

# NORTH CAROLINA GENERAL ASSEMBLY



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## ON-SITE WASTEWATER TASK FORCE

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### REPORT TO THE 2020 SESSION of the 2019 GENERAL ASSEMBLY OF NORTH CAROLINA

FEBRUARY 1, 2020

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# TRANSMITTAL LETTER

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February 1, 2020

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TO THE MEMBERS OF THE 2020 REGULAR SESSION  
OF THE 2019 GENERAL ASSEMBLY

The **ON-SITE WASTEWATER TASK FORCE**, respectfully submits the following report to the 2020 Regular Session of the 2019 General Assembly. The report was prepared by the On-site Wastewater Task Force Committee, pursuant to Session Law 2019-151.

Respectfully submitted,

*Wm R Davis*

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Mr. William Russell Davis, Chairman

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# COMMITTEE PROCEEDINGS

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The Committee on On-Site Wastewater Task Force met four times after the 2019 Regular Session. The Committee's Charge can be found [here](#). The following is a brief summary of the Committee's proceedings. Detailed minutes and information from each Committee meeting are available in the Legislative Library. The On-Site Wastewater Task Force was staffed by Sidney Thomas (Committee Counsel), Jane Currin (Committee Assistant), and Wendy Miller (Committee Assistant).

## October 7, 2019

The On-Site Wastewater Task Force met on Monday, October 7, 2019 at 10:00 A.M. The meeting was held in Room 423 of the Legislative Office Building. Trisha Angoli, Steve Barry, Jim Beeson, Steve Bristow, Russ Davis, Duke Geraghty, Stacey Harris, Doug Lassiter, Jerry Pearce, and Stacey Smith were present. Mr. Davis presided.

Members and staff introduced themselves. Task Force Member Doug Lassiter presented a PowerPoint on the background and overview of the statute that states the criteria to review/resolve disapproved rules of 15A NCAC 18E. Mr. Lassiter and staff also explained the rules that govern the Task Force. The PowerPoint presentation is attached to this study. After discussion of the rules, Steve Barry moved to adopt the rules of the Task Force, and Steve Bristow seconded. The Task Force unanimously passed the motion and the rules were adopted.

During the Task Force discussion on Rule .0103 – Incorporation by Reference, Members Trisha Angoli, Doug Lassiter, Stacey Harris; Department of Health and Human Services (DHHS) staff; and other professional organizations expressed their concerns over the lack of clarity and transparency between DHHS, manufacturers, and industry stakeholders' ability to acquire information from the department. Ms. Angoli and DHHS staff stated that the department may allow documents to be observed in their office by the public, even though copyright laws would prevent copying and distribution. Members agreed with the criteria established and adopted the rule as written. Under Rule .0105 – Definitions, Mr. Lassiter discussed amending the definition to include Authorized On-Site Wastewater Evaluator (AOWE) and making tank standards consistent.

After a few comments from members, the Task Force moved onto Rule .0303 – Licensed or Certified Professionals. Ms. Angoli confirmed that the major concerns of this rule had been resolved. Stacey Harris asked Ms. Angoli and DHHS staff if the distance could be expanded to avoid Project Evaluator site visits and additional costs to the consumer. Ms. Angoli recognized DHHS staff to answer Mr. Harris's question. According to DHHS staff, the 1,000-ft distance was used because it did not require an air-release valve. Members had a brief discussion on Rules .0401, .0402, and .0403 -- Design Daily Flow, Septic Tank Effluent Characteristics, and Adjustments to Design Daily Flow and approved each as written. Under Rule .0505 – Soil Depth, members and industry

stakeholders expressed their concerns about the lengthy and expensive process that Infiltrator Water Technologies (IWT) had gone through. Steve Barry stated the 24” soil depth had been used successfully and protects the public health and environment and was unsure of reducing the distance. In a 9 to 1 vote, members approved the rule as written.

After a brief recess, Chairman Davis reminded members that items in new business could be tabled until the next meeting as old business as stipulated under the Rules. After a lengthy discussion between Task Force Members and other stakeholders, members agreed to table Rules .0805 – Tank Leak Testing and Installation Requirements; .1401 -- Plans for Prefabricated Tanks; .1402 -- Tank and Design Construction; and .1404 -- Plans and Specifications for Risers, Effluent Filters, and Pipe Penetration Boots to allow members to receive additional information from Ms. Angoli.

### **October 28, 2019**

The On-Site Wastewater Task Force met on Monday, October 28, 2019 at 10:00 A.M. The meeting was held in Room 423 of the Legislative Office Building. Trisha Angoli, Steve Barry, Jim Beeson, Steve Bristow, Russ Davis, Duke Geraghty, Stacey Harris, Doug Lassiter, Jerry Pearce, and Stacey Smith were present. Mr. Davis presided.

There were several questions and ideas discussed pertaining to Rules .0805 -- Tank Leak Testing and Installation Requirements; .1401 -- Plans for Prefabricated Tanks; .1402 -- Tank and Design Construction; and .1404 -- Plans and Specifications for Risers, Effluent Filters, and Pipe Penetration Boots. Task Force Members agreed to form a small work group to discuss concerns about the rules during lunch.

Following the discussion of old business, Task Force Members discussed their concerns and sought clarification for Rules .1002 – Reclaimed Water Systems; .1101 -- General Dosing System Requirements; .1102 -- Pump Dosing; .1104 -- Siphon Dosing; .1105 -- Timed Dosing; and .1203 – Siting and Sizing Criteria/Advanced Treatment /> 1,500 < 3,000 GPD. Once Chairman Davis established there were no additional issues surrounding these rules, Task Force Members agreed to approve all rules as written. After lengthy discussions between members, DHHS staff, and industry stakeholders on Rules .1106 – Pressure Dosed Gravity Distance Devices and .1202 – Siting and Sizing Criteria/Advanced Treatment/<1,500 GPD, members agreed to modify the language within each rule.

After the small work group met during the recess, Ms. Angoli stated that the issues surrounding Rule .0805 had been resolved and explained the changes that the group had discussed. Once Ms. Angoli concluded her explanation, the members approved the changes. Rules .1401; .1402; and .1404 were tabled for the next Task Force Meeting. Without further discussion, Rules .1204 – Advanced Pretreatment Drip Dispersal; .1205 – Advanced Pretreatment Sand Lined Trench; .1303 -- Owner Responsibilities; .1304 -- Management Entity Responsibilities for O & M; .1305 -- LHD Responsibilities for O & M were all approved by Task Force Members. Following an inquiry by Mr. Lassiter on the limitation of 600 gallons per day and comments from DHHS staff, the Task Force approved Rule .1206 -- Advanced Pretreatment Bed Systems. Task Force Members asked several



questions about the meaning and ramifications of the term “eliminate”. Ms. Angoli and DHHS staff provided clarification and new language for Rule .1306 – System Malfunction and Repair. Task Force Members agreed and approved Ms. Angoli’s modification.

The members agreed to group Rules .1702, .1703, .1704, and .1705 to approve as written. After a brief discussion between members and input from stakeholders, the Task Force approved Rules .1701 – General; .1706 -- Approval Criteria for Accepted Systems; .1707 -- Design and Installation Criteria for PIA Systems; .1708 -- Modification, Suspension, & Revocation of Approvals; .1709 -- Wastewater Sampling Requirements for Advanced Pretreatment Systems; .1710 -- Compliance Criteria for Advanced Pretreatment Systems; .1711 -- Provisional and Innovative System Renewal; and .1712 -- Authorized Designers, Installers, & Management Entities as written. Under Rule .1713 – LHD Responsibilities, Mr. Lassiter asked the Task Force to make modifications to Paragraph (8). With little discussion the Task Force approved Mr. Lassiter’s language.

### **November 25, 2019**

The On-Site Wastewater Task Force met on Monday, November 25, 2019, at 10:00 AM. The meeting was held in Room 1028/1127 of the Legislative Building. Russ Davis, Stacey Smith, Jerry Pearce, Stacey Harris, Doug Lassiter, Duke Geraghty, Steve Bristow, Jim Beeson, Trisha Angoli, and Steve Barry were present. Mr. Davis presided.

During a lengthy discussion about rules examined by the small work group additional concerns were raised by Task Force Members. Ms. Angoli provided a brief description with modified language to resolve the issues surrounding each rule. Mr. Lassiter expressed his concerns for tank materials ability to meet consistent requirements. For Rules .1401 – Plans for Prefabricated Tanks; .1402 – Tank Design and Construction; .1403 – Tank Material Requirements; and .1404 Plans for Risers, Effluent Filters, and Pipe Penetration, the Task Force Members agreed to the modified language provided by Ms. Angoli and DHHS staff.

Chairman Davis recognized Mr. Lassiter for a motion to reconsider Rule .1706 – Approval Criteria of Accepted Systems. The Task Force Members approved the motion. Mr. Barry expressed concerns on setting the threshold of an actual number as compared to a conventional system. A lengthy discussion between members about system failure rates commenced. After Mr. Barry and several members issues were resolved, the Task Force accepted the rule as written.

Once concluded, Chairman Davis recognized Mr. Beeson for a motion to reconsider Rule .0303 – Licensed or Certified Professionals. The Task Force Members approved the reconsideration. Mr. Smith explained his concerns and provided modified language to be included in the rule. With no discussion, members approved the modifications. After a brief recess, Chairman Davis recognized Mr. Barry to discuss the reconsideration of Rule .1202 – Siting and Sizing Criteria DDF <1,500 GPD, specifically Paragraph (c)(5) and Rule .1203 – Siting and Sizing Criteria DDF >1,500 GPD <3,000 GPD, specifically Paragraph (e). The Task Force Members approved the reconsideration after Mr. Barry expressed his concerns over the new restriction that is placed within the rule. Members deliberated over

the percentage rate that should be applicable to the daily design flow. After some discussion members agreed to the amended language.

At the conclusion of old business, the Task Force moved onto new business. Without discussion, Task Force Members approved Rule .0101 – General as written. Mr. Lassiter stated that homeowners should be allowed to go to the local health department to get approval to choose which consultant to contract with to perform soil and site evaluations, thereby, allowing the local health department to evaluate the site to determine suitability. There were additional comments made from county workers, DHHS staff, and members. Rules .0201 – General and .0203 – Improvement Permits were passed as written. After extensive discussion on Rule .0204 – Construction Authorization, the motion was defeated. Task Force Members passed Rules .0202 – General; .0205 – Operation Permit; .0206 – Existing System Approvals for Reconnections and Property Additions; and .0207 – Engineer Option Permit without changes.

With little discussion from members, the Task Force passed Rules .0301 – Owners; .0304 – Submittal Requirements/Licensed Professionals/>3,000 GPD; and .0305 – Submittal Requirements/Licensed Professionals/<3,000 GPD. Mr. Lassiter expressed the need for some additional language at the end of Paragraph (a) pursuant to 21 NCAC 39. Members of the Task Force recognized several stakeholders to discuss issues surrounding Rule .0601 – Location of Wastewater Systems and .0602 – Applicability of Setbacks. Mr. Beeson stated that there needed to be some distinction between private and public wells. After extensive discussion between members and public input, members moved to table the discussion until the following meeting. Some members agreed to meet at the small work group on Monday, December 9, 2019 to revisit the items and allow Ms. Angoli to provide additional information and correct the language.

### **December 16, 2019**

The On-Site Wastewater Task Force met on Monday, December 16, 2019, at 10:00 AM. The meeting was held in Room 1028/1127 of the Legislative Building. Russ Davis, Jerry Pearce, Stacey Harris, Doug Lassiter, Duke Geraghty, Steve Bristow, Jim Beeson, Trisha Angoli, and Steve Barry were present. Mr. Davis presided.

Ms. Angoli began the meeting by providing details of the small work group that met on Monday, December 9, 2019. She stated, “She was confident they have a version that is 97% complete with a few tweaks remaining.” Ms. Angoli asked Mr. Beeson to give a brief overview of the three points that were discussed at the small work group. Mr. Beeson provided clarity on a number of resolutions under Rule .0601 – Location of Wastewater Systems, specifically Paragraph(e)(1) and provided clarification with the help of public input on why certain language was not included in the modified rule. Some Task Force Members also discussed their concerns of language in Rule .0901 – General Design & Installation Criteria. Stacey Harris asked for clarification on language under Rule .0901, specifically Subparagraph (g)(5). Mr. Lassiter made a motion to provide additional requirements for cover and backfill material separately. After some discussion, the Task Force approved Mr. Lassiter’s language.

Without much discussion, the Task Force Members passed these rules as written, including:

- .0902 – Conventional Wastewater Systems
- .0903 – Bed Systems
- .1001 – Alternative Toilets
- .1002 – Wastewater Recycle/Reuse
- .1101 – General System Dosing Requirements
- .1103 – Control Panels
- .1201 – Advanced Pretreatment System Standards
- .1207 – Site & System Compliance Criteria Advanced Treatment Systems
- .1302 – Operation & Maintenance of Advanced Pretreatment
- .1405 – Riser, Effluent Filters and Pipe Penetration Renewal
- .1406 – Modifications, Suspensions, and Revocation of Approval
- .1501 – General RWTS
- .1502 – Application RWTS
- .1503 – Design and Construction Standards RWTS
- .1504 – Effluent Sampling RWTS
- .1505 – Residential Wastewater Treatment System Renewal
- .1601 – General Pre-Engineered Drip Systems
- .1602 – Design and Construction Standards Pre-Engineer Drip
- .1603 – Drip Systems Testing

Chairman Davis recognized Mr. Lassiter to discuss reconsideration for Rule .1713 – Local Health Department Responsibilities. The Task Force approved the motion. Mr. Lassiter expressed his concerns of certain language. Ms. Angoli stated that DHHS is aware and are currently working to update the language. She further stated that the language could change in the near future and would provide members with the updated rule on Monday, January 13, 2020.

After a brief recess, Chairman Davis recognized Mr. Bristow to discuss the reconsideration of Rule .0508 – Available Space. The Task Force approved the motion. Mr. Bristow provided language to include Group I soils. After extensive discussion and input from DHHS, county departments, and other stakeholders, Mr. Bristow modified his language to include Group I and Group II soils. Once old business concluded, Chairman Davis stated that the final report needed to be submitted to staff no later than Thursday, January 16, 2020. Chairman Davis appointed an Executive Committee that consisted of one person from each area; Trisha Angoli of the North Carolina Division of Public Health On-Site Water Protection Branch, Jim Beeson of the Soil Scientists Association of North Carolina, Doug Lassiter of the North Carolina Septic Tank Association, and Russ Davis of the North Carolina Licensing Board for General Contractors. The Executive Committee will meet on Monday, January 13, 2020 to discuss the finalized rule changes of the Task Force with staff.

At the conclusion of meeting, Chairman Davis recognized each member to make comments. Several members mentioned the insight they gained from working with and

hearing from other professional organizations. They also acknowledged what a unique experience and privilege it was to work on a Task Force that was making policy.

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# FINDINGS AND RECOMMENDATIONS

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Based on the information in the current rules, public comments, and discussion during its meetings, the Committee submits the findings and recommendations outlined below.

## **Finding 1 – Sections .0100 to .0500**

The On-Site Wastewater Task Force finds the best way to provide industry stakeholders with better guidance and information is to make the 18E Rules more transparent and clarified for industry and public use. A common question was based on the lack of consistent definitions for the tank, plastic, and concrete industry. To ensure consistency across legislation, members of the Task Force finds that the Authorized On-site Wastewater Evaluator established by HB 268 shall be defined in rules.

Additionally, industry stakeholders emphasized that all tank definitions should be consistent throughout the rules. According to the tank industry, the Department of Health and Human Services (DHHS) would need to use the same standard for proprietary system tanks as it requires for tanks of general use and provided installation methods that could be used by tank manufacturers. The Task Force finds that in order to achieve best practice and ensure installation is structurally sound, methods for each industry in the rules must include special installation methods for tank manufacturers, in addition to installation methods for each industry.

## **Recommendation 1:**

- I. 15A NCAC 18E .0104 Abbreviations -
  - a. (4) AOWE: Authorized On-Site Wastewater Evaluator
  
- II. 15A NCAC 18E .0105 Definitions –
  - a. (7) "Authorized On-Site Wastewater Evaluator" means a person licensed in accordance with G.S. 90A, Article 5 and meeting the certification requirements in G.S. 130A-336.2(a) and 21 NCAC 39.
  - b. (16) "Control system" means either conventional or accepted systems that are surveyed as part of a survey protocol identified in Rule .1706 of this Subchapter.
  - c. (79) All septic tanks shall be approved in accordance with Section .1400 of this Subchapter.
  - d. (93) "Structurally sound" means a tank that has been installed in accordance with the tank manufacturer's requirements and is able to withstand a minimum uniform live loading of 150 pounds per square foot in addition to all loads to which an underground tank is normally subjected, such as dead weight of the material and soil cover, active soil pressure on tank walls, and the uplifting force of groundwater.

- e. (98) "Test system" means the dispersal system proposed for accepted status as part of a survey protocol identified in Rule .1706 of this Subchapter.
- f. (99) "Three physiographic regions" means the Coastal Plain, Piedmont, and Mountain regions in North Carolina.

**Finding 2 - Sections .0800 to .1300 and .1700**

The On-Site Wastewater Task Force heard several concerns from industry stakeholders, manufacturers, and audience members about the current process for leak testing which provides an unfair advantage for plastic manufacturers. Further, the current process does not provide fair treatment for inadvertent leak testing failures. Members also heard from representatives of county local health departments about concerns over the lack of adequate time to perform testing standards within the allotted time period with minimum staff. The Task Force finds that leak testing may be administered by an authorized agent and will provide two test procedures dependent on the type of tank. The Task Force also finds that tanks will be allowed at least one retest if the tank fails the original test.

The Task Force received a variety of information on the requirements of manifold designs throughout the State, specifically the eastern part. Manifold designs used at the coast are rarely used in other geographical areas of the State. Additionally, industry stakeholders discussed the possibility of a uniform design increasing costs and creating low pressure systems. The Task Force finds that the pressure manifolds requirements will be dependent upon the topography of the area.

To ensure the Task Force considered every issue raised by the public, members reviewed the letters of objections and heard from audience members, industry stakeholders, and manufactures. Several concerns included: the cost to benefit of proportionality compared to water quality; consistent rules language; and wastewater systems receiving approval with equal benefits. The Task Force's mission was to protect the health and well-being of the public and environment. According to members and DHHS staff, Accepted Systems would be consistent with language if sited and sized per the State's approval. This change would allow for all wastewater systems to have Accepted Status with equal benefits. The Task Force finds: (i) the manufacturer should receive a copy of the inspection report to determine if the system has met the criteria; (ii) the proposed rules should be consistent with any legislative changes; (iii) the Local Health Department should use its best professional judgment when repairing malfunctioning systems; and (iv) Accepted Status will be included in the rules to save the owner/contractor from an extended period of time and expenses of obtaining a new permit from the Local Health Department.

**Recommendation 2:**

- I. 15A NCAC 18E .0805 Tank Leak Testing and Installation Requirements -
  - a. (a) All tanks installed under the following conditions shall be leak tested:
  - b. (b) Tanks subject to leak testing in accordance with Paragraph (a) of this Rule shall be leak tested with one of the following standards:
    - i. (1) Hydrostatic test procedure

1. (A) Fill tank with clean water to the outlet invert or pipe, as applicable.
  2. (B) Allow the tank to sit for one hour.
  3. (C) Tank shall be approved if the water level drops less than or equal to 1/8-inch in one hour.
  4. (D) If a leak is detected, the tank may be repaired in accordance with the tank manufacturer's written instructions, refilled, and retested.
  5. (E) Surface wetness or condensation shall not be considered an active water leak.
  6. (F) The tank manufacturer or installer is allowed one attempt to retest the tank before the authorized agent can turn down the tank for failure to pass the leak test.
- ii. (2) Vacuum test procedure
1. (A) Temporarily seal inlet and outlet pipes and access openings.
  2. (B) Using calibrated equipment, draw a vacuum on the empty tank to a negative pressure of 2.5 inches of mercury.
  3. (C) Hold the vacuum for five minutes and re-measure and record the ending negative pressure inside the tank.
  4. (D) No bracing or internal support that is not part of the approved tank shall be allowed.
  5. (E) Tank shall be approved if the difference between the starting negative pressure and the ending negative pressure shall be less than or equal to 0.2 inches.
  6. (F) If a leak is detected, the tank may be repaired in accordance with the tank manufacturer's written instructions and retested.
  7. (G) The tank manufacturer or installer is allowed one attempt to retest the tank before the authorized agent can turn down the tank for failure to pass the leak test.
  8. (H) All tank openings shall be un-sealed after the vacuum test is completed.
- c. (e) The tank shall be installed level. The tank excavation, bedding, backfill, and compaction shall be in accordance with the tank manufacturer's installation requirements and the tank approval.

II. 15A NCAC 18E .0901 General Design and Installation Criteria for Substance Dispersal Systems -

- a. (g)(5) the type and placement of soil cover shall be approved by the authorized agent in accordance with this Subchapter. The cover material shall be free of trash, debris, or large clods that do not break apart. System can be installed utilizing native backfill unless otherwise in their approval.
- III. 15A NCAC 18E .1106 Pressure Dosed Gravity Distribution Devices -
- a. (a) Pressure manifolds for pressure dosed gravity distribution shall meet the following minimum design and performance requirements:
    - i. (1) uniform distribution of flow proportional to lateral length with a minimum of two feet of residual pressure head;
    - ii. (5) a method to visually verify the flow to each individual lateral; and
- IV. 15A NCAC 18E .1202 Siting and Sizing Criteria for Advanced Pretreatment Systems with a Design Daily Flow Less Than or Equal to 1,500 Gallons/Day -
- a. (c)(5) The DDF shall not be increased by the addition of advanced pretreatment to an existing wastewater system by more than 33 1/3 percent on a site without repair area or by more than 50% on a site with repair area.
- V. 15A NCAC 18E .1306 System Malfunction and Repair –
- a. (c)(2) After investigating the malfunction, the State or LHD shall require that the wastewater system be repaired to correct the malfunction and eliminate any public health hazard. The wastewater system shall be repaired so that it is meets G.S. 130A, Article 11 and this Subchapter. When it is not possible to bring the wastewater system into compliance with G.S. 130A, Article 11 and this Subchapter, the authorized agent shall use their best professional judgement, based on education and experience, to require a repair that will enable the wastewater system to function in a manner that complies with Rule .1303(a)(1) of this Section. The LHD shall document the repair using best professional judgement on the CA and OP.
- VI. 15A NCAC 18E .1713 Local Health Department Responsibilities
- a. (4) Permit systems designated as Accepted Systems in an equivalent manner to a conventional system at the owner's request. The Accepted System shall be sited and sized in accordance with Section .0900 of this Subchapter or PIA Approval. The type of Accepted System installed shall be indicated on the OP. The owner must re-apply to the LHD and receive a new or revised IP or CA for any of the following before system installation:
    - i. (a) location of any trench outside of the approved initial dispersal field area;
    - ii. (b) changes to the trench depth specified on the IP or CA;
    - iii. (c) changes to the effluent distribution method; or
    - iv. (d) changes to the DDF or wastewater strength.



- b. (8) Inform the Department, as well as the manufacturer or their authorized representative, of any system determined to be malfunctioning. If the system has been permitted in accordance with G.S. 130A-336.1 or G.S. 130A-336.2 and Rule .0207 of this Subchapter, the LHD shall instruct the owner to contact the PE or AOWE for determination of the reason and the malfunction and development of a NOI for repairs.

### **Finding 3 – Sections .0200 to .0600, .1400, and .1301**

The On-Site Wastewater Task Force considered the option of giving more leeway to homeowners to make a decision on which consultant they would want to enter into an agreement with to perform soil and site evaluations. Task Force Members were concerned with the criteria for determining which soil groups to exclude from administrative rules. Industry stakeholders, county local health departments, and department staff presented members with several reasons to include Group I soils. A common concern was the soil groups located in the Piedmont area of the State. As a result, the Task Force finds that homeowners may contract with a Licensed Soil Scientist of their choosing and submit the soil and site evaluation to the Local Health Department. The Task Force also finds that Groups I and II soils will be exempt from the requirements under Rule .0508 if the expansion or site meet the conditions established by the rules in Subchapter 18E.

The Task Force discussed several options for determining setback lengths for specific sites. DHHS staff presented members with information on certain site setback requirements and the reason for requiring the specific amount. Industry stakeholders expressed their concerns over certain sites being excluded from the current rules. Task Force Members recognized the location of the setback was dependent upon the location of the well. The Task Force finds that the proposed rules will provide a distinction between the different site features for minimum setbacks for all wastewater systems.

Task Force Members heard information from industry stakeholders about the different standards that are used to evaluate material. The CSA method for evaluating all material except concrete has been the national standard for 20 years. Currently, the CSA standard is used by 22 states, including North Carolina and Canada. Members noted the tank approval process had a few issues, which included, the documentation for proof of design and certification for the tank approval process. The Task Force finds that tanks may be approved by two separate processes, however, all tanks seeking approval are not applicable to each process. The Task Force also finds that a partition which is required with a septic tank must meet the minimum length to allow for water passage. Finally, the Task Force finds that tank material must be capable of resisting corrosion from sewage and other environmental impacts. The Task Force goal for Rules .1401, .1402, .1403, and .1404 is to provide more solid watertight tanks in the State to meet national standard and protect the public and environmental health.

Task Force Members were presented with changes to Rule .1706 by DHHS staff. Industry stakeholders demonstrated the need for change and to protect the public and environment from hazardous material. DHHS staff stated that they had met with manufacturers and discussed the advantages of creating an updated protocol for

manufacturers to use to draft a valid survey plan. DHHS staff introduced the new protocol that was created to assist manufacturers during the planning phase. Members expressed several concerns; however, a common concern was the failure rate plus the 95% confidence interval for the failure rate which must not exceed 10%. Additionally, Task Force Members, industry stakeholders, county department staff, and audience members expressed their concerns of the failure rate being too high and not a representation of the industry's current status. The Task Force finds that the changes made by DHHS staff meet the mission of the Task Force and satisfy the State's requirements.

**Recommendation 3:**

- I. 15A NCAC 18E .0201 General –
  - a. (d) Notwithstanding Paragraph (b) of this Rule, an owner may choose to have a wastewater system approved under the provisions of G.S. 130A-336.1 or G.S. 130A-336.2 and in accordance with Rule .0207 of this Section.
  
- II. 15A NCAC 18E .0203 Improvement Permit -
  - c. (b) An owner may choose to contract with an LSS to conduct a soil and site evaluation in accordance with G.S. 130A-335(a2). The soil and site evaluation shall be submitted to the LHD as part of the application process.
  
- III. 15A NCAC 18E .0302 Local Health Department and State -
  - d. (a) The permitting of a wastewater system shall be the responsibility of agents authorized by the State in accordance with G.S. 130A, Article 4 and 15A NCAC 01O .0100, and registered with the North Carolina State Board of Environmental Health Specialist Examiners, as required in G.S. 90A, Article 4, unless the permit is issued in accordance with G.S. 130A-336.1 or G.S. 130A-336.2 and Rule .0207 of this Subchapter.
  
- IV. 15A NCAC 18E .0303 Licensed or Certified Professionals -
  - e. (b)(7) pressure dispersal systems and pressure dosed gravity systems with a DDF greater than 600 gpd serving a single design unit;
  
- V. 15A NCAC 18E .0508 Available Space –
  - f. (c)(4) Notwithstanding the criteria for when repair area is required in accordance with Subparagraph (c) of this Rule, a site with the wastewater system trench bottom in Soil Groups I or II shall remain exempt from the repair area requirements of Paragraph (a) of this Rule when all of the following conditions are met:
    - i. (A)an application is received for an increase in flow to an existing facility permitted in accordance with Subparagraph (c)(1) of this Rule and the facility DDF remains less than or equal to 480 gpd of DSE;
    - ii. (B)there is sufficient available space for the existing system to be modified pursuant to the Rules of this Subchapter;

- iii. (C) the site for the existing system complies with the Rules of this Subchapter and the existing system is not malfunctioning in accordance with Rule .1303(a)(1) and (2) of this Subchapter; and
- iv. (D) the conditions set forth in Subparagraph (c)(2) of this Rule are met.

VI. 15A NCAC 18E .0601 Location of Wastewater Systems –

**TABLE IX.** Minimum setbacks from all wastewater systems to site features

Site Features	Setback (feet)
<u>Any transient or non-transient non-community water supply well, community well, shared water supply well, well that must comply with 15A NCAC 18A .1700, or water supply spring</u>	100
A private drinking water well or upslope spring serving a single family dwelling unit	50
Any other well or source not listed in this table, excluding monitoring wells	50
Surface waters classified WS-I, from <u>ordinary high-water elevation</u>	100
Waters classified SA, from mean high-water mark	100
Any Class I or Class II reservoir, from normal pool elevation	100
<u>Lake or pond, from normal pool elevation</u>	50
Any other stream, non-water supply spring, perennial waterbodies, or other surface waters, from the <u>ordinary high-water elevation</u>	50
<u>Tidal influenced waters, such as marshes and coastal waters, from mean high-water mark</u>	<u>50</u>
Any water <u>unless the requirements of Paragraph (i) have been met</u>	10
<u>Closed loop geothermal well</u>	15
<u>Building foundation and deck supports</u>	<u>5</u>
<u>Patio, porch, stoop, lighting fixtures, or signage, including supporting structures such as posts or pilings</u>	<u>1</u>
Any basement, cellar, or in-ground swimming pool	15
Buried storage tank or basin, except stormwater	<u>10</u>
Above ground swimming pool <u>and appurtenances that require a building permit</u>	5
Top of slope of embankment or cuts of two feet or more vertical <u>height with a slope greater than 50 percent</u>	15
	<u>15</u>

<u>Top of slope of embankment or cuts of two feet or more vertical height with a slope greater than 33 percent and less than or equal to 50 percent</u>	<u>0, if the site has suitable soil depth that extends for a minimum horizontal distance of 15 feet from the edge of the dispersal field</u>
<u>Groundwater lowering system, as measured on the ground surface from the edge of the feature</u>	25
<u>Downslope interceptor drains and surface water diversions with a vertical cut of more than two feet, as measured on the ground surface from the edge of the feature</u>	15
<u>Upslope and sideslope interceptor drains and surface water diversions with a vertical cut of more than two feet, as measured on the ground surface from the edge of the feature</u>	<u>10</u>
<u>A stormwater collection system as defined in 15A NCAC 02H .1002(48), excluding gutter drains that connect to a stormwater collection system, as measured from the center of the collection system</u>	<u>10</u>
<u>Permanent stormwater retention basin, from normal pool elevation</u>	50
<u>Bio-retention area, injection well, infiltration system, or dry pond</u>	25
<u>Any other dispersal field, except designated dispersal field repair area for project site</u>	20
<u>Any property line</u>	10
<u>Burial plot or graveyard boundary</u>	<u>10</u>
<u>Above ground storage tank (from dripline or foundation pad, whichever is more limiting)</u>	5
<u>Utility transmission and distribution line poles and towers, including guy wires</u>	<u>5</u>
<u>Utility transformer, ground-surface mounted</u>	<u>5</u>
<u>Underground utilities</u>	<u>5</u>

g. (b) Wastewater systems may be located closer than 100 feet from water supply wells or an upslope spring for repairs, space limitations, and other site-planning considerations. The wastewater system shall be located the maximum feasible distance and never less than 50 feet when one of the following conditions is met:

- i. (1) the well was constructed prior to July 1, 1993, in accordance with 15A NCAC 18A .1720; or
- ii. (2) a variance for a reduced setback has been issued in accordance with one of the following:

1. (A) 15A NCAC 02C .0118 for a shared water supply well, a wastewater system installed in saprolite, or for a transient non-community public water supply well; or
  2. (B) 15A NCAC 18C .0203(b) for a non-transient non-community public water system.
- h. (c) Wastewater systems shall not be located closer than 100 feet to and springs, uncased wells, and ungrouted wells used as a source of drinking water and located downslope from the dispersal field.
  - i. (ZZ) Underground utilities shall not encroach on the wastewater system and repair area.
  - j. (ZZY) The reduced setbacks to tanks in Table ZZZ may apply to septic tanks and pump tanks if the following have been met:
    - i. (1) a leak test has been performed on the septic tank and pump tank in accordance with Rule .0805 of this Subchapter;
    - ii. (2) the leak test also verified that the inlet and outlet pipe penetrations and riser connections to the tanks is watertight; and
    - iii. (3) the test is performed at the job site.

**TABLE X. Reduced setbacks for tanks to some site features**

<u>Site Features</u>	<u>Setback (feet)</u>
<u>Permanent stormwater retention</u>	<u>35</u>
<u>Bio-retention cell, injection well, and infiltration gallery</u>	<u>15</u>
<u>Groundwater lowering system, as measured on the ground surface from the edge of the feature</u>	<u>15</u>
<u>Any water line</u>	<u>5</u>
<u>A stormwater collection system as defined in 15A NCAC 02H .1002(48), excluding gutter drains that connect to a stormwater collection system, as measured from the center of the collection system</u>	<u>5</u>

- k. (ZYY) No minimum setback shall be required from a well that has been permanently abandoned in accordance with 15A NCAC 02C .0113 and for which a record of abandonment has been submitted in accordance with 15A NCAC 02C .0114.
- l. (h) Collection sewers shall be located the minimum setbacks to site features shown in Table IX, unless a different minimum setback is specified in Table XI.

**TABLE XI. Minimum setbacks from collection sewers to site features**

<u>Feature</u>	<u>Setback (feet)</u>
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Any public water system source, including wells, springs, and Class I or Class II reservoirs	<u>100</u>
	<u>50, if constructed of or sleeved in Schedule 80 PVC or DIP with mechanical joints equivalent to water main standards, and the collection sewer is leak tested and shown to be watertight*</u>
Any private water supply source, including wells and springs	<u>50</u>
	<u>25, if constructed of Schedule 40 pressure rated pipe or DIP with mechanical joints equivalent to water main standards, and the collection sewer is leak tested and shown to be watertight*</u>
	<u>15, if constructed of Schedule 80 PVC, sleeved in DIP or Schedule 80 PVC, and the collection sewer is leak tested and shown to be watertight*</u>
Surface waters classified WS-I, WS-II, WS-III, B, SA, or SB, from <u>ordinary high-water elevation</u>	<u>50</u>
	<u>10, if constructed of or sleeved in Schedule 80 PVC or DIP with mechanical joints equivalent to water main standards, and the collection sewer is leak tested and shown to be watertight*</u>
Any other stream, <u>non-water supply spring</u> , <u>perennial waterbodies</u> , or other surface waters, <u>from the ordinary high-water elevation</u>	10
<u>Tidal influenced waters, such as marshes and coastal waters, from mean high water mark</u>	<u>10</u>
<u>Closed loop geothermal wells</u>	5
<u>Any service connection as defined in 15A NCAC 18C .0102(c)(21)</u>	<u>5</u>
Any basement, cellar, or in-ground swimming pool	10
Top of slope of embankment or cuts of two feet or more vertical height <u>with a slope greater than 50%</u>	5

Surface water diversion, as measured on the ground surface from the edge of the diversion	5
Permanent stormwater retention basin	10
Bio-retention area, injection well, or infiltration gallery	5
Any other dispersal field except designated dispersal field repair area for project site	5
Any property line	5
Burial plot or graveyard boundary	5

VII. 15A NCAC 18E .1301 Operation and Maintenance of Wastewater Systems –  
**TABLE XXXI.** Management responsibilities based on wastewater system classification type and description

<b>System Classification Type and Description</b>	<b>LHD Compliance Inspection Frequency</b>	<b>Management Entity</b>	<b>Management Entity Minimum Maintenance Inspection Frequency</b>
Ia – Privy or vault privy <sup>Ⓜ</sup>	N/A	Owner	N/A
Ib – Chemical toilet <sup>Ⓜ</sup>	N/A	Owner	N/A
Ic – Incinerating toilet <sup>Ⓜ</sup>	N/A	Owner	N/A
Id – Composting toilet system <sup>Ⓜ</sup>	N/A	Owner	N/A
Ie – Other toilet system <sup>Ⓜ</sup>	N/A	Owner	N/A
IIa – Conventional system (single family or 480 gpd or less)	N/A	Owner	N/A
IIb – Accepted wastewater gravity system	N/A	Owner	N/A
IIIa – Conventional wastewater system greater than 480 gpd (excluding single family residences)	N/A	Owner	N/A
IIIb – Wastewater system with a single pump or siphon	5 years	Owner	<u>N/A</u>
IIIc – Gravity fill system	N/A	Owner	N/A
IIId – Alternating dual fields with gravity distribution	N/A	Owner	N/A
IIIe – PPBPS gravity system	N/A	Owner	N/A
IIIf – LDP gravity system	N/A	Owner	N/A
IIIg – Other non-conventional systems	N/A	Owner	N/A

IIIh – Gravity groundwater lowering system	5 years	Owner	<u>N/A</u>
IVa – LPP distribution	3 years	Private Certified Operator or Public Management Entity with a Certified Operator	2/year
IVb – System with more than one pump or siphon	3 years	Private Certified Operator or Public Management Entity with a Certified Operator	2/year
IVc – Off-site system serving two or more facilities with any components under common or joint control	5 years	Private Certified Operator or Public Management Entity with a Certified Operator	1/year
IVd – Alternating dual fields with pressure dosed gravity distribution including off-site systems	3 years	Private Certified Operator or Public Management Entity with a Certified Operator	1/year
Va – Advanced pretreatment meeting NSF-40, TS-I, or TS-II (approved under Section .1700 of this Subchapter) ≤ 3,000 gpd	1/year	Private Certified Operator or Public Management Entity with a Certified Operator	≤ 1,500 gpd - 2/year* > 1,500 gpd and ≤ 3,000 gpd - 4/year
Vb – DSE wastewater systems > 3,000 gpd with dispersal field > 1,500 gpd	1/year	Private Certified Operator or Public Management Entity with a Certified Operator	> 3,000 and ≤ 10,000 gpd - monthly > 10,000 gpd flow - weekly
Vc – RWTS (approved under Section .1500 of this Subchapter) meeting NSF-40 ≤ 1,500 gpd	1/year	Private Certified Operator or Public Management Entity with a Certified Operator	≤ 1,500 gpd - 2year*
Vd – Anaerobic drip dispersal systems	1/year	Private Certified Operator or Public Management Entity with a Certified Operator	≤ 1,500 gpd - 2/year* > 1,500 gpd and ≤ 3,000 gpd - 4/year > 3,000 gpd and ≤ 10,000 gpd – 12/year > 10,000 gpd – 1/week



Ve - Flow equalization	≤ 1,500 gpd – once every three years > 1,500 gpd – 1/year	Private Certified Operator or Public Management Entity with a Certified Operator	Based on equalized flow ≤ 1,500 gpd - 2/year > 1,500 and ≤ 3,000 gpd - 4/year > 3,000 gpd and ≤ 10,000 gpd – 12/year >10,000 gpd – 1/week
Vf – Sand lined trench system with no advanced pretreatment or drip dispersal	1/year	Private Certified Operator or Public Management Entity with a Certified Operator	1/year
Vg – Wastewater system with pump groundwater lowering systems	1/year	Private Certified Operator or Public Management Entity with a Certified Operator	2/year with one visit during the wet season
Vh – IPWW (as determined by the State) designed by a PE and reviewed by the State and determined to be IPWW	1/year	Private Certified Operator or Public Management Entity with a Certified Operator	≤ 1,500 gpd - 2/year* > 1,500 gpd and ≤ 3,000 gpd - 4/year > 3,000 gpd and ≤ 10,000 gpd – 12/year > 10,000 gpd – 1/week
VIa – Advanced pretreatment > 3,000 gpd meeting NSF-40, TS-I, or TS-II	6 months	Private Certified Operator or Public Management Entity with a Certified Operator	Media filters > 3,000 gpd and ≤ 10,000 gpd - 12/year >10,000 gpd – 1/week  All other advanced pretreatment > 3,000 gpd and ≤ 10,000 gpd - 12/year > 10,000 and ≤ 25,000 gpd - 2/week > 25,000 and ≤ 50,000 gpd - 3/week > 50,000 gpd - 5/week
VIb – Any system using RCW	6 months	Private Certified Operator or Public Management Entity with a Certified Operator	≤ 3,000 gpd - 12/year > 3,000 and ≤ 10,000 gpd - 1/week > 10,000 and ≤ 25,000 gpd - 2/week > 25,000 and ≤ 50,000 gpd - 3/week > 50,000 gpd - 5/week

VIII. 15A NCAC 18E .1304 Management Entity Responsible for Wastewater Operation and Maintenance -

- a. (c) The Management Entity shall provide a copy of the inspection report, including results of the VIP with respect to compliance criteria as specified

in the RWTS or PIA Approval and effluent sampling, to the owner, LHD, and manufacturer within 30 days of the system inspection.

IX. 15A NCAC 18E .1401 Plans for Prefabricated Tanks -

a. (a) All tanks proposed for use in a wastewater system described in this Subchapter shall be approved by the State Tanks shall be approved with a two-step process:

i. (1) The tank design shall be approved based on the plans and specifications submitted in accordance with Subparagraphs (c)(1) through (c)(8) of this Rule. After the tank design has been approved, a temporary identification number shall be assigned for tracking purposes.

ii. (2) The tank shall pass a structural load test as described in Subparagraph (c)(9) of this Rule. The test shall be performed and certified by a third-party. The test shall be witnessed by the State, LHD, PE, or a credentialed testing organization, such as an UL-registered or ISO/IEC 17025-accredited testing organization. After successful completion, the tank shall be assigned a permanent identification number. Tanks shall not be sold for use in a wastewater system without a permanent identification number.

iii. (3) Tanks with permanent identification numbers assigned by the State prior to the effective date of this Rule shall retain their approval without reapplication.

iv. (4) The structural design verification shall be required for new tanks, modifications to tank design, and when tank forms are sold to a different tank manufacturer.

v. (5) Pump tanks may be tested and approved with a baffle wall, without a baffle wall, or with a partial baffle wall. The most limiting design must be tested.

b. (c)(1)(C) baffle wall location and minimum and maximum thickness and variations;

i. (3) method for fastening the baffle wall to the tank interior;

ii. (7) tank manufacturer and PE requirements for installation, including bedding, additional sealing methods, and leak testing procedures; and

iii. (9) documentation of proof of design. The tank shall withstand a minimum uniform live load of 150 pounds per square foot in addition to the dead weight of the material and all geostatic and hydrostatic loads to which an underground tank is normally subjected, such as active soil pressure on tank walls and the uplifting force of groundwater. The documentation shall be one of the following:

1. (A) a vacuum test of 4.24 inches of mercury for five minutes meeting the following criteria:
  - (i) no loss in vacuum greater than 0.4 inches of mercury during the test;
  - (ii) no deformation or deflection greater than two percent along any dimension unless shown by measurement or calculation to result in a reduction in volume no greater than two percent; and
  - (iii) confirmation that no distortion of the access openings occurs during the testing that prevents removal and replacement of the access opening lids at the conclusion of the test. and for tanks constructed with integral risers, confirmation that there is no distortion of the riser during the testing and the riser lid can be removed and replaced at the conclusion of the test;
- iv. (B) calculations from a PE that the that the tank can withstand the loading requirements of this Subparagraph and the performance requirements of Part (A) of this Subparagraph shall be met; or
- v. (C) the tank shall be either IAPMO/ANSI Z1000 or CSA B66 certified and the tank manufacturer enrolled in a third-party quality assurance and quality control program, which includes material testing and unannounced annual manufacturing facility audits.
- c. (e) Plans for tanks not proposed for general use shall meet the minimum requirements of this Section and shall be approved by the State.

X. 15A NCAC 18E .1402 Tank Design and Construction -

- a. (d)(11) all septic tanks shall be designed with a partition so that the tank contains two compartments. The following conditions shall be met:
  1. (D) the top and bottom sections of the partition shall be designed to create a water passage slot four inches high for the full interior width of the tank, or a minimum of two four or five-inch openings, or one four or five-inch opening per 30 horizontal linear inches of baffle wall, whichever is greater, may be designed into the partition instead of the four-inch slot;
  2. (E) the partition shall be designed, manufactured, and installed to create an average opening not greater than one-half inch between the partition and the tank wall below the liquid level, with a tolerance of one-half inch;
- b. (d)(13) access risers and covers shall be designed and manufactured to prevent surface water infiltration;

- c. (d)(15) all septic tanks shall bear an imprint or embossment identifying the manufacturer, the septic tank serial number assigned to the manufacturer's plans and specifications approved by the State, and the liquid or working capacity of the tanks. The imprint or embossment shall be located to the right of the blockout made for the outlet pipe on the top or end of outlet end of the tank.
- d. (e)(8) all pump tanks shall bear an imprint or embossment identifying the manufacturer, the pump tank serial number assigned to the manufacturer's plans and specifications by the State, and the liquid or working capacity of the tank. The imprint or embossment shall be located to the left of the blockout made for the outlet pipe on the top or end of outlet end of the tank; and
- e. (g)(3) have the invert of the inlet pipe three inches above the siphon trip level; and
- f. (g)(4) have a watertight access opening over each siphon with an opening of 24 inches, extending to finished grade, and designed to prevent surface water inflow.

XI. 15A NCAC 18E .1403 Tank Material Requirements -

- a. (a) Tanks approved in accordance with this Section shall be constructed of materials capable of resisting corrosion from sewage and sewage gases, structurally sound and watertight.
- b. (b)(6) the concrete shall achieve a minimum 28-day compressive strength of 4,000 psi. The concrete shall meet a compressive strength of 3,500 psi prior to removal of the tank from the place of manufacture. It shall be the responsibility of the manufacturer to certify that the tank meets this condition;
- c. (c) Thermoplastic tank materials shall conform with IAPMO/ANSI Z1000 or CSA B66 requirements.
- d. (d)(2) material and laminate requirements specified in IAPMO/ANSI Z1000 or CSA B66 for glass-fiber-reinforced polyester tanks; and

XII. 15A NCAC 18E .1404 Plans and Specifications for Risers, Effluent Filters, and Pipe Penetration Boots –

- a. (c) Risers and riser lids shall be able to withstand a minimum uniform live loading of 300 pounds per square foot or a minimum 1,500 pound load applied in a 10 inch by 10 inch area centered on the lid, in addition to all loads to which a riser
- b. (d)(6) plans for pump tank risers of primary and secondary safety mechanisms that shall be provided with the riser. The primary safety mechanism shall be a locking riser lid, ring and lock, or other riser lid locking or tamper-resistant mechanism. The secondary safety mechanism

shall be a secondary lid, concrete plug, or other safety device to be provided inside the pump tank riser; and

- XIII. 15A NCAC 18E .1405 Risers, Effluent Filters, and Pipe Penetration Boots Approval Renewal –
- a. (b)(1) company’s name, address, and current contact information;
- XIV. 15A NCAC 18E .1406 Modification, Suspension, and Revocation of Approvals
- a. The State shall modify, suspend, or revoke the approval for tanks, risers, effluent filters, or pipe penetration boots upon a finding that:
    - i. (1) approval is determined to be based on false, incomplete, or misleading information;
    - ii. (2) the product has been altered;
    - iii. (3) the product fails to perform in compliance with performance standards established for the product in accordance with the Rules of this Section; or
    - iv. (4) the product fails to meet conditions of its approval or comply with G.S. 130A, Article 11, Rule .1405 of this Section, this Subchapter, or conditions of the approval.
- XV. 15A NCAC 18E .1706 Approval Criteria for Accepted Systems –
- a. (b) The following information shall be provided by the petitioner and reviewed by the Commission prior to granting Accepted System status:
    - i. (1) documentation of a minimum of 300 systems installed statewide and in use for more than five years as an approved Innovative System or a wastewater dispersal system identified in the Rules of this Subchapter;
    - ii. (2) data and findings of all prior evaluations of the system performance as provided by the manufacturer;
    - iii. (3) results of prior performance surveys of the systems in use in North Carolina for at least the five-year period immediately preceding the petition, including any information available to the manufacturer pertinent to the accuracy and validity of performance surveys not completed under their control;
    - iv. (4) review(s) of records on system use and performance reported by LHDs, authorized designers, installers, and Management Entities documenting the experiences with performance of the system in North Carolina, including information collected and reported in accordance with Rules .1711 and .1713 of this Section. The Department in consultation with the manufacturer shall evaluate the accuracy and validity of performance data and surveys considered

for inclusion in the review. LHDs and other stakeholders shall be invited to participate in the discussion; and

- v. (5) the results of a statistically valid survey of system performance in North Carolina in accordance with Paragraphs (c),(d), or (g).
- b. (c) The manufacturer shall propose a plan for the statistically valid survey. The Department shall concur with the proposed survey plan prior to the survey being performed. The plan shall specify the following information:
  - i. (1) number of systems to be evaluated;
  - ii. (2) period of evaluation;
  - iii. (3) method to randomly select systems to be evaluated;
  - iv. (4) methods of field and data evaluation; and
  - v. (5) proposed survey team members, including proposed cooperative arrangements to be made with Department and LHD staff.
- c. (d) The proposed survey shall meet one of the following survey protocols:
  - i. (1) a field survey of test and control systems that compares the failure rates between the systems. Statistical analysis of the survey results using a one-sided test shall document at the 95 percent confidence level that there is only a five percent chance that a difference in failure rates of five percentage points or more would occur by chance. The field survey shall meet the following criteria:
    - 1. (A) a minimum of 250 randomly selected test and control systems that have been in operation for at least two years and are currently in use, for a total of at least 500 systems that are surveyed;
    - 2. (B) a minimum of 40 percent of both test and control systems shall have been in operation for at least five years;
    - 3. (C) systems surveyed shall be distributed throughout the three physiographic regions in the State in approximate proportion to their use across the State;
    - 4. (D) systems shall be evaluated from February 1 through April 15; and
    - 5. (E) matched numbers of test and control systems of similar ages shall be surveyed during similar time periods across the State; or
  - ii. (2) a field survey of test systems only. The failure rate determined by the field survey plus the 95 percent confidence interval for the failure rate shall not exceed 10 percent. The 95 percent confidence interval is based upon the number of sites surveyed. The field survey for test systems only shall meet the following criteria:

1. (A) the system is identified in the Rules of this Subchapter and the manufacturer provides documentation that there have been at least 3,000 operational systems installed in the state in more than one county in the State. The systems shall have been installed over at least an eight-year period with a total reported failure rate statewide of less than two percent. The statewide failure rate is based on records provided by the manufacturer and monthly activity reports from the LHD;
  2. (B) a minimum of 200 randomly selected systems that are currently in operation are surveyed; and
  3. (C) the survey criteria in Subparagraph (d)(1) are met
- d. (e) The Department shall facilitate LHD participation with any performance review or survey.
  - e. (f) The Department shall utilize the Division of Public Health's State Center for Health Statistics for assistance in evaluating the statistical validity of the proposed evaluation protocols.
  - f. (g) Other criteria for determining whether the test system has been in general use and other survey protocols, which evaluate different numbers of test and control systems or test systems only may be approved by the Department. The survey protocol shall be designed to verify equal or superior performance of the test system when compared to the control system under actual field conditions in North Carolina. The alternative survey protocol shall be demonstrated to have comparable statistical validity as described in Subparagraph (d) of this Rule. The Department's review and approval of proposed alternate criteria for determining whether the system has been in general use or alternative survey protocols are subject to review and concurrence by the Commission.





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## COMMITTEE MEMBERSHIP

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2019-2020

Mr. William Russell Davis, Chair  
Ms. Trisha Angoli  
Mr. Steve Barry  
Mr. James L. Beeson  
Mr. Stephen W. Bristow

Mr. Duke Geraghty  
Mr. Stacey Harris  
Mr. Doug Lassiter  
Mr. Jerry O. Pearce  
Mr. Stacey Smith

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## COMMITTEE CHARGE/STATUTORY AUTHORITY

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The Task Force shall conduct a study and issue a report to recommend new wastewater rules to the Commission of Public Health. In conducting this study, the Task Force may collaborate with any stakeholders it deems appropriate. The report must make recommendations for all of the following:

1. New rules to replace the rules adopted by the Commission for Public Health and approved by the Rules Review Commission, which were to be codified in Chapter 18E of Title 15A of the North Carolina Administrative Code. The new rule recommendations should replace the rules disapproved by Section 1 through Section 4 of this act, as well as any rules that meet all of the following criteria: (i) adoption by the Commission of Public Health on August 8, 2018, (ii) approval by the Rules Review Commission on October 18, 2018, or November 15, 2018, (iii) codification in Chapter 18E of Title 15A of the North Carolina Administrative Code, and (iv) relation to on-site wastewater treatment and dispersal.
2. New rules to prevent the implementation of rules and ordinances and enforcement against the use of on-site wastewater treatment and dispersal systems in non-sewered areas of the State.

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## SUPPORTING DOCUMENTATION

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### SESSION LAW 2019-151

SECTIONS 1-12

### HISTORY

- AFTER 25 YEARS, THE RULES CONCERNING ONSITE WASTEWATER SYSTEMS FOUND IN 15A-NCAC .1900 WERE REVIEWED AS A BODY OF RULES.
- THE RULES WERE RE-FORMATTED TO FORM 15A NCAC 18E. THE NEW FORMAT IS DIVIDED INTO 99 SECTIONS.
- AFTER THE DRAFTS OF THE NEW RULES WERE GIVEN PUBLIC COMMENT AND PUBLIC MEETING, THE 18E RULES WERE PRESENTED TO THE COMMISSION FOR PUBLIC HEALTH AND ADOPTED IN AUGUST, 2018.
- THE 18E RULES WENT TO THE RULES REVIEW COMMISSION IN TWO PARTS: IN OCTOBER, THEN NOVEMBER, 2018.

## HISTORY...PART 2

- ACCORDING TO GENERAL STATUTE, A PERSON CAN SUBMIT A “LETTER OF OBJECTION” TO ANY SPECIFIC RULE, REQUESTING LEGISLATIVE REVIEW.
- IF A MINIMUM OF 10 LETTERS OF OBJECTION ARE RECEIVED TO ANY SPECIFIC RULE, THE RULE GOES TO THE GENERAL ASSEMBLY.
- UNDER GENERAL STATUTES, LEGISLATION HAS TO BE INTRODUCED WITHIN 30 DAYS OF THE START OF THE SESSION, AND THERE MUST BE ACTION BY THE END OF SESSION. INABILITY TO MEET THESE DEADLINES MEAN THE IMMEDIATE EFFECTIVE DATE OF THE 18E RULES AS ADOPTED.

## DISAPPROVED SECTIONS

- .0103 Incorporation by Reference
- .0105 Definitions
- .0303 Licensed or Certified Professionals
- .0401 Design Daily Flow **(BY S.L. 2013-413 AND S.L. 2014-120)**
- .0402 Septic Tank Effluent Characteristics **(BY S.L. 2013-413 AND S.L. 2014-120)**
- .0403 Adjustments to Design Daily Flow **(BY S.L. 2013-413 AND S.L. 2014-120)**
- .0505 Soil Depth
- .0508 Available Space **(BY S.L. 2015-147)**
- .0805 Tank Leak Testing & Installation Req.
- .1401 Plans for Prefabricated Tanks
- .1402 Tank Design and Construction
- .1404 Plans, Specs for Risers, Filters, Boots

## DISAPPROVED SECTIONS... PART 2

- .1002 Reclaimed Water Systems
- .1101 General Dosing System Requirements
- .1102 Pump Dosing
- .1104 Siphon Dosing
- .1105 Timed Dosing
- .1106 Pressure Dosed Gravity Dist. Devices
- .1202 Siting and Sizing Criteria, Adv. Treatment for <1500 gpd
- .1203 Siting and Sizing Criteria, Adv. Treatment for >1500 gpd and <3000 gpd

## DISAPPROVED SECTIONS PART 3

- .1204 Advanced Pretreat, Drip Dispersal
- .1205 Advanced Pretreat, Sand Lined Trench
- .1206 Advanced Pretreat, Bed Systems
- .1301 O & M for Wastewater Systems **(BY S.L. 2015-147)**
- .1303 Owner Responsibilities, O & M
- .1304 Mgt. Entity Responsibilities
- .1305 LHD Responsibilities, O & M
- .1306 System Malfunction & Repair
- .1307 Wastewater System Abandonment
- .1701 General
- .1702 Application

## DISAPPROVED SECTIONS PART 4

- .1703 Dept. & Commission Application Review
- .1704 Approval of Provisional Systems
- .1705 Approval of Innovative Systems
- .1706 Approval of Accepted Systems
- .1707 Design & Installation of PIA Approvals
- .1708 Modifications, Suspension of Approvals **(BY S.L. 2014-120)**
- .1709 Sampling Requirements for Adv. Systems
- .1710 Compliance Criteria for Adv. Systems
- .1711 PIA Renewals
- .1712 Auth. Designers, Installers, Mfr. Reps.
- .1713 LHD Responsibilities

## SO BEGAN HOUSE 268...



CREATE A 10 MEMBER TASK FORCE OF INDUSTRY PROFESSIONALS, NOT LEGISLATIVE MEMBERS, TO REVIEW AND SEEK RESOLUTION TO THE "DISAPPROVED" SECTIONS.

## AUTHORITY GIVEN SECTION 9

- Recommend New Rules to replace the 18E rules passed by the Commission
- Includes **any rule** that was in the adopted 18E rules
- Recommend New rules to prevent the implementation of rules and ordinances and enforcement against the use of onsite systems in non-sewered areas.

## AUTHORITY GIVEN

- SECTION 10:
- PREPARE A RECOMMENDATION REPORT FOR THE COMMISSION AND GENERAL ASSEMBLY COMMITTEES.
- RECOMMENDATION REPORT MUST BE TRANSMITTED NO LATER THAN FEB.1, 2020.
- OTHERWISE THE 18E RULES AS ADOPTED WILL BECOME IMMEDIATELY EFFECTIVE.





## **“RECOMMENDATIONS ONLY”**

- The Session Law only allows the Task Force to make Recommendations. OUR RECOMMENDATIONS ARE NOT A MANDATE TO THE COMMISSION FOR PUBLIC HEALTH.
- After receiving our Report, the Commission continues to have Rule-Making Authority on the on-site wastewater rules.
- The Commission can adopt new rules in favor of our Recommendations to replace the adopted rules.
- The Commission can refuse to change the adopted Rules in favor of our Recommendations.

## **SHORT WINDOW OF OPPORTUNITY**

- By Session Law 2019-151, the Recommendations Report must be to the Commission and committees within the General Assembly by Feb.1, 2020.
- **SHORT LIFE SPAN**
- **Approved by the Governor on July 22 2019**
- **Expires Feb.1, 2020.**
- **193 days, including weekends.**
- **We are on Day 77**



## QUESTIONS?

- **SUGGESTIONS:**

- MAKE RECOMMENDATIONS ON EACH INDIVIDUAL SECTION.**

- PRIORITIZE EFFORTS ON DISSAPPROVED SECTIONS AND THEN INVESTIGATE OTHER SECTIONS AS TIME ALLOWS.**

- LIMIT THE NUMBER OF ACTUAL PHYSICAL LOCATION MEETINGS**

- COMMUNICATE WITH YOUR REPRESENTED BODY IMMEDIATELY. HAVE RECOMMENDATIONS IN WRITTEN FORM.**