



BRIAN TAYLOR
STATE FIRE MARSHAL

October 18, 2024

VIA EMAIL ONLY

Mark Griffin
Building Code Enforcement Director
Union County
Union County Government
500 North Main Street, Suite 47
Monroe, NC 28112
mark.griffin@unioncountync.gov

RE: 2018 North Carolina Plumbing Code Section 602.2 and 2018 North Carolina Residential Code Section P2901.1 Potable water required.

Mr. Griffin:

This letter is in response to your request for formal interpretation to the Office of State Fire Marshal (OSFM) dated August 14, 2024, which OSFM received by email the same day.

Your letter states in relevant part:

"A large portion of Union County is located within the "Carolina Slate Belt," where arsenic, iron, and manganese deposits are naturally occurring. These deposits affect the quality, ultimately even the potability, of well water in rural areas of the County. Perhaps in every county, but especially in Union County, it is, therefore, of utmost importance to ensure these contaminants in ground water are treated before consumption via well water piped into new dwellings and commercial structures for human consumption.

The 2018 North Carolina State Building Code: Plumbing Code ("Plumbing Code"), Sections 202, 602.1, and 602.2, appears to require that the County ensure that well water is potable and safe to consume before a new dwelling or commercial structure is lawfully occupied. "Structures equipped with plumbing fixtures and utilized for human occupancy or habitation shall be provided with a potable supply of water. .. " Plumbing Code, Section 602.2. "Only potable water shall be supplied to plumbing fixtures that provide water for drinking ... " Plumbing Code, Section 602.1. We believe this conclusion is further supported by the 2018 North Carolina State Building Code: Administrative Code and Policies ("Administrative Code"), Section 204.8.4, which provides that a Certificate of Occupancy ("CO") cannot be issued until the structure is satisfactorily complete according to the applicable requirements of the State Building Code and cannot be safely occupied until there is a source of potable water. Accordingly, Union County has determined that it should no longer issue a CO for new dwellings or commercial structures served by a private drinking water well, until water quality testing is performed, and

OFFICE OF STATE FIRE MARSHAL



the results are evaluated and determined to be potable.

We reach this conclusion, however, in deference to the Department of Insurance. It is the Department's interpretation of the potable water requirements for structures subject to the North Carolina State Building Code that will ultimately govern our conclusion. If the Department wishes for the County to place a different interpretation and construction on the requirements of the Building Code, we invite the Department to make those requirements known, and we will defer to them.

Union County is seeking a formal interpretation of the North Carolina State Building Code in accordance with N.C. Gen. Stat. § 143-140 and the Administrative Code, Section 203.2.1.2. Included within this request, is an interpretation of the Plumbing Code, Sections 202, 602.1, and 602.2, and any other provisions deemed relevant by the Department, as they relate to issuing COs as described in Section 204.8.4 of the Administrative Code. These sections state as follows:

Section 202, General Definitions. Potable Water. Water free from impurities present in amounts sufficient to cause disease or harmful physiological effects and conforming to the bacteriological and chemical quality requirements of the Public Health Drinking Water Standards or the regulations of the public health authority having jurisdiction.

Section 602.1, General. Structures equipped with plumbing fixtures and utilized for human occupancy or habitation shall be provided with a potable supply of water in the amounts and at the pressures specified in this chapter.

Section 602.2, Potable Water required. Only potable water shall be supplied to plumbing fixtures that provide water for drinking, bathing or culinary purposes, or for the processing of food, medical or pharmaceutical products. Unless otherwise provided in this code, potable water shall be supplied to all plumbing fixtures.

Section 204.8.4, Issuing Certificate of Occupancy. Upon satisfactory completion of a building and after the final inspection, the inspection department may issue a certificate of occupancy. The certificate of occupancy shall state the occupancy may be safely occupied.

The Plumbing Code requires potable water be supplied to structures equipped with plumbing fixtures and utilized for human occupancy or habitation. See Plumbing Code, Section 602.1. Further, only potable water shall be supplied to plumbing fixtures that provide water for drinking, bathing or culinary purposes, or for the processing of food, medical or pharmaceutical products. See Plumbing Code, Section 602.2. Potable water as defined by the Plumbing Code requires water to be free from impurities present in sufficient amounts to cause harmful effects and to conform to the water quality requirements of the Public Health Service Drinking Water Standards or the regulations of the public health authority having jurisdiction. See Plumbing Code, Section 202. N.C. Gen. Stat. § 87-97 contains the regulations of the public health authority having jurisdiction in Union County. The statutorily mandated process for determining the potability of water appears to be by requiring the testing of private well water for contaminants in accordance with N.C. Gen. Stat. § 87-97(h). Without confirmation of water potability by water quality testing, we believe there cannot be full compliance with the Plumbing Code, and, therefore, the State Building Code.



Until there is full compliance with the State Building Code, a CO cannot be issued. See Administrative Code, Section 204.8.4 (requiring that only upon final passing of inspections, can a CO be issued, stating the structure can be safely occupied). This is because, by issuing the COs, a positive affirmation is made that the structure is in compliance with the State Building Code and any other applicable regulations. Therefore, our interpretation is that COs should not be issued, and should be withheld, until water quality testing is performed to confirm that water from the private drinking water well is potable.

Our request for a formal interpretation of the Plumbing Code, Sections 202, 602.1, and 602.2, in relation to the issuance of COs as stated Section 204.8.4 of the Administrative Code, is to provide clarity as to how the County should implement the State's policy objectives expressed in its Building Code. As the local public health authority attempting to implement these requirements, we want to ensure we are aligned with the State's requirements to effectuate what we believe is a requirement to withhold the issuance of a CO for new dwellings and commercial structures served by private drinking water wells until water quality testing can be performed and evaluated to confirm the well water is potable.”

Remarks:

Attachment A is comprised of the request for formal interpretation as well as all supporting information submitted with the request.

Code Analysis: Potable water is required for all plumbing fixtures unless non-potable water is approved for purposes indicated elsewhere in the North Carolina State Building Code. Within the North Carolina State Building Code, the quality requirements of the local health department define what is “potable water”. Private drinking water wells are regulated by North Carolina General Statutes (N.C.G.S.) Chapter 87, Article 7, North Carolina Well Construction Act. Permitting and testing of private drinking water wells is regulated by N.C.G.S. 87-97 and North Carolina Administrative Code (NCAC) 15A NCAC 18A Section .3800 – Private Drinking Water Well Sampling.

2018 North Carolina Plumbing Code, Section 602.2 Potable water required.

602.2 Potable water required. Only potable water shall be supplied to plumbing fixtures that provide water for drinking, bathing or culinary purposes, or for the processing of food, medical or pharmaceutical products. Unless otherwise provided in this code, potable water shall be supplied to all plumbing fixtures.

....

2018 North Carolina Residential Code, Section P2901.1 Potable water required.

P2901.1 Potable water required. Potable water shall be supplied to plumbing fixtures and plumbing *appliances* except where treated rainwater, treated gray water or municipal reclaimed water is supplied to water closets, urinals and trap primers. The requirements of this section shall not be construed to require signage for water closets and urinals.

....

2018 North Carolina Plumbing Code and 2018 North Carolina Residential Code, Chapter 2 Definitions



POTABLE WATER. Water free from impurities present in amounts sufficient to cause disease or harmful physiological effects and conforming to the bacteriological and chemical quality requirements of the Public Health Service Drinking Water Standards or the regulations of the public health authority having jurisdiction.

....

§ 87-97. Permitting and testing of private drinking water wells.

(a) **Mandatory Local Well Programs.** - Each county, through the local health department that serves the county, shall implement a private drinking water well permitting, inspection, and testing program. The local health department shall be the exclusive authority for the permitting of wells and well systems as described in G.S. 143-138(b17)(2). Local health departments shall administer the program and enforce the minimum well construction, permitting, inspection, repair, and testing requirements set out in this Article and rules adopted pursuant to this Article. No person shall unduly delay or refuse to permit a well that can be constructed or repaired and operated in compliance with the requirements set out in this Article and rules adopted pursuant to this Article.

(a1) **Use of Standard Forms.** - Local well programs shall use the standard forms created by the Department for all required submittals and shall not create their own forms.

(b) **Permit Required.** - Except for those wells required to be permitted by the Environmental Management Commission pursuant to G.S. 87-88, no person shall:

(1) **Construct or assist in the construction of a private drinking water well unless a construction permit has been obtained from the local health department.**

(2) **Repair or assist in the repair of a private drinking water well unless a repair permit has been obtained from the local health department, except that a permit shall not be required for the repair or replacement of a pump or tank.**

(b1) Repealed by Session Laws 2023-90, s. 9.5, effective July 10, 2023.

(b2) **Permit to Include Authorization for Piping and Electrical.** - A permit issued under this section shall also be deemed to include authorization for all of the following:

(1) The installation, construction, maintenance, or repair of electrical wiring, devices, appliances, or equipment by a person certified as a well contractor under Article 7A of this Chapter when running electrical wires from the well pump to the pressure switch.

(2) The installation, construction, maintenance, or repair of water pipes by a person certified as a well contractor under Article 7A of this Chapter when running water pipes from the well to the water tank.

(3) The installation of both water pipes and electrical wiring in a single ditch by a person certified as a well contractor under Article 7A of this Chapter when running electrical wires from the well pump to the pressure switch or other pressure sensing device and water pipes from the well to the water tank. The ditch shall be as deep as the minimum cover requirements for either electrical wiring or water pipes, whichever is greater. The ditch shall be covered by a person certified as a well contractor under Article 7A of this Chapter upon the completion of the activities conducted pursuant to this subsection.

This subsection shall not be interpreted to prohibit any person licensed by an independent occupational licensing board from performing any authorized services within the scope of practice of the person's license.



(c) Permit Not Required for Maintenance or Pump Repair or Replacement. - A repair permit shall not be required for any private drinking water well maintenance work that does not involve breaking or opening the well seal. A repair permit shall not be required for any private drinking water well repair work that involves only the repair or replacement of a pump or tank.

(d) Well Site Evaluation. - The local health department shall conduct a field investigation to evaluate the site on which a private drinking water well is proposed to be located before issuing a permit pursuant to this section. The field investigation shall determine whether there is any abandoned well located on the site, and if so, the construction permit shall be conditioned upon the proper closure of all abandoned wells located on the site in accordance with the requirements of this Article and rules adopted pursuant to this Article. If a private drinking water well is proposed to be located on a site on which a wastewater system subject to the requirements of Article 11 of Chapter 130A of the General Statutes is located or proposed to be located, the application for a construction permit shall be accompanied by a plat or site plan, as defined in G.S. 130A-334.

If the well location marked on the map submitted with an application to a local well program is also marked with a stake or similar marker on the property, then the local well program may not require the contractor to be on site during the on-site predrill inspection, as long as the contractor is available by telephone to answer questions.

(e) Issuance of Permit. - In accordance with G.S. 87-97.1 and G.S. 87-97.2, within 30 days of receipt of an application to construct or repair a well, a local health department shall make a determination whether the proposed private drinking water well can be constructed or repaired and operated in compliance with this Article and rules adopted pursuant to this Article and shall issue a permit or denial accordingly. If a local health department fails to act within 30 days, the permit shall automatically be issued, and the local health department may challenge issuance of the permit as provided in Chapter 150B of the General Statutes. The local health department may impose any conditions on the issuance of a construction permit or repair permit that it determines to be necessary to ensure compliance with this Article and rules adopted pursuant to this Article. Notwithstanding any other provision of law, no permit for a well that is in compliance with this Article and the rules adopted pursuant to this Article shall be denied on the basis of a local government policy that discourages or prohibits the drilling of new wells.

(e1) Notice for Wells at Contamination Sites. - The Commission shall adopt rules governing permits issued for private drinking water wells for circumstances in which the local health department has determined that the proposed site for a private drinking water well is located within 1,000 feet of a known source of release of contamination. Rules adopted pursuant to this subsection shall provide for notice and information of the known source of release of contamination and any known risk of issuing a permit for the construction and use of a private drinking water well on such a site.

(e2) Grouting Certification. - Notwithstanding any other provision of this Article, during the construction, repair, or abandonment of a private drinking water well, the local health department shall not conduct a grouting inspection if all of the following apply:

- (1) The well contractor provides written, verbal, or electronic notice of intent to grout to the local health department prior to 9:00 A.M. on the date of grouting.
- (2) The written, verbal, or electronic notice of intent to grout includes the location, permit number, and anticipated time for grouting and indicates that grouting may occur after normal business hours or on the weekend.
- (3) If the grouting is to occur on a State holiday, the written, verbal, or electronic notice of intent to grout is provided by the last business day prior to the State holiday.



(4) The well contractor provides written certification, in a format and method specified by the Commission, to the local health department that the private drinking water well has been grouted in compliance with rules adopted pursuant to this Article.

(e3) Health Department Optional Presence. - Upon receipt of a notice of intent to grout under subsection (e2) of this section, the local health department may opt to be present during the grouting but the failure of the local health department to be present shall not affect the authority of the well contractor to self-certify the grouting under that subsection.

(e4) Exception for Variance. - Notwithstanding subsection (e2) of this section, if a variance is issued to a rule requiring grouting of a private drinking water well to a certain depth under rules adopted pursuant to this Article, the well contractor shall schedule a grout time and inspection with the local health department and only the local health department shall have the authority to certify that the private drinking water well was grouted in compliance with this Article.

(f) Expiration and Revocation. - A construction permit or repair permit shall be valid for a period of five years except that the local health department may revoke a permit at any time if it determines that there has been a material change in any fact or circumstance upon which the permit is issued. The foregoing shall be prominently stated on the face of the permit. The validity of a construction permit or a repair permit shall not be affected by a change in ownership of the site on which a private drinking water well is proposed to be located or is located if the location of the well is unchanged and the well and the facility served by the well remain under common ownership.

(f1) Chlorination of the Well. - Upon completion of construction of a private drinking water well, the well shall be sterilized in accordance with the standards of drinking water wells established by the United States Public Health Service.

(g) Certificate of Completion. - Upon completion of construction of a private drinking water well or repair of a private drinking water well for which a permit is required under this section, the local health department shall inspect the well to determine whether it was constructed or repaired in compliance with the construction permit or repair permit. If the local health department determines that the private drinking water well has been constructed or repaired in accordance with the requirements of the construction permit or repair permit, the construction and repair requirements of this Article, and rules adopted pursuant to this Article, the local health department shall issue a certificate of completion. No person shall place a private drinking water well into service without first having obtained a certificate of completion. No person shall return a private drinking water well that has undergone repair to service without first having obtained a certificate of completion.

(h) Drinking Water Testing. - Within 30 days after it issues a certificate of completion for a newly constructed private drinking water well, the local health department shall test the water obtained from the well or ensure that the water obtained from the well has been sampled and tested by a certified laboratory in accordance with rules adopted by the Commission for Public Health. The water shall be tested for the following parameters: arsenic, barium, cadmium, chromium, copper, fluoride, lead, iron, magnesium, manganese, mercury, nitrates, nitrites, selenium, silver, sodium, zinc, pH, and bacterial indicators.

(i) Commission for Public Health to Adopt Drinking Water Testing Rules. - The Commission for Public Health shall adopt rules governing the sampling and testing of well water and the reporting of test results. The rules shall allow local health departments to designate third parties to collect and test samples and report test results. The rules shall also provide for corrective action and retesting where appropriate. The Commission for Public Health may by rule require testing for additional parameters, including volatile organic compounds, if the Commission makes a specific finding that testing for the additional parameters is necessary to protect public health. If the Commission finds that testing for certain volatile organic



compounds is necessary to protect public health and initiates rule making to require testing for certain volatile organic compounds, the Commission shall consider all of the following factors in the development of the rule: (i) known current and historic land uses around well sites and associated contaminants; (ii) known contaminated sites within a given radius of a well and any known data regarding dates of contamination, geology, and other relevant factors; (iii) any GIS-based information on known contamination sources from databases available to the Department of Environmental Quality; and (iv) visual on-site inspections of well sites. In addition, the rules shall require local health departments to educate citizens for whom new private drinking water wells are constructed and for citizens who contact local health departments regarding testing an existing well on all of the following:

- (1) The scope of the testing required pursuant to this Article.
- (2) Optional testing available pursuant to this Article.
- (3) The limitations of both the required and optional testing.
- (4) Minimum drinking water standards.

(j) Test Results. - The local health department shall provide test results to the owner of the newly constructed private drinking water well and, to the extent practicable, to any leaseholder of a dwelling unit or other facility served by the well at the time the water is sampled. The local health department shall include with any test results provided to an owner of a private drinking water well, information regarding the scope of the required and optional testing as established by rules adopted pursuant to subsection (i) of this section.

(k) Registry of Permits and Test Results. - Each local health department shall maintain a registry of all private drinking water wells for which a construction permit or repair permit is issued that is searchable by address or addresses served by the well. The registry shall specify the physical location of each private drinking water well and shall include the results of all tests of water from each well. The local health department shall retain a record of the results of all tests of water from a private drinking water well until the well is properly closed in accordance with the requirements of this Article and rules adopted pursuant to this Article.

(l) Authority Not Limited. - This section shall not be construed to limit any authority of local boards of health, local health departments, the Department of Health and Human Services, or the Commission for Public Health to protect public health. (2006-202, s. 4; 2006-259, ss. 50(b), 50(c), 51; 2007-182, s. 2; 2007-495, s. 1; 2008-198, s. 1; 2009-124, ss. 1, 3; 2010-31, s. 10.10A; 2011-255, ss. 1, 2; 2012-187, s. 12(a), (b); 2013-122, ss. 2, 3; 2013-413, s. 35(a); 2014-120, s. 43(a), (e); 2015-241, s. 14.30(u); 2015-246, s. 3.5(a); 2016-113, s. 17(a); 2017-10, s. 1.3(a); 2022-11, s. 6(a); 2023-90, s. 9.5.)

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SECTION .3800 - PRIVATE DRINKING WATER WELL SAMPLING

15A NCAC 18A .3801 DEFINITIONS

The following definitions shall apply throughout this Section:

- (1) "Certified laboratory" means the North Carolina State Laboratory of Public Health certified by the US Environmental Protection Agency or a laboratory certified by the Certification Section of the North Carolina Public Health Laboratory pursuant to 10A NCAC 42D to perform tests to determine the presence of coliform bacteria or the chemical constituents to be tested.
- (2) "Coliform bacteria" or "total coliform" means aerobic or facultative anaerobic, gram-negative, non-spore forming, rod shaped bacteria included in the genera *Klebsiella*, *Enterobacter*, *Escherichia* and *Citrobacter*. Coliform bacteria originate in soil, vegetation



or the intestinal tract of warm-blooded animals. The presence of coliform bacteria in a water sample indicate the presence of a pathway for bacteria and possibly pathogens to gain entry into a water supply system.

- (3) "Department of Environment and Natural Resources" or "Department" means the North Carolina Department of Environment and Natural Resources. The term also means the authorized representative of the Department.
- (4) "Fecal coliform bacteria" or "fecal coliform" means a sub-group of coliform bacteria that are present in the intestinal tract and feces of warm-blooded animals. The presence of fecal coliform bacteria in a water sample indicate fecal contamination and the presumed presence of pathogens in the water supply
- (5) "Local Health Department" means the county or district health department or its successor.
- (6) "Private drinking water well" means a private drinking water well as defined in G.S. 87-85(10a).

History Note: Authority G.S. 87-97;
Eff. July 1, 2008;
Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. July 20, 2019.

15A NCAC 18A .3802 SAMPLE COLLECTION

- (a) Within 30 days after it issues a certificate of completion for a private drinking water well that is newly constructed, the local health department shall collect water samples and submit them to a certified laboratory for analyses or ensure that water samples are collected from the well by a certified laboratory and tested by a certified laboratory. All testing shall be done in accordance with the rules of this Section.
- (b) The sample collector shall use aseptic sampling techniques for collection of coliform bacteria and sampling techniques and containers for chemical constituents following methods described in 40 CFR 141.23 and 40 CFR 143.4, which are hereby incorporated by reference including any subsequent amendments and editions, and available free of charge at: <https://www.ecfr.gov/>.
- (c) Water samples shall be collected from the sample tap at the well or the closest accessible collection point to the water source at a threadless sample tap, provided the sampling point shall precede any water treatment devices.
- (d) The well owner shall provide access and a source of power for the purpose of collecting the required water sample.
- (e) For all newly constructed private drinking water wells, samples for total coliform and fecal coliform bacteria shall be collected after the disinfectant agent has been flushed from the well and water supply system. The water shall be free of disinfectant before collection of samples for bacteria. Required water samples shall not be collected from wells that are not constructed and located in accordance with the rules of 15A NCAC 02C .0100 and .0300, which are hereby incorporated by reference, including any subsequent amendments and editions.
- (f) Samples shall be transported to the laboratory following the procedures for sample preservation and within holding times required in 40 CFR 141.23 and 143.4, and 141.21(f), which is hereby incorporated by reference including any subsequent amendments and editions, and available free of charge at: <https://www.ecfr.gov/>

History Note: Authority G.S. 87-97;



*Eff. July 1, 2008;
Readopted Eff. April 1, 2021.*

15A NCAC 18A .3803 SAMPLE ANALYSIS

- (a) Water samples shall be analyzed in the North Carolina State Laboratory of Public Health or a certified laboratory.
- (b) A water sample shall be tested for total coliform bacteria and if present, further analyzed for the presence of fecal coliform bacteria or E. coli.
- (c) A water sample shall be analyzed for Arsenic, Barium, Cadmium, Chromium, Copper, Fluoride, Lead, Iron, Magnesium, Manganese, Mercury, Nitrate, Nitrite, Selenium, Silver, Sodium, Zinc and pH.
- (d) Testing protocols shall follow EPA methods as published in the applicable sections of the most recent 40 CFR 141 and 143, Federal Register updates and the North Carolina Drinking Water Laboratory Certification rules of Section 10A NCAC 42D. Copies may be obtained from the National Archives and Records Administration through their website at <http://www.gpoaccess.gov/cfr/index.html>.

*History Note: Authority G.S. 87-97;
Eff. July 1, 2008;
Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. July 20, 2019.*

15A NCAC 18A .3804 REPORTING

- (a) Laboratories shall report results of chemical and bacteriological water sample analyses for each new private drinking water well to:
 - (1) the local health department;
 - (2) the DENR Private Water Supply Protection Branch; and
 - (3) the DHHS Division of Public Health, Epidemiology Section, Occupational and Environmental Epidemiology Branch.
- (b) Certified laboratories reporting results of sampling required by the rules of this Section shall use the reporting format developed by the North Carolina State Laboratory of Public Health for reporting private well-water sample results and shall include well identification information and a guide for interpreting sample results.
- (c) For the purposes of any notices required pursuant to the rules of this Section, notice shall be mailed to "Division of Environmental Health, On-Site Water Protection Section, North Carolina Department of Environment and Natural Resources," 1642 Mail Service Center, Raleigh, NC 27699-1642.

*History Note: Authority G.S. 87-97;
Eff. July 1, 2008;
Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. July 20, 2019.*

15A NCAC 18A .3805 DATA REVIEW

- (a) For all private well sampling data where chemical or biological contaminants are detected exceeding the Maximum Contaminant Levels (MCLs) for public drinking water, as defined in 15A NCAC 18C, the North Carolina Occupational and Environmental Epidemiology Branch (OEEB) shall provide the following to the local health department from which the sample was collected:
 - (1) information about the contaminant(s) exceeding public drinking water MCLs;



- (2) recommendations for water use limitations or treatment options to reduce exposure to a level comparable to meeting public drinking water MCLs; and
 - (3) recommendations about the need for and the frequency of repeat sampling.
- (b) The local health department shall provide information to the well owner or respective lease holder concerning chemical and biological contaminants exceeding public drinking water MCLs and the need for exposure limitation, remediation, or future sampling.

*History Note: Authority G.S. 87-97;
Eff. July 1, 2008;
Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. July 20, 2019.*

Conclusions: It is not required for the code official of the authority having jurisdiction to request a drinking water test or potable water test of a private drinking water well to verify code compliance with 2018 North Carolina Plumbing Code Section 602.2 or 2018 North Carolina Residential Code, Section P2901.1 (Potable water required). Verification of “potable water” from a private drinking water well is the responsibility of the local health department. The code official of the authority having jurisdiction does have the authority to request a Certificate of Completion (N.C.G.S 87-97) for a private drinking water well from the owner or local health department to verify code compliance with 2018 North Carolina Plumbing Code Section 602.2 or 2018 North Carolina Residential Code, Section P2901.1 (Potable water required) along with verification of a code-compliant connection of the water service pipe to the private drinking water well, as well as other appurtenances included within the North Carolina State Building Code but not included within the inspection scope of the local health department as defined in N.C.G.S 87-97. The Certificate of Completion from the local health department allows the owner to put the private drinking water well into service. With the Certificate of Completion (N.C.G.S 87-97) added to the permit file, verification of a code-compliant connection of the water service pipe to the private drinking water well and approval of other related work under the permit, the code official of the authority having jurisdiction can issue a Certificate of Compliance under 2018 North Carolina Administrative Code and Policies (204.8.2 Certificate of compliance). Upon satisfactory completion of the building and after final inspection, the code official of the authority having jurisdiction can issue a Certificate of Occupancy under 2018 North Carolina Administrative Code and Policies (204.8.4 Issuing certificate of occupancy.)

Sincerely,

David Rittlinger, PE, LEED AP
Division Chief – Codes & Interpretations
North Carolina Office of State Fire Marshal



**OFFICE OF STATE
FIRE MARSHAL**
NC DEPARTMENT OF INSURANCE

cc: Bridget Herring, Chair – BCC
 Mark Matheny, Vice-Chair – BCC
 Michael Ali, Chair, Commercial Super Committee – BCC
 Rob Howard, Chair, Residential Super Committee - BCC
 Nathan Childs, Esq., NCDOJ, counsel for NC Building Code Council, nchilds@ncdoj.gov
 Brent Heath, Director of Governmental Affairs and Disaster Response Coordinator - North
 Carolina Office of State Fire Marshal, brent.heath@ncdoj.gov





ATTACHMENT A



August 14, 2024

David Rittlinger, PE
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NC Department of Insurance
1429 Rock Quarry Road, Ste 105
Raleigh, North Carolina 27610
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VIA EMAIL AND US MAIL

RE: Request for Formal Interpretation

Mr. Rittlinger,

A large portion of Union County is located within the "Carolina Slate Belt," where arsenic, iron, and manganese deposits are naturally occurring. These deposits affect the quality, ultimately even the potability, of well water in rural areas of the County. Perhaps in every county, but especially in Union County, it is, therefore, of utmost importance to ensure these contaminants in ground water are treated before consumption via well water piped into new dwellings and commercial structures for human consumption.

The 2018 North Carolina State Building Code: Plumbing Code ("Plumbing Code"), Sections 202, 602.1, and 602.2, appears to require that the County ensure that well water is potable and safe to consume before a new dwelling or commercial structure is lawfully occupied. "Structures equipped with plumbing fixtures and utilized for human occupancy or habitation shall be provided with a potable supply of water..." Plumbing Code, Section 602.2. "Only potable water shall be supplied to plumbing fixtures that provide water for drinking..." Plumbing Code, Section 602.1. We believe this conclusion is further supported by the 2018 North Carolina State Building Code: Administrative Code and Policies ("Administrative Code"), Section 204.8.4, which provides that a Certificate of Occupancy ("CO") cannot be issued until the structure is satisfactorily complete according to the applicable requirements of the State Building Code and cannot be safely occupied until there is a source of potable water. Accordingly, Union County has determined that it should no longer issue a CO for new dwellings or commercial structures served by a private drinking water well, until water quality testing is performed, and the results are evaluated and determined to be potable.

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unioncountync.gov



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Section 602.2, Potable Water required. Only potable water shall be supplied to plumbing fixtures that provide water for drinking, bathing or culinary purposes, or for the processing of food, medical or pharmaceutical products. Unless otherwise provided in this code, potable water shall be supplied to all plumbing fixtures.

Section 204.8.4, Issuing Certificate of Occupancy. Upon satisfactory completion of a building and after the final inspection, the inspection department may issue a certificate of occupancy. The certificate of occupancy shall state the occupancy may be safely occupied.

The Plumbing Code requires potable water be supplied to structures equipped with plumbing fixtures and utilized for human occupancy or habitation. *See* Plumbing Code, Section 602.1. Further, only potable water shall be supplied to plumbing fixtures that provide water for drinking, bathing or culinary purposes, or for the processing of food, medical or pharmaceutical products. *See* Plumbing Code, Section 602.2. Potable water as defined by the Plumbing Code requires water to be free from impurities present in sufficient amounts to cause harmful effects and to conform to the water quality requirements of the Public Health Service Drinking Water Standards or the regulations of the public health authority having jurisdiction. *See* Plumbing Code, Section 202. N.C. Gen. Stat. § 87-97 contains the regulations of the public health authority having jurisdiction in Union County. The statutorily mandated process for determining the potability of water appears to be by requiring the testing of private well water for contaminants in accordance with N.C. Gen. Stat. § 87-97(h). Without confirmation of water

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potability by water quality testing, we believe there cannot be full compliance with the Plumbing Code, and, therefore, the State Building Code.

Until there is full compliance with the State Building Code, a CO cannot be issued. See Administrative Code, Section 204.8.4 (requiring that only upon final passing of inspections, can a CO be issued, stating the structure can be safely occupied). This is because, by issuing the COs, a positive affirmation is made that the structure is in compliance with the State Building Code and any other applicable regulations. Therefore, our interpretation is that COs should not be issued, and should be withheld, until water quality testing is performed to confirm that water from the private drinking water well is potable.

Our request for a formal interpretation of the Plumbing Code, Sections 202, 602.1, and 602.2, in relation to the issuance of COs as stated Section 204.8.4 of the Administrative Code, is to provide clarity as to how the County should implement the State's policy objectives expressed in its Building Code. As the local public health authority attempting to implement these requirements, we want to ensure we are aligned with the State's requirements to effectuate what we believe is a requirement to withhold the issuance of a CO for new dwellings and commercial structures served by private drinking water wells until water quality testing can be performed and evaluated to confirm the well water is potable.

Thank you for your consideration. Should you have any questions, please contact me at 704-283-3643.

Respectfully,

Mark Griffin
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