

## SECTION .0400 - DESIGN STANDARDS

### 15A NCAC 02U .0401 DESIGN CRITERIA FOR RECLAIMED WATER TREATMENT FACILITIES

- (a) The requirements in this Rule shall apply to all new and expanding reclaimed water treatment facilities.
- (b) Continuous on-line monitoring and recording for turbidity or particle count and flow shall be provided prior to storage, distribution, or utilization of reclaimed water.
- (c) Effluent from the treatment facility shall not be discharged to the storage, distribution, or utilization system if the turbidity exceeds 10 NTUs or if the permitted pathogen levels cannot be met. The facility shall have the ability to use alternate wastewater management options when the effluent quality is not sufficient.
- (d) An automatically activated standby power source or other means to prevent improperly treated wastewater from entering the storage, distribution, or utilization system shall be provided.
- (e) The permit shall require an operator certified by the Water Pollution Control System Operators Certification Commission (WPCSOCC) of a grade equivalent or greater than the facility classification to be on call 24 hours per day.
- (f) No storage facilities are required if it can be demonstrated that other permitted means of disposal are available if 100 percent of the reclaimed water cannot be used. When provided, storage units shall meet the design requirements in Rule .0402(f) of this Section.
- (g) Reclaimed water irrigation system design shall not exceed the recommended precipitation rates established in the soils report prepared pursuant to Section .0200 of this Subchapter. Single-family residential irrigation systems and commercial irrigation systems permitted pursuant to Rule .0113(8) of this Subchapter do not require preparation of a soils report.
- (h) All open-atmosphere treatment lagoons and ponds and open-atmosphere storage units shall have at least two feet of freeboard.
- (i) Type 2 reclaimed water treatment facilities shall provide dual disinfection systems containing UV disinfection and chlorination or equivalent dual disinfection processes to meet pathogen control requirements.
- (j) Type 2 reclaimed water treatment facilities shall provide documentation that the combined treatment and disinfection processes are capable of the following:
  - (1) log 6 or greater reduction of E. coli;
  - (2) log 5 or greater reduction of Coliphage; and
  - (3) log 4 or greater reduction of Clostridium perfringens.
- (k) Automatically activated irrigation systems shall be connected to a rain or moisture sensor to prevent irrigation during precipitation events or wet conditions that would cause runoff.

*History Note: Authority G.S. 143-215.1; 143-215.3(a);  
Eff. June 18, 2011;  
Readopted Eff. September 1, 2018.*