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) Wastewater systems utilizing advanced pretreatment with a DDF less than or equal to 1,500 gpd may only use one of the following modifications to system siting and sizing criteria, unless otherwise identified in this Rule:

(1) reduction in depth to LC or vertical separation to LC in accordance with Paragraph (b) of this Rule;

(2) LTAR increase in accordance with Paragraph (c) of this Rule; or

(3) setback reductions in accordance with Paragraph (d) of this Rule.

(b) The minimum required vertical separation to a LC in natural soil may be reduced with the use of advanced pretreatment in accordance with Table XXVI. Table XXVII provides the minimum depths and vertical separation for new and existing fill. A special site evaluation shall be submitted and approved in accordance with Rule .0510 of this Subchapter when a reduction in vertical separation to a LC is proposed in accordance with this Rule.

Table XXVI. Minimum vertical separation to LC based on effluent standards for wastewater systems with a DDF less than or equal to 1,500 gpd

Minimum vertical separation in inches from infiltrative surface to LC					
Soil Group	**Distribution Method**	**Effluent Standard****			
		DSE*	**NSF/ANSI 40**	**TS-I**	**TS-II**
I	Gravity	18	12	12	12
	LPP	12	12	9	6
	Drip	12	12	9	6
II-IV	Gravity	12	12	9	9
	LPP	12	12	9	6
	Drip	12	12	9	6

*For comparison

**12-inch vertical separation shall always be maintained to rock or tidal water

Table XXVII. Minimum depth to LC and vertical separation to SWC in new or existing fill based on effluent standards for wastewater systems with a DDF less than or equal to 1,500 gpd for new fill and less than or equal to 480 gpd for existing fill

Minimum depth in inches from naturally occurring soil surface or existing fill surface to LC					
Type of Fill	**Distribution Method**		**Effluent Standard**		
		DSE**	**NSF/ANSI 40**	**TS-I**	**TS-II**
New Fill	Gravity	18 to LC 12 to SWC	18 to LC 12 to SWC	14 to LC 12 to SWC	14 to LC 12 to SWC
	LPP	18 to LC 12 to SWC	18 to LC 12 to SWC	12	12
	Drip	18 to LC 12 to SWC	18 to LC 12 to SWC	12	12
Existing Fill	Gravity LPP Drip	24 of Group I Fill or Soil to LC 18 of Group I Fill or Soil to SWC			
Minimum vertical separation in inches from infiltrative surface to LC*					
Type of Fill	**Distribution Method**	**Effluent Standard**			
		DSE**	**NSF/ANSI 40**	**TS-I**	**TS-II**
New Fill	Gravity	24 to LC 18 to SWC	18 to LC 18 to SWC	18 to LC 14 to SWC	18 to LC 14 to SWC
	LPP	18 to LC	18 to LC	12 to LC	9 to LC

		12 to SWC	12 to SWC	9 to SWC	6 to SWC
	Drip	18 to LC 12 to SWC	18 to LC 12 to SWC	12 to LC 9 to SWC	9 to LC 6 to SWC
Existing Fill	Gravity	48	36	24	24
	LPP	24	18	12	12 to LC 9 to SWC
	Drip	24	18	12	12 to LC 9 to SWC

*Minimum depth after adjustment for slope correction

**For comparison

(c) The LTAR shall be based on the effluent standard and dispersal field type proposed in accordance with the following:

(1) The LTAR may be increased by the following factors when compared to the rate assigned by the authorized agent for a new system using DSE:

(A) up to 1.33 for NSF/ANSI 40 effluent standards in soils which are Group I or II with suitable structure;

(B) up to 2.0 for TS-I or TS-II effluent standards when pressure dispersal is utilized; or

(C) up to 2.5 for TS-II effluent standards when all the following conditions are met: minimum of 36 inches of Group I soils from the naturally occurring soil surface; minimum depth to a SWC below the naturally occurring soil surface is 24 inches; space shall be available for an equivalently sized dispersal field repair area; and pressure dispersal shall be utilized.

(2) A special site evaluation, if required in accordance with Rule .0510 of this Subchapter, shall be submitted and approved.

(3) The LTAR for an aerobic drip system shall be determined in accordance with Rule .1204 of this Section.

(4) Trench dispersal products approved for a specific dispersal field reduction in area or trench length when receiving DSE in accordance with this Subchapter or a PIA Approval shall not be reduced by more than 50 percent when any LTAR adjustments are taken in accordance with this Rule.

(5) When using pressure dispersal systems, the proposed LTAR increases in Subparagraph (c)(1) of this Rule may be used concurrently with the reduced setbacks for TS-II Systems in Table XXVIII.

(6) The DDF shall not be increased by the addition of advanced pretreatment to an existing wastewater system by more than 33 and one-third percent on a site without repair area or by more than 50 percent on a site with 100 percent repair area.

(d) Advanced pretreatment systems shall meet the following setback requirements:

(1) minimum setback requirements of Section .0600 of this Subchapter shall be met, except as shown in Table XXVIII; and

(2) when any other siting or sizing modifications are applied, such as reduced depth to LC, vertical separation, or increased LTAR, for a TS-I or TS-II system in accordance with Paragraphs (b) and (c) of this Rule, no setback reductions shall be taken except those to artificial drainage systems described in Table XXVII, unless otherwise specified in this Section.

Table XXVIII: Setbacks for wastewater systems meeting NSF/ANSI 40, TS-I, or TS-II effluent standards

Site Features	**Setback in feet according to Effluent Standard****			
	DSE*	**NSF/ANSI 40**	**TS-I**	**TS-II**
Surface waters classified WS-I, from ordinary high-water mark	100	70	70	50
Waters classified SA, from mean high-water mark	100	70	70	50
Any Class I or Class II reservoir, from normal water level	100	70	70	50
Any other stream, non-water supply spring, or other surface water, from the ordinary high-water mark	50	35	35	25
Tidal influenced waters, such as marshes and coastal water, from mean high-water mark	50	35	35	25

Lake or pond, from normal water level	50	35	35	25
Groundwater lowering system, as measured on the ground surface from the edge of the feature	25	25	20	15
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	15	15	10	10
Upslope and side slope 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	10	10	7	5
A stormwater collection system as defined in 15A NCAC 02H .1002(48), excluding gutter drains that connect to a stormwater collection system, with a vertical cut of more than two feet as measured from the center of the collection system	10	10	7	5
Permanent stormwater retention basin, from normal water level	50	50	35	25
Any other dispersal field, except designated dispersal field repair area for project site	20	20	10	5

*For comparison

**May require a variance from DEQ based on local buffer rules.

History Note: *Authority G.S. 130A-334; 130A-335; 130A-342; 130A-343;*
Eff. January 1, 2024.