15A NCAC 18E .0908 DRIP DISPERSAL SYSTEMS

(a) This Rule provides for the permitting of drip dispersal systems receiving DSE. Drip dispersal systems shall comply with the provisions of this Rule and Section .1600 of this Subchapter.

(b) Drip dispersal systems with advanced pretreatment shall comply with Rule .1204 of this Subchapter.

(c) Drip dispersal systems receiving DSE shall meet the following soil and site criteria:

(1) A minimum of 18 inches of naturally occurring suitable soil above a LC, 13 inches of naturally occurring suitable soil above a SWC, and the minimum vertical separation to any LC shall be 12 inches. A groundwater lowering system may be used to comply with the vertical separation to a SWC when only Group I or II soils with suitable structure are present within 36 inches of the naturally occurring soil surface.

(2) For new fill, the soil and site shall meet the following criteria:

(A) Rule .0909(b) and (c) of this Section, except as otherwise specified in this Subparagraph;

(B) no SWC shall exist within the first 12 inches below the naturally occurring soil surface. A groundwater lowering system shall not be used to comply with the initial site requirements for a new fill system; and

(C) minimum vertical separation to any unsuitable soil horizon or rock shall be 18 inches and 12 inches for any SWC.

(3) For existing fill, the soil and site shall meet the following criteria:

(A) Rule .0909(d) and (e) of this Section, except as otherwise specified in this Subparagraph; and

(B) minimum vertical separation to any LC shall be 24 inches.

(d) Tables XXIII and XXIV shall be used to determine the LTAR for all DSE drip dispersal systems:

(1) Table XXIII shall be used for systems utilizing soil. The LTAR shall be based on the most limiting, naturally occurring soil horizon within 18 inches of the naturally occurring soil surface or to a depth of 12 inches below the infiltrative surface, whichever is deeper;

(2) Table XXIV shall be used for systems utilizing saprolite. The LTAR shall be based on the most limiting, naturally occurring saprolite to a depth of 24 inches below the infiltrative surface;

(3) the LTAR for new fill systems shall not exceed 0.5 gpd/ft^2 for Group I, 0.3 for gpd/ft^2 Group II, 0.15 gpd/ft^2 for Group III or 0.05 gpd/ft^2 for Group IV soils, respectively;

(4) sections of blank tubing without emitters shall not count towards the minimum dripline length required; and

(5) the DDF shall be divided by the LTAR, determined from Table XXIII or XXIV, to determine the minimum dispersal field area required. The minimum dripline length shall be determined by dividing the required area by the maximum line spacing of two feet. The designer may recommend additional linear footage as soil and site conditions allow. The following equations shall be used to calculate the minimum dispersal field area and dripline length required:

MA = DDF / LTAR

DL = MA / LS

Where MA = minimum dispersal field area, in ft^2

DDF = design daily flow, in gpd

LTAR = in gpd/ft^2

DL = dripline length, in feet

LS = two-foot line spacing

TABLE XXIII. LTAR for DSE drip dispersal systems based on Soil Group and texture class

Soil Group	USDA Soil Textural Class		LTAR in gpd/ft^2
I	Sands	Sand	0.4 – 0.6
		Loamy Sand	
II	Coarse Loams	Sandy Loam	0.3 – 0.4
		Loam	
III	Fine Loams	Sandy Clay Loam	0.15 – 0.3
		Silt Loam	
		Clay Loam	
		Silty Clay Loam	
		Silt	

IV	Clays	Sandy Clay	0.05 – 0.2
		Silty Clay	
		Clay	

TABLE XXIV. LTAR for DSE drip dispersal systems based on Saprolite Group and texture class

Saprolite Group	Saprolite Textural Class	LTAR in gpd/ft^2
I	Sand	0.3 – 0.4
	Loamy sand	0.25 – 0.35
II	Sandy loam	0.2 – 0.3
	Loam	0.1 – 0.2
	Silt Loam	0.05 – 0.1

(e) A special site evaluation shall be required in accordance with Rule .0510 of this Subchapter, as applicable.

(f) Drip dispersal installation shall be in accordance with the following criteria:

(1) dripline shall be installed in accordance with the approved design. The design shall specify installation depth, installation equipment, blanking, drainback prevention, and any other site-specific design requirements identified by the designer;

(2) dripline shall be installed a minimum of one inch into naturally occurring soil, except when installed in a fill system;

(3) driplines shall be installed level. A maximum variance of plus or minus two inches shall be allowed within any contiguous section of dripline containing drip emitters;

(4) a minimum of six inches of cover shall be maintained over the dripline. The six inches of cover may be met by the addition of up to six inches, after settling, of suitable Group II or III soil over the drip field;

(5) drip dispersal fields shall be sloped to shed surface water;

(6) if cover material is required and the slope is greater than 30 percent, a slope stabilization plan shall be provided by a licensed professional if required in G.S. 89C, 89E, or 89F; and

(7) the drip dispersal system shall be field tested after installation in accordance with Rule .1603 of this Subchapter.

History Note: *Authority G.S. 130A-335(e) and (f); S.L. 2024-49, s.4.34;*
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