

CHAPTER III

PUBLIC WATER SUPPLY WELLS

COMMUNITY AND NON-TRANSIENT NON-COMMUNITY WATER SUPPLY WELLS

SECTION I REGISTRATION

- (A) The Owner of a Community water supply well and/or a Non-Transient Non-Community water supply well must register each Community water supply well and/or a Non-Transient Non-Community water supply well located in Mecklenburg County with the Department by completing the following information.
1. Names, addresses and phone numbers of the Community water supply well and/or a Non-Transient Non-Community water supply well Owner and/or legal agent of the property Owner.
 2. Address and tax parcel number of the property for the Community water supply well and/or a Non-Transient Non-Community water supply well.
 3. Name of the system and contact information
 4. Construction information (date installed, depth, casing depth, static water level, capacity)
 5. Number of connections and the number of people served
- (B) Applications for Community or Non-Transient Non-Community water supply well registration shall be submitted on forms to be supplied by the Department.
- (C) A non-refundable fee as specified in the fee schedule shall be submitted with each registration.
- (D) Wells drilled for public water supply systems regulated by the NC Department of Environment and Natural Resources, Division of Environmental Health shall meet the siting and all other requirements of that Division.

SECTION II ABANDONMENT OF COMMUNITY WATER SUPPLY WELL AND/OR A NON-TRANSIENT NON-COMMUNITY WATER SUPPLY WELLS

- (A) Temporarily Abandoned Community water supply well and/or a Non-Transient Non-Community Water Supply Wells
1. Temporarily abandoned Community water supply well and/or a Non-Transient Non-Community water supply wells shall be cased and grouted in accordance with these Regulations.
 2. Temporarily abandoned Community water supply well and/or a Non-Transient Non-Community water supply wells shall be sealed at the top of the casing with a watertight cap compatible with the casing and installed such that it cannot be removed easily by hand.
 3. Temporarily abandoned Community water supply well and/or a Non-Transient Non-Community water supply wells shall be maintained such that they are not a source or channel of contamination to groundwater.
 4. Temporarily abandoned Community water supply well and/or a Non-Transient Non-Community water supply wells shall be equipped with a cover or enclosure free of cracks and holes and is determined to be approved by the Director.
 5. The identification plate must be maintained as specified in Section IV (I) 3 of Chapter II.
 6. Temporarily abandoned Community water supply well and/or a Non-Transient Non-Community water supply wells shall be protected with a casing.
- (B) Permanently Abandoned Community water supply well and/or a Non-Transient Non-Community Water Supply Wells
1. The casing in any Community water supply well and/or a Non-Transient Non-Community water supply well to be permanently abandoned shall be grouted in accordance with these rules and regulations or removed.

2. The entire depth of the Community water supply well and/or a Non-Transient Non-Community water supply well shall be sounded before it is sealed to ensure freedom from obstructions that may interfere with sealing operations.
3. The Community water supply well and/or a Non-Transient Non-Community water supply well shall be thoroughly disinfected according to Section V(A) of Chapter II prior to sealing.
4. Procedures for permanent abandonment of Community water supply well and/or a Non-Transient Non-Community water supply wells, other than bored or hand dug Community water supply well and/or a Non-Transient Non-Community water supply wells.
 - a. Community water supply well and/or a Non-Transient Non-Community water supply wells constructed in consolidated rock formations or that penetrate zones of consolidated rock may be filled with cement grout, bentonite grout, sand, gravel or drill cuttings opposite the zones of consolidated rock. The top of the sand, gravel or cutting fill shall be at least ten feet below the bottom of the casing. The remainder of the Community water supply well and/or a Non-Transient Non-Community water supply well shall be filled with cement grout or bentonite grout only. For any Community water supply well and/or a Non-Transient Non-Community water supply well in which the depth of casing or the depth to the bedrock is not known or cannot be confirmed, the entire depth of the Community water supply well and/or a Non-Transient Non-Community water supply well shall be filled with cement grout or bentonite grout up to land surface.
 - b. Community water supply well and/or a Non-Transient Non-Community water supply wells constructed in unconsolidated rock formations other than bored or hand dug shall be completely filled with neat cement grout or bentonite grout by introducing it through a pipe extending to the bottom of the Community water supply well and/or a Non-Transient Non-Community water supply well which can be raised as the Community water supply well and/or a Non-Transient Non-Community water supply well is filled.
 - c. Gravel packed Community water supply well and/or a Non-Transient Non-Community water supply wells in which the casing and screen have not been removed shall be abandoned by injecting neat cement grout or bentonite grout into the Community water supply well and/or a Non-

Transient Non-Community water supply well filling it from the bottom of the casing to the top.

5. Procedures for permanent abandonment of bored Community water supply well and/or a Non-Transient Non-Community water supply wells or cased hand dug Community water supply well and/or a Non-Transient Non-Community water supply wells constructed into unconsolidated material.
 - a. Remove all plumbing or piping into the Community water supply well and/or a Non-Transient Non-Community water supply well, along with any obstructions inside the Community water supply well and/or a Non-Transient Non-Community water supply well.
 - b. Remove as much of the well tile casing as possible, but no less than to a depth of three (3) feet below land surface;
 - c. Remove all soil or other subsurface material present down to the top of the remaining well casing, and extending to a width of at least twelve (12) inches outside of the well casing on all sides
 - d. Fill the Community water supply well and/or a Non-Transient Non-Community water supply well up to the top of the remaining casing with cement grout, concrete grout, or bentonite grout.
 - e. Pour a one (1) foot thick concrete grout or cement grout plug that fills the entire excavated area above the top of the casing, including the area extending on all sides of the casing out to a width of at least twelve (12) inches on all sides.
 - f. Complete the abandonment process by filling the remainder of the well above the concrete or cement plug with additional concrete grout, cement grout, or soil.
6. Procedures for permanent abandonment of uncased hand dug Community water supply well and/or a Non-Transient Non-Community water supply wells constructed into unconsolidated material.
 - a. Remove all plumbing or piping into the well, along with any obstructions inside the well.

- b. Remove all soil or other subsurface material present down to a depth of three (3) feet below land surface and extending to a width of at least twelve (12) inches outside of the well diameter on all sides.
 - c. Fill the Community water supply well and/or a Non-Transient Non-Community water supply well up to the top of the original diameter with cement grout, concrete grout, bentonite grout, or dry clay compacted in place.
 - d. Pour a one (1) foot thick concrete grout or cement grout plug that fills the entire excavated area above the top of the original diameter, including the area extending on all sides of the original diameter out to a width of at least twelve (12) inches on all sides.
 - e. Complete the abandonment process by filling the remainder of the Community water supply well and/or a Non-Transient Non-Community water supply well above the concrete or cement plug with additional concrete grout, cement grout, or soil.
7. Procedures for permanent abandonment of contaminated Community water supply well and/or a Non-Transient Non-Community water supply wells.
- a. All casing and screen materials may be removed prior to initiation of abandonment procedures if such removal will not cause or contribute to contamination of the groundwater. Any casing not grouted in accordance with 15A NCAC 2C .0107(e) shall be removed or properly grouted.
 - b. The entire depth of the Community water supply well and/or a Non-Transient Non-Community water supply well shall be sounded before it is sealed to ensure freedom from obstructions that may interfere with sealing operations.
 - c. In the case of gravel-packed Community water supply well and/or a Non-Transient Non-Community water supply wells in which the casing and screens have not been removed, neat-cement, or bentonite grout shall be injected into the Community water supply well and/or a Non-Transient Non-Community water supply well completely filling it from the bottom of the casing to the top.
 - d. Community water supply well and/or a Non-Transient Non-Community water supply wells constructed in unconsolidated formations shall be completely filled with cement grout, or bentonite grout by introducing it

through a pipe extending to the bottom of the Community water supply well and/or a Non-Transient Non-Community water supply well which can be raised as the well is filled.

- e. Community water supply well and/or a Non-Transient Non-Community water supply wells constructed in consolidated rock formations or that penetrate zones of consolidated rock shall be filled with cement grout or bentonite grout by introducing it through a pipe extending to the bottom of the well which can be raised as the well is filled. The top of the cement grout or bentonite grout shall extend up to land surface.

- (C) The Owner shall be responsible for permanent abandonment of a Community water supply well and/or a Non-Transient Non-Community water supply well except that:
 - 1. The well contractor is responsible for well abandonment if abandonment is required because the well contractor improperly locates, construct, repairs or completes the well. The well contractor shall permanently abandon any Community water supply well and/or a Non-Transient Non-Community water supply well in which the casing has not been installed or from which the casing has been removed prior to removing his equipment from the site.
 - 2. The pump installer is responsible for Community water supply well and/or a Non-Transient Non-Community water supply well abandonment if abandonment is required because of improper well pump installation, repair, or removal. A certified well contractor must abandon the well.
- (D) Any Community water supply well and/or a Non-Transient Non-Community water supply well not in compliance with the conditions for temporary abandonment shall be brought into compliance or permanently abandoned within thirty days of receipt of notice from the Director.
- (E) Any Community water supply well and/or a Non-Transient Non-Community water supply well whose construction would have a propensity to transfer contamination to the groundwater shall be repaired so that it will not act as a source or channel of contamination to the groundwater, or permanently abandoned within thirty days of receipt of notice from the Department.
- (F) Where a new Community water supply well and/or a Non-Transient Non-Community water supply well or public water supply is replacing an old Community water supply well and/or a Non-Transient Non-Community water supply well and the Owner wishes to continue using the old Community water

- supply well and/or a Non-Transient Non-Community water supply well for irrigation or other uses, the old Community water supply well and/or a Non-Transient Non-Community water supply well may not be connected to the primary Community water supply well and/or a Non-Transient Non-Community water supply system in any way and must conform with Section II (E) of this Chapter.
- (G) Where a new Community water supply well and/or a Non-Transient Non-Community water supply well is replacing an existing Community water supply well and/or a Non-Transient Non-Community water supply well in which contamination has been confirmed through analyses, the existing well shall be permanently abandoned within thirty days of receipt of notice from the Department.
 - (H) The Director shall have the right to enter any property for the purpose of determining whether or not there may be an improperly abandoned Community water supply well and/or a Non-Transient Non-Community water supply well on the property.
 - (I) The well contractor shall contact the Department to schedule an abandonment inspection before abandoning a Community water supply well and/or a Non-Transient Non-Community water supply well. Contact shall include the location, permit number and anticipated time for abandoning each Community water supply well and/or a Non-Transient Non-Community water supply well. The inspection shall be scheduled during regular Mecklenburg County work hours on regular work days according to the Well Regulation Notification Policy.

Authority G.S. 87-87; 87-88

Reference (15A NCAC 02C .0113)