

**15A NCAC 02C .0111    DISINFECTION OF WATER SUPPLY WELLS**

(a) Any person constructing, repairing, testing, or performing maintenance or installing a pump in a water supply well shall disinfect the well upon completion of construction, repairs, testing, maintenance, or pump installation.

(b) Any person disinfecting a well shall perform disinfection in accordance with the following procedures:

- (1) Chlorination.
  - (A) Hypochlorite shall be placed in the well in sufficient quantities to produce a chlorine residual of at least 100 parts per million (ppm) in the well. Stabilized chlorine tablets or hypochlorite products containing fungicides, algaecides, or other disinfectants shall not be used. Chlorine test strips or other quantitative test methods shall be used to confirm the concentration of the chlorine residual.
  - (B) The hypochlorite shall be placed in the well by one of the following or equivalent methods:
    - (i) Granular hypochlorite may be dropped in the top of the well and allowed to settle to the bottom; or
    - (ii) Hypochlorite solutions shall be placed in the bottom of the well by using a bailer or by pouring the solution through the drill rod, hose, or pipe placed in the bottom of the well. The solution shall be flushed out of the drill rod, hose, or pipe by using water or air.
  - (C) The water in the well shall be agitated or circulated to ensure thorough dispersion of the chlorine.
  - (D) The well casing, pump column, and any other equipment above the water level in the well shall be rinsed with the chlorine solution as a part of the disinfecting process.
  - (E) The chlorine solution shall stand in the well for a period of 24 hours or more.
  - (F) The well shall be pumped until there is no detectable total chlorine residual in water pumped from the well before the well is placed in use.
- (2) Other alternate materials and methods of disinfection, at least as effective as those set forth in Subparagraph (b)(1) of this Rule, may be used upon prior approval by the Department. A written request for approval of alternate disinfection methods or materials shall be submitted to the Director and will be approved or denied on a case-by-case basis following a review of the information submitted in this Subparagraph. The written request shall include the following information:
  - (A) a demonstration that the method of disinfection will be at least as effective as chlorination as described under in Subparagraph (b)(1) of this Rule;
  - (B) a demonstration of non-toxicity, such as ANSI or NSF Standard certification or EPA studies;
  - (C) the general procedures for the disinfection and emplacement, including the amount of product to be used per unit volume of the well;
  - (D) a demonstration that, after disinfection is completed, the water within the well will meet 15A NCAC 02L groundwater standards; and
  - (E) any other information requested by the Department to ensure compliance with G.S. 87-84.

*History Note:* Authority G.S. 87-87; 87-88;  
Eff. February 1, 1976;  
Amended Eff. September 1, 2009; April 1, 2001; December 1, 1992; July 1, 1988; September 1, 1984;  
Readopted Eff. September 1, 2019.