15A NCAC 18E .0402 SEPTIC TANK EFFLUENT CHARACTERISTICS

(a) Septic tank effluent standards for DSE shall be as set forth in Table III of this Paragraph. Effluent that exceeds these standards for any constituent shall be considered HSE. When measured, effluent characteristics shall be based on at least two effluent samples collected during normal or above-normal operating periods. A normal period is when the occupancy, operation, or use of the facility is average when compared to the occupancy, operation, or use over a time frame of a minimum of one year. The samples shall be taken from the existing or a comparable facility on non-consecutive days of operation. A comparable facility is based on documentation showing that the hours of operation, floor plan, water use practices, water-using fixtures, location, etc., are similar to the facility listed in the application. The samples shall be analyzed for a minimum of BOD_5, TSS, TN, and FOG.

Table III. Septic tank effluent standards for DSE

Constituent	**Maximum DSE mg/L**
BOD	≤ 350
TSS	≤ 100
TKN	≤ 100
FOG	≤ 30

(b) Designs for facilities that generate HSE or when an adjusted DDF is proposed in accordance with Rule .0403 shall address the issue of wastewater strength in accordance with one of the following:

(1) Wastewater systems that meet one of the following criteria shall utilize advanced pretreatment, designed in accordance with Rule .1201(b) of this Subchapter, to produce DSE or better prior to dispersal:
   (A) DDF greater than 1,500 gpd and HSE;
   (B) any proposed flow reduction in accordance with Rule .0403 of this Section where the DDF is greater than 1,500 gpd; or
   (C) any proposed flow reduction in accordance with Rule .0403 of this Section with projected or measured effluent characteristics that exceed DSE as set forth in Table III of this Rule; or

(2) A licensed professional, in accordance with G.S. 89C, 89E, or 89F, may justify not using advanced pretreatment by providing the following, as applicable:
   (A) the system design is determined based upon a mass loading adjusted LTAR calculated using site-specific LTAR and projected or measured BOD_5 and TSS values. The adjusted LTAR calculations shall be done as follows:

	MLAF =	300/(BOD_5 + TSS) or one, whichever is smaller
	ALTAR =	MLAF x LTAR
Where	MLAF =	mass loading LTAR adjustment factor
	BOD_5 =	measured or projected
	TSS =	measured or projected
	LTAR =	LTAR assigned by the authorized agent for DSE in accordance with this Subchapter
	ALTAR =	adjusted LTAR

   (B) site-specific nitrogen migration analysis when projected or measured effluent total nitrogen levels are greater than 100 mg/L. Analysis shall demonstrate that the nitrate-nitrogen concentration at the property line will not exceed 10 mg/L; and
   (C) additional pretreatment to reduce FOG to less than or equal to 30 mg/L, including justification for the proposed pretreatment method.

(c) The requirements of Paragraph (b) shall not apply if the effluent for a specific facility identified in Rule .0401 of this Section as HSE has been measured in accordance with Paragraph (a) of this Rule and shown to be DSE.

History Note: *Authority G.S. 130A-335(e); S.L. 2013-413, s.34; S.L. 2014-120, s.53; S.L. 2023-77, s.10; Eff. January 1, 2024;*

Amended Eff. June 1, 2026.