

*****PLEASE REFER TO THE NORTH CAROLINA DEPARTMENT OF***
ENVIRONMENTAL AND NATURAL RESOURCES DIVISION OF WATER
QUALITY 2C SECTION .0100 WELL CONSTRUCTION STANDARDS WHEN
REFERENCING WAKE COUNTY'S REGULATIONS FOR FURTHER
CLARIFICATION.**

REGULATIONS GOVERNING, WELL CONSTRUCTION, AND GROUNDWATER PROTECTION IN WAKE COUNTY

ORIGINALLY ADOPTED APRIL 14, 1986

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AMENDED JANUARY 1, 1998

REWRITTEN AND READOPTED JULY 24, 2003

**WAKE COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES
RALEIGH, NORTH CAROLINA**

**REGULATIONS GOVERNING WELL CONSTRUCTION, AND
GROUNDWATER PROTECTION IN WAKE COUNTY**

WHEREAS, THE WAKE COUNTY BOARD OF HUMAN SERVICES HAS THE RESPONSIBILITY TO PROTECT AND PROMOTE THE PUBLIC'S HEALTH;
AND

WHEREAS, THE NORTH CAROLINA COMMISSION FOR HEALTH SERVICES' REGULATIONS APPLY ONLY TO COMMUNITY WATER SUPPLIES AND PRIVATE WELLS FURNISHING WATER TO ESTABLISHMENTS UNDER FOOD, LODGING, INSTITUTIONAL, NURSING HOMES, DAY CARE FACILITIES, ETC. REGULATED BY STATE INSPECTIONAL PROGRAM; AND

WHEREAS, THE WAKE COUNTY BOARD OF HUMAN SERVICES IS OF THE OPINION THAT LOCAL CONDITIONS WHICH EXIST IN WAKE COUNTY JUSTIFY IMPOSING MORE STRINGENT MINIMUM STANDARDS IN CERTAIN INSTANCES IN ORDER TO REASONABLY INSURE THAT PRIVATE AND SEMI-PUBLIC WELL WATER SUPPLIES ARE SAFE AND ADEQUATE FOR DOMESTIC USE; AND

WHEREAS, THE WAKE COUNTY BOARD OF HUMAN SERVICES RECOGNIZES THE IMPORTANCE OF ADOPTING RULES AND REGULATIONS (NOT INCONSISTENT WITH LAWS AND RULES PROMULGATED BY THE GENERAL ASSEMBLY, THE COMMISSION FOR HEALTH SERVICES OR THE ENVIRONMENTAL MANAGEMENT COMMISSION) AS ARE NECESSARY TO PROTECT AND PROMOTE THE PUBLIC HEALTH OF THE CITIZENS OF WAKE COUNTY.

NOW, THEREFORE, BE IT RESOLVED THAT THE FOLLOWING REGULATIONS ARE ADOPTED BY THE WAKE COUNTY BOARD OF HUMAN SERVICES PURSUANT TO AUTHORITY CONTAINED IN CHAPTER 130A, ARTICLE 2, SECTIONS 39(b) AND 43 (b) AND SHALL APPLY TO PRIVATE AND SEMI-PUBLIC WELL WATER SUPPLIES AS DEFINED IN THE REGULATIONS. SPECIFIC RULES OF THE COMMISSION FOR HEALTH SERVICES AND THE ENVIRONMENTAL MANAGEMENT COMMISSION INCORPORATED IN THESE REGULATIONS ARE ADOPTED BY REFERENCE AND SHALL BECOME AN INTEGRAL PART OF THE REGULATIONS.

BE IT FURTHER RESOLVED, THAT ON THE DATE OF ADOPTION, THE WAKE COUNTY BOARD OF HUMAN SERVICES DIRECTS WAKE COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES TO DEVELOP NECESSARY PROCEDURES FOR ENFORCING THE PROVISIONS OF THE REGULATIONS AND INITIATE THESE PROCEDURES ON THE EFFECTIVE DATE.

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SECTION 101. GENERAL PROVISIONS

(a) AUTHORIZATION. The Wake County Board of Human Services is authorized under the provisions of Chapter 130A-39 and 43 of the General Statutes of North Carolina to adopt appropriate rules and regulations for the protection of the public health.

(b) PURPOSE. It is the finding of the Wake County Board of Human Services that the entire geographical area of Wake County is vulnerable to groundwater pollution from improperly located, constructed, operated, altered, or abandoned water supply and other wells. Therefore, in order to insure reasonable protection of the groundwater resources and consistent with the responsibility to protect and advance the public health, it is declared to be the policy of the Wake County Board of Human Services to require that the location, construction, repair and abandonment of water supply wells conform to such reasonable standards and requirements as may be necessary to protect the public health and groundwater resources.

(c) SCOPE. The provisions set forth herein shall apply to private well water and semi-public water supplies as defined in Section 102, (DEFINITIONS).

Wells drilled for private water supplies as defined in Section 102, (DEFINITIONS) shall also meet the applicable provisions of the North Carolina Administrative Code, Title 15A, Subchapter 2C, "Well Construction Standards", of the Department of Environment and Natural Resources, Division of Water Quality, Groundwater Section.

Wells drilled for semi-public water supplies as defined in Section 102, (DEFINITIONS) shall also meet the applicable provisions of the North Carolina Administrative Code Title 15A, Subchapter 18C, "Rules Governing Public Water Systems", of the Department of Environment and Natural Resources, Division of Environmental Health.

(d) CONFLICT WITH OTHER LAWS AND REGULATIONS. The provisions of any federal, state, or municipal law or regulation establishing standards affording greater protection to the public welfare, safety, health and the groundwater resources shall prevail within the jurisdiction of such agency or municipality over standards established by these regulations.

(e) INSPECTION. Before being used to supply water for human consumption, all newly constructed wells shall be inspected for compliance with the requirements of this ordinance and tested for yield and capacity as outlined in Section 110 (WELL TESTS FOR YIELD AND CAPACITY). {A well for public water supply shall be inspected and approved by an authorized representative of the North

Carolina Division of Environmental Health.} The Department reserves the right to inspect any repairs to a well that necessitate breaking the well's seal before use. (Also see Section 112, Well Maintenance: Repair: Groundwater Resources) The Department shall make these inspections as soon as practicable after receiving notice that an installation or repair has been made. Emergency repairs that are made outside normal working hours of the Department, i.e., nights, weekends, and holidays, shall not require a permit but shall be inspected on the next regular working day or as soon as practicable thereafter. Provided, however, that the requirements of Section 101 (e) do not apply to an individual homeowner making necessary repairs to his existing well.

(f) **RESPONSIBILITIES OF WATER SUPPLY OWNERS** It shall be unlawful for any person or firm to rent or offer to rent, lease or offer for lease, any residence or place of business which does not have a potable water supply. The owner, when required by the Department, shall provide proof that the water supply meets the water quality standards of these regulations.

SECTION 102 DEFINITIONS.

The definitions contained in 15A NCAC 02C .0102 are included as if fully set forth herein, which are hereby incorporated by reference including any subsequent amendments and editions. The following definitions are included to supplement the definitions in 15A NCAC 02C .0102:

ABANDONED WELL means a well whose use or construction has been discontinued, or which is in such a state of disrepair that continued use for obtaining groundwater or other useful purpose is impracticable.

Temporarily abandoned well means any useable well whose use has been temporarily discontinued because of well or pump maintenance problems.

Permanently abandoned well means any well whose use is impracticable because of faulty construction, location, water quality, insufficient yield, unserviceable casing and screen; or which has been removed from service because it no longer serves its intended use.

ADDITION means any structure, that is constructed, altered or placed on property that contains one or more wells. This would not include replacement of existing equipment within the existing footprint of a structure and addresses only those situations for which a building permit is required.

BOARD OF HUMAN SERVICES means the Wake County Board of Human Services or successor entity.

COMPLIANCE SAMPLE means a sample collected by an authorized representative of the Department for the purpose of detecting constituents that may threaten human health.

DEPARTMENT means the Wake County Department of Environmental Services, or its successor.

DIRECTOR means the Director of the Wake County Department of Environmental Services, or successor.

ENVIRONMENTAL SERVICES REPRESENTATIVE means an authorized agent of the Wake County Department of Environmental Services.

IRRIGATION WELL means an excavation that is cored, bored, drilled, jetted, dug or otherwise constructed for the purpose of withdrawing groundwater to be used for irrigation only and will not be connected to a potable water supply.

PERMIT means a written permit issued by the Wake County Department of Environmental Services authorizing or allowing the construction or repair of any well as defined in this ordinance.

PRIVATE WELL WATER SUPPLY means any well water supply furnishing potable water to an individual residence, to a multi-family dwelling that does not otherwise meet the criteria for a semi-public supply, a public water system, or to a business having less than 25 employees.

PUBLIC WATER SYSTEM OR COMMUNITY WATER SYSTEM means a water system as defined in 15A NCAC 18C.0102 (Rules Governing Public Water Supplies)

PUMPS AND PUMPING EQUIPMENT means the pump, the well seal and any other equipment or materials used or intended to be used for withdrawing or obtaining groundwater.

PUMP INSTALLER means any person, firm or corporation engaged in pump installation and repair.

REPAIR means work involved in deepening or changing depths, reaming, sealing, installing, perforating, screening or cleaning, acidizing or redeveloping a well excavation or any other work which results in breaking or opening the well seal.

SEMI-PUBLIC SUPPLY means a water supply that serves water for the purpose of human consumption to three to fourteen (3-14) service connections or less than 25 year-round residents and that does not meet the definitions for a public water system, or a private well water supply.

WATER SUPPLY means any source of groundwater.

WATER SUPPLY SYSTEM means pump and pipe used in connection with or pertaining to the operation of a water well including pumps, distribution service piping, pressure tanks and fittings.

WELL CONSTRUCTION includes all acts necessary to construct wells for any intended use, including the location and excavation of the well, placement of casings, grouting, screens, and fittings, development and testing.

WELL CONTRACTOR ACTIVITY means any activity for which a permit is required.

WELL CONTRACTOR means any person, firm or corporation engaged in well contractor activities.

WELL SEAL means an approved arrangement or device used to cap a well or to establish and maintain a junction between the casing or curbing of a well and the piping or equipment installed therein, the purpose or function of which is to prevent pollutants from entering the well at the upper terminal.

SECTION 103 REGISTRATION

The provisions of 15A NCAC 02C.0103 are hereby replaced with the following requirements.

(a) WELL CONTRACTOR REGISTRATION

(1) All persons, firms or corporations engaging in well contractor activities involving wells for irrigation, private or semi-public domestic use in Wake County shall register annually with the Department.

(2) Registration renewal shall be accomplished during the period of January 1 to January 31 of each year. The applicant shall submit the minimum following information:

- Name
- Name of Business
- Address
- Telephone numbers
- Names of certified well contractors employed

(3) Registration shall be accomplished by completing and submitting to the Department a registration application form provided by the Department for this purpose. Upon acceptance by the Department of a

properly completed application form and the posting of an approved performance bond, the applicant will be registered.

(4) All persons, firms, or corporations to be registered as a well contractor in Wake County must operate or be certified in accordance with 15A NCAC 27, Well Contractor Certification Rules, Sections .0100- .0900 (Criteria and Standards Applicable to Well Contractor Certification)

(5) All persons, firms, corporations or other business entities registering as a well contractor shall either deposit ten thousand (\$10,000) dollars with the Wake County Finance Department or post a continuing and automatically renewing original performance bond in the sum of ten thousand (\$10,000) dollars with the Department as beneficiary. If a performance bond is offered to meet the registration set forth herein, it shall be considered accepted by Wake County only upon approval by the Department or by the Wake County Attorney's office. The deposit of money or the delivery of a performance bond pursuant to this section constitutes agreement by the well contractor that the money deposit or the performance bond may be drawn on by Wake County at any time to remedy work performed by the well contractor which is inconsistent with these regulations. Examples of inconsistent work include but are not limited to improperly located, constructed, developed or abandoned wells that have not been corrected by the well contractor after notice from the Department. The money or bond may also be used to reimburse Wake County for inspection fees incurred by the well contractor.

(6) Any person or firm who drills or constructs geothermal heat exchange injection wells is required to be registered with the Department, and shall be certified for those installations by the International Ground Source Heat Pump Association or its equivalent.

(b) PUMP INSTALLER REGISTRATION

(1) All persons, firms or corporations engaged in the business of installing, replacing or repairing pumps or other equipment in wells in Wake County shall register annually with the Department. In order to register in Wake County, a pump installer must be registered with the North Carolina Department of Environment and Natural Resources, Division of Water Quality, Ground Water Section as a pump installer.

(2) Registration shall be accomplished during the period from January 1 to January 31 of each year by completing and submitting to the Department a registration application form provided by the Department for this purpose. Upon submitting a properly completed application form, the applicant will be registered.

The applicant shall submit the following minimum information:

- Name
- Name of Business
- Address
- Telephone numbers
- Names of employees installing pumps

(c) **WATER SAMPLER REGISTRATION**

(1) Every person, firm or corporation collecting confirmation samples shall register annually with the Department. Samplers will be limited to representatives of the Department, authorized representatives of a certified laboratory, registered sanitarians, certified well operators or others as approved by the Department.

(2) Registration shall be accomplished during the period from January 1 to January 31 of each year by completing and submitting to the Department a registration application form provided by the Department for this purpose. Upon submitting a properly completed application form, the applicant will be registered. The applicant shall submit the following minimum information:

- Name
- Name of Business
- Address
- Telephone numbers
- Names of employees collecting samples

SECTION 104 RESERVED

SECTION 105 PERMITS

The provisions of 15A NCAC 02C.0105 are not applicable in Wake County and are hereby replaced with the following requirements:

(a) **APPLICATION FOR PERMIT**

A complete application shall be submitted to the Department by a property owner or authorized agent who intends to construct, repair, alter or abandon a private well, semi-public water supply well, or irrigation well. The Department shall provide an application form to provide information needed to process the request as outlined in 15A NCAC 02C .0105 and other information as deemed necessary by the Department.

(b) No person, owner or agent, shall commence the construction, repair, alteration or abandonment of a well without first obtaining a permit from the

Department. The permit shall be obtained by the property owner or authorized agent prior to the construction, repair alteration or abandonment of any well for which a permit is required.

(1) Prior to construction, the location of the well must be approved by the Department.

(2) The well contractor shall maintain a copy of the permit on the job site at all times during the construction, repair or abandonment of the well. The well contractor shall be responsible for assuring all required setbacks and separations are met.

(3) The well contractor, owner or agent shall not commence any well construction within fifty (50) feet of a utility easement without the easement and utility clearly located and marked by the utility owner. The well contractor, owner or agent must contact North Carolina One Call Center, Inc., to have the easement and utility clearly located and marked.

(4) No person shall allow permanent electrical service to a residence, place of business or place of public assembly upon construction, location or relocation until the official electrical inspector with jurisdiction as provided in General Statutes (GS) 143-143.2 certifies to the electrical supplier that the required well system Certification of Completion has been obtained. Replacement wells are exempt from the above provision. Replacement wells must meet all other provisions of these regulations.

(5) The Department may suspend or revoke any permits issued upon a determination that the provisions of these regulations have been violated.

(6) No residence, place of business or place of public assembly shall be occupied, nor shall any newly constructed well defined in these regulations be placed into use until the Department has determined by inspection and required testing that:

- The well is in compliance with these regulations;
- All conditions prescribed by the well permit have been met and
- All water quality standards have been met.

It shall be the duty of the builder or the homeowner, as applicable, to provide assistance when necessary for the completion of these requirements.

(7) Unless otherwise specified in writing by the Department, permits shall become invalid and the fee forfeited after sixty (60) months from the date of issue if the construction has not been completed during that time period. When a permit has become invalid, the installation shall not be commenced or completed until a new permit has been obtained and a new fee is paid.

(8) The Department of Environmental Services must be notified prior to well construction if any of the following occur:

- The separation criteria specified in Section 107 cannot be met.
- The residence or business is relocated other than originally intended.
- The use of the building is changed from the use originally permitted.
- There is a need to install the septic system in an area other than indicated on the permit.
- Landscaping changes have been made that affect site drainage.
- There are current or pending restrictions regarding groundwater use
- The water source for any well intended for domestic use is adjacent to any water-bearing zone suspected or known to be contaminated.

(c) When permits are issued by other agencies for any type of well not covered by these regulations, a copy of that permit must be filed with the Department within 30 days from the date of issuance.

SECTION 106 RESERVED

SECTION 107. STANDARDS OF CONSTRUCTION: WATER SUPPLY WELLS

The provisions contained in 15A NCAC 02C .0107 STANDARDS OF CONSTRUCTION: WATER-SUPPLY WELLS are included as if fully set forth herein, which are hereby incorporated by reference including any subsequent amendments and editions. The following provisions are included to supplement the provisions in 15A NCAC 02C .0107:

(a) Location:

In paragraph (a)(1), modify by adding at the beginning of the sentence: Prior to any construction and/or use, a representative of the Wake County Department of Environmental Services must approve the site and location for new and existing private or semi-public well water supply.

In paragraph (a)(2) Modify:

(M) Building foundations, excluding the foundation of a structure housing the wellhead, the setback shall be: 50 feet instead of 25 feet.

In paragraph (a)(2) add:

- (S) Cemeteries. 50 feet
- (T) Property boundaries. 10 feet.
- (U) Other wells. 50 feet.

In paragraph (a)(3) add:

(E) Building Foundations. 25 feet.

(d) Casing:

In paragraph (d)(1)(A) modify to read as follows: The casing shall be new, seamless or electric-resistance welded galvanized or stainless steel pipe. The use of black steel casing pipe is disallowed. Galvanizing shall be done in accordance with requirements of ASTM A-120.

In paragraph (d)(2)(C) modify to read as follows: Casing shall have a minimum wall thickness and tolerance that meets or exceeds requirements for SDR-21 thermoplastic water well casing pipe for wells up to one hundred eighty-five (185) feet. Galvanized or stainless steel well casing as specified in (d)(1)(A) of this section shall be required for the entire length of the casing for any well in which the casing depth exceeds one hundred eighty-five (185) feet unless prior approval is granted by the Director of Environmental Services.

Paragraphs (d)(4)(A) and (B) are not applicable to these rules.

(e) Grouting:

Paragraphs (e)(1)(A) and (B) do not apply in Wake County.

In paragraph (e)(2)(B), modify to read as follows: The annular space around the casing shall be filled with a cement type grout to a depth of at least twenty (20) feet.

Add as (e)(2)(C): The annular space around the casing below the grout of a bored well shall be filled with clean sand or gravel.

Add as (e)(2)(D): For large diameter bored wells, it shall be the responsibility of the well contractor, at the time of grouting, to pour a concrete collar or slab with a thickness of at least four (4) inches and extending at least two (2) feet outward from outer well casing.

Add as (e)(2)(E): The top of the slab shall be at least two inches above land surface and shall slope away from the well casing in all directions.

Add as (e) (2) (F): If the supply line is to be routed through the slab, a ninety (90) degree, elbowed conduit sleeve, with a minimum diameter of two (2) inches, shall be installed when the slab is poured

Add as (e) (10): The Department may inspect the grout and annulus before the grout is placed around the casing and observe as the grout is placed around the casing. The well contractor shall strictly comply with the grout inspections scheduling policy of the Department.

(g) Gravel and sand packed wells:

In paragraph (g) Gravel and sand packed wells shall not be used unless given prior approval by the Director of Environmental Services. In those cases, the provisions of 15A NCAC 02C .0107(g) apply.

(i) Well head completion:

Modify by adding the following: Add paragraph (i)(3)(E) The identification plate, if removed or obscured during pump installation, height adjustment or replacement, shall be relocated and securely attached to the well casing by the pump installer.

Add paragraph (i)(7): Completed wellhead installations must be reported to the Department within seventy-two (72) hours of completion.

SECTION 108. RESERVED

SECTION 109. PUMPS AND PUMPING EQUIPMENT

The provisions contained in 15A NCAC 02C .0109 PUMPS AND PUMPING EQUIPMENT are included as if fully set forth herein, which are hereby incorporated by reference including any subsequent amendments and editions. The following provisions are included to supplement the provisions in 15A NCAC 02C .0109:

Modify (f) to read as follows: The person installing the pump shall install a hose bibb at the wellhead for the purpose of obtaining water samples. The hose bibb must be located in the piping, turned downward and positioned such that a water sample can be easily obtained without interference from any part of the wellhead.

SECTION 110. WELL TESTS FOR YIELD AND CAPACITY

The provisions contained in 15A NCAC 02C .0110 WELL TESTS FOR YIELD are included as if fully set forth herein, which are hereby incorporated by

reference including any subsequent amendments and editions. The following provisions are included to supplement the provisions in 15A NCAC 02C .0110:

Modify (a) to read as follows:

- (a) Every water supply well, including semi-public wells shall be tested for capacity by a method and for a period of time as specified in this Rule.

Modify (b) by adding:

Yield test results must be submitted to the Department within five (5) days after completion of the test(s).

Paragraph (d) does not apply in Wake County.

SECTION 111. DISINFECTION OF WATER SUPPLIES, SAMPLING AND WATER QUALITY STANDARDS

The provisions contained in 15A NCAC 02C .0111 DISINFECTION OF WATER SUPPLY WELLS are included as if fully set forth herein, which are hereby incorporated by reference including any subsequent amendments and editions. The following provisions are included to supplement the provisions in 15A NCAC 02C .0111:

Modify paragraph (2) as follows: Other materials and methods of disinfection at least as effective as those in item 15A NCAC .02C .0111 (1) (Chlorination) may be used upon prior approval by the Department.

Add as paragraph (3): continuous disinfection

Water supply wells, which repeatedly fail to test, absent for coliform bacteria and upon inspection are constructed properly shall be equipped with a continuous disinfection device that meets the conditions listed below:

- (a) Ultraviolet Disinfecting Units must be constructed and installed to meet or exceed National Sanitation Foundation Standard 55 class A.
- (b) Chlorinator- Continuous chlorination systems must provide continuous chlorination with a minimum chlorine residual of 0.2 mg/l and a chlorine contact time of at least twenty (20) minutes.
- (c) Other materials and methods of disinfection may be used upon prior approval by the Department.

Add as paragraph (4) compliance sampling

Add paragraph (4)(a): All newly constructed wells shall meet the water quality standards in this section before final approval by the Department. A compliance sample, testing absent for coliform bacteria, and below exceedance levels of Groundwater Quality Standards for the State of North Carolina for target constituents determined by the Department, shall

serve as confirmation that a well water supply complies with the water quality standards of this section.

Add paragraph (4)(b): For all new private or semi-public well water supplies, a compliance sample shall be collected not less than 24 hours after the chlorine or other disinfecting agent has been purged from the well and water supply system. Compliance samples will not be collected from:

- i. Water supply systems that contain residual chlorine
- ii. New systems that have not been properly chlorinated.
- iii. Wells that appear to be improperly protected or constructed.
- iv. Incomplete systems, i.e., wells without a functioning pump or completed well. It is the responsibility of the well owner to provide a source of power for the purpose of collecting the compliance sample.

Add paragraph (4)(c): Compliance samples will be collected only by persons approved per Section 103 (c) (WATER SAMPLER REGISTRATION) of these regulations. A chain of custody will be maintained between the person authorized to collect the compliance sample and the certified laboratory.

Add paragraph (4)(d): Compliance samples must be analyzed in the North Carolina State Laboratory of Public Health, the Wake County Department of Human Services Laboratory or in a contract laboratory certified by the Certification Unit of the Division of Public Health.

Add paragraph (4)(e): Testing Protocol – For all new private or semi-public well water supplies, a compliance sample shall follow the protocol in Section 111 (5) (SAMPLING CONSTITUENTS) to determine compliance with maximum contaminant levels specified by the North Carolina Department of Environment and Natural Resources, Division of Water Quality, Groundwater Section rule: 15A NCAC 02L .0202 or as recommended by the North Carolina Occupational and Epidemiology Branch of the North Carolina Department of Health and Human Services.

Add paragraph (5) sampling constituents

Add paragraph (5) (a): Bacteria: For all new private or semi-public well water supplies, a compliance sample for Total and Fecal Coliform bacteria shall be collected not less than 24 hours after the chlorine or other disinfecting agent has been purged from the well and water supply system.

Add paragraph (5) (b): Inorganic Parameters: Inorganic parameters testing will be conducted on all private and semi-private drinking water supplies

and will include as a minimum: Acidity, Silver, Arsenic, Barium, Calcium, Cadmium, Chloride, Chromium, Copper, Fluoride, Iron, Hardness, Mercury, Magnesium, Manganese, Sodium, Lead, pH, Selenium, and Zinc.

Add paragraph (5) (c): Nitrates/Nitrites: Nitrates and/or Nitrites testing will be conducted on all private and semi-private drinking water supplies

Add paragraph (5) (d): Volatile and Semi-volatile Organic Compounds including Chlorinated Organic Compounds: These compounds will be tested for private and semi-private drinking water supplies based on the following criteria.

- (a) Sampling based on a statistical population of all new wells installed.
- (b) Sampling based on the proximity of the well to existing and former underground storage tanks (UST).
- (c) Sampling based on the possibility that the well is located within twenty-five (25) feet of a building foundation that has at any time been treated with pesticides, herbicides or other lawn chemicals.
- (d) Sampling based on current or previous land use where industrial, land disposal or historical agriculture practices occurred.

SECTION 112. WELL MAINTENANCE AND REPAIR.

The provisions contained in 15A NCAC 02C .0112 WELL MAINTENANCE: REPAIR: GROUNDWATER RESOURCES are included as if fully set forth herein, which are hereby incorporated by reference including any subsequent amendments and editions. The following provisions are included to supplement the provisions in 15A NCAC 02C .0112:

Add paragraph (e) The Department may inspect any well by video before repairs are made. The Department of Environmental Services may inspect the liner and packer materials before they are installed, as they are installed in the well and/or after they are installed.

Add paragraph (f) Discharges from any well shall not create a nuisance or hazard to the environment or public.

SECTION 113. ABANDONMENT OF WELLS.

The provisions contained in 15A NCAC 02C .0113 ABANDONMENT OF WELLS are included as if fully set forth herein, which are hereby incorporated by reference including any subsequent amendments and editions. The following provisions are included to supplement the provisions in 15A NCAC 02C .0113:

Modify paragraph (c) as follows: Any well which acts as a source or channel of contamination shall be repaired or permanently abandoned within 30 days of receipt of notice from the Environmental Services Department or within thirty (30) days of commencement of the construction.

Add paragraph (f): The person or firm abandoning any well will provide a minimum twenty-four (24) hour notice to the Department prior to the commencement of permanent abandonment procedures.

SECTION 114. DATA AND RECORDS REQUIRED

The provisions of 15A NCAC 02C .0114, which are hereby incorporated by reference including any subsequent amendments and editions with the following changes:

The provisions of 15A NCAC 02C .0114 (a) are not applicable to these rules.

Modify paragraph (b) as follows:(1) Any person completing or abandoning any well in Wake County shall submit to the Department and to the well owner a record of the construction or abandonment which includes the owner's name, the well's location, diameter and depth, casing depth, the method of finishing or abandoning, static water level, pumping water level, yield, pump type, capacity and setting, and date of completion or abandonment.

(2) Any person repairing a well shall submit to the Department and the well owner a record of the repair to include the owner's name, location of the well, change in construction and materials replaced, and date of repair with the exceptions noted in Section 101-E.

(3) The reports required in Sections (a) and (b) above shall be submitted to the Department within five (5) working days after completing construction, abandonment or repair.

(4) Reports shall be certified by the contractor or other person completing the construction, abandonment or repair.

SECTIONS 115, 116 AND 117 ARE RESERVED

SECTION 119 RESERVED

SECTION 203. SEMI-PUBLIC WELL WATER SUPPLIES

Every new well constructed for use as a semi-public well water supply shall meet the provisions of Section 203 of Title 15A, Subchapter 18C of the N.C.

Administrative Code of the N.C. Division of Environmental Health, Public Water Supply Section which are hereby incorporated by reference including any subsequent amendments and editions.

SECTION 302. PLANS

Every new well constructed for use as a semi-public well water supply shall meet the provisions of Section 302 of Title 15A, Subchapter 18C of the N.C. Administrative Code of the N.C. Division of Environmental Health, Public Water Supply Section which are hereby incorporated by reference including any subsequent amendments and editions with the following changes:

- (a) Plans shall be submitted in triplicate to Department.

SECTION 303. SUBMISSIONS REQUIRED BY ENGINEER AND WATER SUPPLIER

Every new well constructed for use as a semi-public well water supply shall meet the provisions of Section 303 of Title 15A, Subchapter 18C of the N.C. Administrative Code of the N.C. Division of Environmental Health, Public Water Supply Section, which are hereby incorporated by reference including any subsequent amendments and editions with the following changes:

Revisions to plans shall be in accordance with paragraph 306 of these rules.

SECTION 305. APPROVAL OF PLANS NECESSARY BEFORE CONTRACTING OR CONSTRUCTING

Every new well constructed for use as a semi-public well water supply shall meet the provisions of Section 304 of Title 15A, Subchapter 18C of the N.C. Administrative Code of the N.C. Division of Environmental Health, Public Water Supply Section, which are hereby incorporated by reference including any subsequent amendments and editions with the following changes:

The Department will provide approvals for in lieu of the Department of Environment and Natural Resources, Division of Environmental Health as referenced in paragraphs (a) and (b), and

Paragraph (b) (2) does not apply

Paragraph (b) (3) does not apply

Paragraph (b) (5) does not apply

Paragraph (b) (6) does not apply

SECTION 306. CHANGES IN PLANS OR SPECIFICATIONS AFTER APPROVAL

Section 305 of Title 15A, Subchapter 18C of the N.C. Administrative Code of the N.C. Division of Environmental Health, Public Water Supply Section, for Changes in Plans or Specifications After Approval does not apply and is replaced with the following:

Deviations from the approved plans and specifications affecting capacity, hydraulic conditions, operating units, the functioning of water treatment processes, the quality of water to be delivered, or any provisos stipulated in Wake County's original and subsequent letters of approval must be approved by the Department prior to any construction installation. Revised plans and specifications shall be submitted in time to permit the review and approval of such plans or specifications before any construction work affected by such deviations is begun.

SECTION 402. WATER SUPPLY WELLS

Owners and operators of semi-public well water supplies are required to exercise proper due diligence when ascertaining the risk of potential groundwater contamination. Every new well constructed for use as a semi-public well water supply shall meet the provisions of Section 402 of Title 15A, Subchapter 18C of the N.C. Administrative Code of the N.C. Division of Environmental Health, Public Water Supply Section which are hereby incorporated by reference including any subsequent amendments and editions with the following changes:

Replace paragraph (a) as follows: The construction of water supply wells shall conform to well construction regulations and standards of these Rules.

Replace paragraph (h) as follows: Initial Disinfection of Water Supply Well. All new wells, and wells that have been repaired or reconditioned shall be cleaned of foreign sub substances such as soil, grease, and oil and then shall be disinfected. A representative sample or samples of water (free of chlorine) shall be collected by Wake County (or by a firm registered with Wake County for sample collection per these Rules) and sampled for bacteriological analysis in accordance with these Rules. After disinfection, the water supply shall not be placed into service until bacteriological tests of representative water samples analyzed in the North Carolina State Laboratory of Public Health, the Wake County Department of Human Services Laboratory or in a contract laboratory certified by the Certification Unit of the Division of Public Health.

Replace paragraph (i) as follows: Compliance Sample. A representative sample or samples of water shall be collected by Wake County and submitted for chemical analysis by Wake (or by a firm registered with Wake County for sample collection per Section 111 of these Rules) analyzed in the North Carolina State Laboratory of Public Health, the Wake County Department of Human Services Laboratory or in a contract laboratory certified by the Certification Unit of the Division of Public Health. The results of the analysis shall demonstrate the water is treatable to meet the water quality standards in Section 1500 of Title 15A, Subchapter 18C of the N.C. Administrative Code of the N.C. Division of Environmental Health and needed treatment shall be included before the well is placed into service.

SECTION 404. WATER TREATMENT FACILITIES

Every new well constructed for use as a semi-public well water supply shall meet the provisions of Section 404 of Title 15A, Subchapter 18C of the N.C. Administrative Code of the N.C. Division of Environmental Health, Public Water Supply Section which are hereby incorporated by reference including any subsequent amendments and editions with the following changes:

Modify paragraph (b) as follows: delete any references to surface water treatment.

Paragraphs (h), (i), (j) (k) are not applicable to these rules.

SECTION 405. STORAGE OF FINISHED WATER

The semi-public well water supply shall meet the provisions of Section 405 of Title 15A, Subchapter 18C of the N.C. Administrative Code of the N.C. Division of Environmental Health, Public Water Supply Section which are hereby incorporated by reference including any subsequent amendments and editions with the following changes:

Paragraphs (b) and (d) are not applicable to these rules.

SECTION 406. DISTRIBUTION SYSTEMS

The semi-public well water supply distribution systems shall meet the provisions of Section 406 of Title 15A, Subchapter 18C of the N.C. Administrative Code of the N.C. Division of Environmental Health, Public Water Supply Section which are hereby incorporated by reference including any subsequent amendments and editions.

SECTION 407. ELECTRICAL SYSTEMS

The semi-public well water supply electrical systems shall meet the provisions of Section 407 of Title 15A, Subchapter 18C of the N.C. Administrative Code of the

N.C. Division of Environmental Health, Public Water Supply Section which are hereby incorporated by reference including any subsequent amendments and editions.

SECTION 408. LEAD FREE CONSTRUCTION

The semi-public well water supply systems shall meet the provisions of Section 408 of Title 15A, Subchapter 18C of the N.C. Administrative Code of the N.C. Division of Environmental Health, Public Water Supply Section which are hereby incorporated by reference including any subsequent amendments and editions with the following changes:

Paragraph (d) is not applicable to these rules.

SECTION 1001. DISINFECTION OF NEW SYSTEMS

The semi-public well water supply systems shall meet the provisions of Section 1001 of Title 15A, Subchapter 18C of the N.C. Administrative Code of the N.C. Division of Environmental Health, Public Water Supply Section which are hereby incorporated by reference including any subsequent amendments and editions.

SECTION 1002. DISINFECTION OF WELLS

The semi-public well water supply systems shall meet the provisions of Section 1002 of Title 15A, Subchapter 18C of the N.C. Administrative Code of the N.C. Division of Environmental Health, Public Water Supply Section which are hereby incorporated by reference including any subsequent amendments and editions.

SECTION 1003. DISINFECTION OF STORAGE TANKS AND DISTRIBUTION SYSTEMS

The semi-public well water supply systems shall meet the provisions of Section 1003 of Title 15A, Subchapter 18C of the N.C. Administrative Code of the N.C. Division of Environmental Health, Public Water Supply Section which are hereby incorporated by reference including any subsequent amendments and editions.

SECTION 1301. OPERATOR REQUIRING DISINFECTION ONLY

The provisions contained in Section 1301 of Title 15A, Subchapter 18C of the N.C. Administrative Code of the N.C. Division of Environmental Health, Public Water Supply Section are replaced with the following provisions:

The semi-public well water supply systems shall require an operator in responsible charge. The operator must hold a valid certificate issued by the North Carolina Water Treatment Facility Operators Board of Certification. The operator in responsible charge of a semi-public system requiring disinfection

shall be capable of computing chlorine dosages that may be applied to the water. The operator shall be familiar with the entire water system, including pipelines, chlorinators, and other appurtenances pertaining to the operation of the entire system. The operator should be familiar with the North Carolina Water Treatment Facility Operators Certification requirements.

SECTION 1303. OPERATION OF SEMI-PUBLIC WATER SYSTEMS WELLS

The provisions contained in Section 1303 of Title 15A, Subchapter 18C of the N.C. Administrative Code of the N.C. Division of Environmental Health, Public Water Supply Section are replaced with the following provisions:

The semi-public well water supply systems shall require an operator in responsible charge. The operator in responsible charge of a semi-public community and non-transient, non-community water system well shall be capable of computing chlorine dosages that may be applied to the water. The operator shall be familiar with the entire water system, including pipelines, chlorinators, and other appurtenances pertaining to the operation of the entire system. The operator should be familiar with the North Carolina Water Treatment Facility Operators Certification requirements.

SECTION 1401. VARIANCES

The provisions contained in 15A NCAC 02C .0118 VARIANCE are included as if fully set forth herein, which are hereby incorporated by reference including any subsequent amendments and editions.

SECTION 1402. ENFORCEMENT AND PENALTIES

If any person violates any part of these regulations or willfully fails to perform any acts required by these regulations, he shall be guilty of a misdemeanor and shall be subject to sanctions as provided in N.C.G.S. 130A-25; additionally, he may have any permit or registration issued pursuant to these rules suspended or revoked. Such enforcement procedures shall be in addition to and not to the exclusion of any other civil enforcement mechanisms available under law.

SECTION 1403. INJUNCTIONS

If any person violates any of these regulations or if any person hinders or interferes with the proper performance of duty by the Environmental Services Representative, the Director may institute an action in the Superior Court of Wake County for injunctive relief as provided in N.C.G.S. 130A-18.

SECTION 1404. APPEAL PROCEDURE

Appeals concerning the interpretation and enforcement of these rules shall be conducted in accordance with the Wake County Environmental Services Rules of Appeal, and in compliance with N.C.G.S. 130A-24.

SECTION 1405 SEVERABILITY

If any provision or clause of these regulations or the application thereof shall be declared invalid by a court of competent jurisdiction, such declaration shall not invalidate any other provision, clause, or application of these regulations.

SECTION 1406. EFFECTIVE DATE

These rules and regulations adopted by the Wake County Board of Human Services on this the 14th day of April, 1986 and shall be in full force and effect from and after October 1, 1986.

Amendments were adopted on July 24, 2003 and shall become a part of these regulations and in full force and effect from and after September 1, 2003.

SIGNED: _____
Chairman, Wake County Board of Human Services:

SIGNED _____
Director, Wake County Department of Human Services

SIGNED _____
Director, Wake County Department of Environmental Services

SIGNED _____
Clerk, Wake County Board of Human Services

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