future codification purposes.

Amendments to Article 11 (HB-912 - ratified June 19, 1995, SB-687-ratified June 20, 1996 and HB-53-ratified August 3, 1996) became effective October 1, 1995, June 20, 1996 and August 3, 1996, respectively and apply to all improvement permits and authorizations to construct issued on or after their respective effective dates. Session Law 1998-126 (HB-1462), effective August 28, 1998 amended G.S. 130A-335(f) and added a second (f1) and a new G.S. 130A-335.1 that requires Commission rule-making for effluent filters, access devices, and visible markers for septic systems permitted (Construction Authorization) on and after January 1, 1999.