

**§ 130A-343. Approval of on-site subsurface wastewater systems.**

(a) Definitions. – As used in this section:

- (1) "Accepted wastewater dispersal system" means any subsurface wastewater dispersal system, other than a conventional wastewater system, that: (i) has been previously approved as an Innovative wastewater dispersal system or is a wastewater dispersal system specifically identified in a rule adopted by the Commission; (ii) has been in general use in this State as a wastewater dispersal system for more than five years; and (iii) has been approved by the Commission for general use or use in one or more specific applications. An Accepted wastewater dispersal system may be approved for use in applications for which a conventional wastewater system is unsuitable. The Commission may impose design, operation, maintenance, monitoring, and management requirements on the use of an Accepted wastewater dispersal system that it determines to be appropriate.
- (2) Recodified as subdivision (a)(7).
- (3) "Conventional wastewater system", "conventional sewage system", or "conventional septic tank system" means a subsurface wastewater system that consists of a traditional septic or settling tank and a gravity-fed subsurface dispersal field that uses washed natural stone or gravel of approved size and grade and piping to distribute effluent to soil in one or more nitrification trenches and that does not include any other appurtenance.
- (4) Repealed by Session Laws 2015-286, s. 4.15(a), effective October 22, 2015.
- (5) "Innovative wastewater system" means any wastewater system, other than a conventional wastewater system or a provisional wastewater system, or any technology, device, or component of a wastewater system that: (i) has been demonstrated to perform in a manner equal or superior to a conventional wastewater system; (ii) is constructed of materials whose physical and chemical properties provide the strength, durability, and chemical resistance to allow the system to withstand loads and conditions as required by rules adopted by the Commission; and (iii) has been approved by the Department for general use or for one or more specific applications. An innovative wastewater system may be approved for use in applications for which a conventional wastewater system is unsuitable. The Department may impose any design, operation, maintenance, monitoring, and management requirements on the use of an innovative wastewater system that it determines to be appropriate. A wastewater system approved by a nationally recognized certification body and in compliance with the ongoing verification program of such body may submit a sampling protocol for innovative system approval that reduces the data sets required for such approval by fifty percent (50%). Such an application shall include all of the data associated with the nationally recognized certification body's verification of the system's performance.
- (6) "Nationally recognized certification body" means a third-party certification body for wastewater systems or system components that is accredited by an entity widely recognized in the United States such as the American National Standards Institute, the Standards Council of Canada, or the International Accreditation Service, Inc.
- (6a) "Prefabricated permeable block panel system" is a series of units for onsite wastewater dispersal manufactured of cementitious materials of coarse and fine lightweight expanded shale aggregate along with Portland cement, connected together by plastic pipe. The unit shall be of rigid design,

constructed and installed to withstand load requirements without collapse, compression, or deflection.

- (7) "Provisional wastewater system" means any wastewater system or any technology, device, or component of a wastewater system that, on the basis of (i) research acceptable to the Department or (ii) approval of the wastewater system by a nationally recognized certification body for a period that exceeds one year for research, testing, or trial use under actual field conditions in this State pursuant to a protocol that has been approved by the Department.

(b) Adoption of Rules Governing Approvals. – The Commission shall adopt rules for the approval and permitting of innovative, conventional, provisional, and accepted wastewater systems. The rules shall address the criteria to be considered prior to issuing an approval for 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 determines are necessary for verification of the performance of a wastewater system or system component.

(c) Procedure for Modifications or Revocations. – The Department may modify, suspend, or revoke the approval of a wastewater system if the Department determines that the approval is based on false, incomplete, or misleading information or if the Department finds that modification, suspension, or revocation is necessary to protect public health, safety, or welfare. The Department shall provide a listing of all approved innovative, provisional, and accepted wastewater systems to the local health departments annually, and notify the local health departments within 30 days of any modification or revocation of an approval of a wastewater system or system component.

(d) Evaluation Protocols. – The Department shall approve one or more nationally recognized protocols for the evaluation of wastewater systems. Any protocol approved by the Department shall specify a minimum number of sites that must be evaluated and the duration of the evaluation period. At the request of a manufacturer of a wastewater system, the Department may approve an alternative protocol for use in the evaluation of the performance of the manufacturer's wastewater system. A protocol for the evaluation of a wastewater system approved by the Department pursuant to this section is a scientific standard within the meaning of G.S. 150B-2(8a)h.

(e) Repealed by Session Laws 2015-286, s. 4.15(a), effective October 22, 2015.

(f) Provisional Systems. – A manufacturer of a wastewater system may apply to the Department to have the system provisionally approved for use in this State. Any wastewater system approved based on its approval by a nationally recognized certification body must be designed and installed in a manner consistent with the system evaluated and approved by the nationally recognized certification body. The manufacturer shall submit a proposal for evaluation of the system to the Department. The proposal shall contain procedures for obtaining specified information necessary to achieve innovative status upon completion of the provisional status. The proposal for evaluation shall include the design of the system, a description of any laboratory or field research or testing that will be used to evaluate the system, a description of the research or testing protocol, and the credentials of the independent laboratory, consultant, or other entity that will be conducting the research or testing on the system. The proposal may include an evaluation of research and testing conducted in other states to the extent that the research and testing involves soil types, climate, hydrology, and other relevant conditions that are comparable to conditions in this State and if the research or testing was conducted pursuant to a protocol acceptable to the Department. The manufacturer shall enter into a contract for an evaluation of the performance of the controlled demonstration wastewater system with an independent laboratory, consultant, or other entity that has expertise in the evaluation of wastewater systems

and that is approved by the Department. The manufacturer may install up to 200 provisional wastewater systems on sites that are suitable for a conventional wastewater system and that have a repair area of sufficient size to allow installation of a conventional wastewater system, an approved innovative wastewater system, or an accepted wastewater system if the provisional wastewater system fails to perform properly. If the provisional wastewater system is intended for use on sites that are not suitable for a conventional wastewater system, the Department may approve the installation of the provisional wastewater system if the Department determines that the manufacturer can provide an acceptable alternative method for collection, treatment, and dispersal of the wastewater. The Department shall approve applications for provisional systems based on approval by a nationally recognized certification body within 90 days of receipt of a complete application. A manufacturer that chooses to remove its product from the nationally recognized standard during the provisional approval may continue its application in this State pursuant to requirements and procedures established by the Department.

(g) Innovative Systems. – A manufacturer of a wastewater system for on-site subsurface use may apply for and be considered for innovative system status by the Department in one of the following ways:

- (1) If the wastewater system has been approved as a provisional wastewater system pursuant to subsection (f) of this section, the manufacturer may apply to have the system approved as an innovative wastewater system based on successful completion of the evaluation protocols established pursuant to subsection (d) of this section.
- (2) If the wastewater system has not been evaluated or approved as a provisional wastewater system pursuant to subsection (f) of this section, the manufacturer may apply to the Department to have the system approved as an innovative wastewater system on the basis of comparable research and testing conducted in other states. The manufacturer shall provide the Department with the data and findings of all evaluations of the performance of the system that have been conducted in any state by or on behalf of the manufacturer. The manufacturer shall also provide the Department with a summary of the data and findings of all other evaluations of the performance of the system that are known to the manufacturer.
- (3) If the wastewater system has not been evaluated or approved as a provisional system pursuant to subsection (f) of this section, but has been evaluated under protocol established by a nationally recognized certification body for at least two consecutive years, has been found to perform acceptably based on the criteria of the protocol, and is designed and will be installed in a manner consistent with the system evaluated and approved by the nationally recognized certification body, the manufacturer may apply to have the system approved as an innovative wastewater system.

Within 30 days of receipt of the initial application, the Department shall either (i) notify the manufacturer of any items necessary to complete the application or (ii) notify the manufacturer that its application is complete. The Department shall publish a notice that the manufacturer has submitted an application under this subsection in the North Carolina Register and may provide additional notice to the public via the Internet or by other means. The Department shall receive public comment on the application for at least 30 days after the date the notice is published in the North Carolina Register. In making a determination under this subsection, the Department shall consider the data, findings, and recommendations submitted by the manufacturer and all public comment. The Department may also consider any other information that the Department determines to be relevant. The Department shall determine: (i) whether the system performs in a manner equal or superior to a conventional wastewater system, in terms of structural integrity,

treatment, and hydraulic performance; (ii) whether the system is constructed of materials whose physical and chemical properties provide the strength, durability, and chemical resistance to allow the system to withstand loads and conditions as required by rules adopted by the Commission; (iii) the circumstances in which use of the system is appropriate; and (iv) any conditions and limitations related to the use of the system. The Department shall make the determinations required by this subsection and approve or deny the application within 90 days after the Department receives a complete application from a manufacturer. If the Department fails to act on the application within 90 days of the notice of receipt of the complete application, the manufacturer may treat the application as denied and challenge the denial by filing a contested case as provided in Article 3 of Chapter 150B of the General Statutes. If the Department approves an innovative wastewater system, the Department shall notify the manufacturer of the approval and specify the circumstances in which use of the system is appropriate and any conditions and limitations related to the use of the system.

(g1) Approval of Functionally Equivalent Trench Systems as Innovative Systems. – A manufacturer of a wastewater trench system may petition the Commission to have the wastewater trench system approved as an innovative wastewater system as provided in this subsection.

- (1) The Commission shall approve a wastewater trench system as an innovative wastewater system if it finds that there is clear, convincing, and cogent evidence that the wastewater trench system is functionally equivalent to a wastewater trench system that is approved as an accepted wastewater system. A wastewater trench system shall be considered functionally equivalent to an accepted wastewater trench system if the performance characteristics of the wastewater trench system satisfy all of the following requirements:
  - a. The physical properties and chemical durability of the materials from which the wastewater trench system is constructed are equal to or superior to the physical properties and chemical durability of the materials from which the accepted wastewater trench system is constructed.
  - b. The permeable sidewall area and bottom infiltrative area of the wastewater trench system are equal to or greater than the permeable sidewall area and bottom infiltrative area of the accepted wastewater trench system at a field-installed size.
  - c. The wastewater trench system utilizes a similar method and manner of function for the conveyance and application of effluent as the accepted wastewater trench system.
  - d. The structural integrity of the wastewater trench system is equal to or superior to the structural integrity of the accepted wastewater trench system.
  - e. The wastewater trench system shall provide a field installed system storage volume equal to or greater than the field installed system storage volume of the accepted wastewater trench system.
- (2) As part of its petition, the manufacturer shall provide to the Commission all of the following information:
  - a. Specifications of the wastewater trench system.
  - b. Data necessary to demonstrate that the wastewater trench system is functionally equivalent to a wastewater trench system that is approved as an accepted wastewater system.
  - c. A certified statement from an independent, third-party professional engineer or testing laboratory that, based on verified documentation,

the wastewater trench system is functionally equivalent to an accepted wastewater system.

- (3) Approval of a wastewater trench system as an innovative wastewater system shall not be conditioned on the manufacturer of the wastewater trench system having operational systems installed in the State.
- (4) The Commission shall authorize the use of a wastewater trench system as an innovative wastewater system in the same applications as the accepted wastewater trench system.
- (5) The Commission shall not include conditions and limitations in the approval of a wastewater trench system as an innovative wastewater system that are not included in the approval of the accepted wastewater trench system.

(h) Accepted Wastewater Dispersal Systems. – A manufacturer of an Innovative wastewater dispersal system or other approved trench dispersal system specifically identified in a rule adopted by the Commission that has been in general use in this State for a minimum of five years may petition the Commission to have the system designated as an Accepted wastewater system as provided in this subsection. The manufacturer shall provide the Commission with the data and findings of all prior evaluations of the performance of the system in this State and other states referenced in the petition, including disclosure of any conditions found to result in unacceptable structural integrity, treatment, or hydraulic performance. In addition, the manufacturer shall provide the Commission with information sufficient to enable the Commission to fully evaluate the performance of the system in this State for at least the five-year period immediately preceding the petition. The Commission shall designate a wastewater dispersal system as an Accepted wastewater system only if it finds that there is clear, convincing, and cogent evidence based on actual field surveys and county activity reports (i) to confirm the findings made by the Department at the time the Department approved the system as a wastewater dispersal system and (ii) that the system performs in a manner that is equal or superior to a conventional or Accepted wastewater system under actual field conditions in this State. The Commission shall specify the circumstances in which use of the system is appropriate and any conditions and limitations related to the use of the system. If the Commission designates a wastewater dispersal system as an Accepted wastewater system pursuant to this section, the following shall apply:

- (1) The approval shall be limited to the manufacturer who submitted the petition and received the Accepted status from the Commission.
- (2) Neither the Commission, the Department, or any local health department shall condition, delay, or deny the substitution of any Accepted wastewater system based on location of nitrification lines when all parts of the dispersal field can be installed within the approved initial dispersal field area while complying with all Commission rules.

(i) Nonproprietary Wastewater Systems. – The Department may initiate a review of a nonproprietary wastewater system and approve the system for use as a provisional wastewater system or an innovative wastewater system without having received an application from a manufacturer.

(j) Repealed by Session Laws 2015-286, s. 4.15(a), effective October 22, 2015.

(j1) Clarification With Respect to Certain Dispersal Media. – In considering the application by a manufacturer of a wastewater system utilizing expanded polystyrene synthetic aggregate particles as a septic effluent dispersal medium for approval of the system under this section, neither the Commission nor the Department may condition, delay, or deny the approval based on the particle or bulk density of the expanded polystyrene material. With respect to approvals already issued by the Department or Commission that include conditions or requirements related to the particle or bulk density of expanded polystyrene material, the

Commission or Department, as applicable, shall promptly reissue all such approvals with the conditions and requirements relating to the density of expanded polystyrene material permanently deleted while leaving all other terms and conditions of the approval intact.

(j2) Clarification of Use of Native Backfill. – In considering the use of backfill material in subsurface trench dispersal products, neither the Commission nor the Department shall condition, delay, or deny the approval of a subsurface trench dispersal product based on a non-native backfill material requirement without the prior approval of the manufacturer. With respect to approvals already issued by the Department or the Commission that include conditions or requirements specifying the use of non-native backfill material, the Department or Commission, as applicable, shall reissue those approvals, at the written request of the manufacturer, without conditions or requirements relating to the use of non-native backfill material.

(k) Fees. – The Department shall collect the following fees under this section:

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| (1) | Review of an alternative protocol<br>under subsection (d) of this section        | \$1,000.00 |
| (2) | Repealed by Session Laws 2015-286, s. 4.15(a), effective October 22, 2015.       |            |
| (3) | Review of a provisional system   | \$3,000.00 |
| (4) | Review of an innovative system   | \$3,000.00 |
| (5) | Review of an accepted system   | \$3,000.00 |
| (6) | Review of a residential wastewater treatment<br>system pursuant to G.S. 130A-342 | \$1,500.00 |
| (7) | Review of a component or device required of a system                             | \$ 100.00  |
| (8) | Modification to approved accepted, provisional, or<br>innovative system          | \$1,000.00 |

(l) On-Site Wastewater System Account. – The On-Site Wastewater System Account is established as a nonreverting account within the Department. Fees collected pursuant to this section shall be placed in the On-Site Wastewater System Account and shall be applied only to the costs of implementing this section. (1989, c. 764, s. 10; 1991 (Reg. Sess., 1992), c. 944, s. 9; 1995, c. 285, s. 1; 2001-505, s. 2.2; 2011-261, s. 1; 2014-120, s. 28(a); 2015-286, s. 4.15(a); 2018-114, s. 12; 2019-151, s. 13; 2021-117, s. 12.1; 2023-63, s. 17(a); 2023-90, ss. 6(a), 10.2.)