

## SECTION .1100 – SYSTEM DOSING AND CONTROLS

### 15A NCAC 18E .1101 GENERAL DOSING SYSTEM REQUIREMENTS

- (a) Dosing systems with a single pump or siphon shall be required to be used to deliver effluent into laterals when:
- (1) gravity distribution cannot be achieved between the septic tank and dispersal field;
  - (2) the total lateral length exceeds 750 linear feet in a single system; or
  - (3) a pressure dosed gravity distribution or pressure dispersal system is used.
- (b) Dosing systems with multiple alternating or sequencing pumps or siphons shall be used to discharge to separate dispersal fields when:
- (1) DDF from a single system exceeds 3,000 gpd; or
  - (2) the total line length exceeds 2,000 linear feet in a single trench system or 5,000 linear feet in a drip dispersal system.
- (c) If alternating pumps or siphons are not required in accordance with Paragraph (b) of this Rule, but used, then the alternating pumps or siphons may discharge to a single dispersal field.
- (d) The dose volume to a dispersal field shall be calculated as follows:
- (1) 66 to 75 percent of the volume of the installed linear lateral footage for pressure dosed gravity distribution systems;
  - (2) 66 to 75 percent of the volume of the installed linear lateral footage for LDP systems and trench products with a PIA approval based on lateral capacity equivalent to the capacity of a four-inch corrugated pipe;
  - (3) LPP systems in accordance with Rule .0907(e)(14)(B) of this Subchapter; and
  - (4) drip dispersal systems in accordance with Rule .1602(f)(3) of this Subchapter.
- (e) The pump operating flow rate from a dosing system shall be designed to achieve scour velocity in the supply line and to distribute effluent in accordance with the dispersal field design.
- (f) The pump operating flow rate or average pump run time shall be within 25 percent of the initial measurements collected during the final inspection.
- (g) All dosing systems shall be tested using water prior to issuance of an OP or the ATO. The test may be conducted by the installer. The installer shall give the LHD, LSS, authorized designer, AOWE, or PE, as applicable, the option to witness the test. A PE and AOWE shall be authorized to witness the dosing tests for systems they have designed and for LHD permits upon a signed acceptance of responsibility for the verification of the dosing system. The dosing test shall include a demonstration and documentation of the following:
- (1) pump or siphon operating flow rate and dose volume delivered;
  - (2) float control levels;
  - (3) high-water alarm, including sound;
  - (4) operating pressure head, if applicable; and
  - (5) delivery of water to the dispersal field.
- (h) Documentation of the dosing system test results shall be provided to the LHD, PE, or AOWE for attachment to the permit or NOI, as applicable.

*History Note:* Authority G.S. 130A-335(e), (f), and (g); S.L. 2023-77, s.18;  
Eff. January 1, 2024;  
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