



Welcome

Water Rules 2011
Significant Changes
OAC 3701-28-04

Residential Water and Sewage Program

Rule OAC 3701-28-04

Key Changes: Inspections

- Change contractor inspection frequency to **once every five years**.
- ODH inspects **Well and Well Sealing Contractors**
LHD all others
- **Owner required to contact LHD** for sample
- *LHD required to follow-up after receipt of Well Logs and other forms*
- **Water samples** to be collected at sample tap at or near pressure tank.
- **Pressure tank** must be made **accessible**.
- **Where** pressure tank is buried or **inaccessible** – **sample collected at closest spigot**

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Inspection; water sample collection and analysis and water quality standards.

- (B) The **owner** of a new or altered private water system is **responsible to contact the board of health for the collection of water samples when work on the private water system has been completed.** The property owner shall provide reasonable access to the board of health for pre construction site evaluations and for conducting final inspection of the outside and inside components of the private water system and for collection of required water sample(s) while the permit remains valid.
- ALSO:

OAC 3701-28-04

**Inspection; water sample collection and analysis and water
quality standards.**

- (C) The board of health shall inspect each private water system constructed, altered, or sealed after the effective date of this rule to determine compliance with this chapter. **When a property owner has not contacted the board of health within thirty working days after the board of health has received documentation indicating that the private water system construction, alteration, or sealing has been completed, such as a well log and or job status completion form or other notification, *the board of health shall contact the property owner in order to determine the completion status of the private water system and to schedule an inspection and water sample* (when applicable).**

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Inspection; water sample collection and analysis and water quality standards.

Additional Requirements for LHD inspection

- (5) The pitless adaptor **when necessary**
- (6) Removal of the well cap for determination of proper well cap type, proper installation and venting and observation of the inside of the casing **when necessary**.
- (7) The dedicated water sample port and pressure relief valve.
- (8) Required backflow devices.

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Inspection; water sample collection and analysis and water quality standards.

If “(E)(2) **Grout** is not detected at or **below the *water service line connection to the casing.***”

May require excavation by the contractor

Note: Although **grout is still required to come to the surface, when the pitless adaptor is installed, the grout may be removed and replaced with clean clay .*

LHD needs to obtain longer probes for grout inspection.

OAC 3701-28-04

Inspection; water sample collection and analysis and water quality standards.

Contractor Inspections

- **ODH inspects**

(F) **The department or any designated staff of the board of health or a person designated by the department to conduct contractor inspections shall inspect every registered contractor that *constructs or seals a private water system well* within Ohio at least **once every five years**. The inspection shall take place during the drilling, construction and/ or sealing process to determine that the private water system is being constructed or sealed in compliance with this chapter.**

OAC 3701-28-04

Inspection; water sample collection and analysis and water quality standards.

Contractor Inspections

Local Health Department Inspects

- (1) Registered contractors that perform work on private water systems other than constructing or sealing a well shall obtain an inspection from a board of health at least once every five years. The inspection shall take place during the construction process to determine that the private water system is being constructed in compliance with this chapter.***

Rule OAC 3701-28-04 – Key Changes

Water Sampling

- Clarify water sample collection and transport procedures
- Allow for alternative bacteria testing to get **colony counts for water wells not requiring continuous disinfection**
 - Using MMO/Mug Multiple Well Tray Most Probable Number
 - Membrane Filter counts
 - Regular MMO/Mug
 - E-coli/Fecal Coliform, Primary pathogens

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Inspection; water sample collection and analysis and water quality standards.

PWS required to have continuous disinfection and Hauled Water must a required chemical residual present prior to collecting the sample (excluding UV).

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Inspection; water sample collection and analysis and water quality standards.

- **All** water samples collected to determine compliance shall be collected at the point of discharge at the **PRESSURE TANK** *unless the pressure tank is inaccessible.*
- (G)(4) “All water samples collected as part of the permit requirements of this chapter shall be collected at the point of **discharge of the system**, and shall not be collected from hoses, outside spigots, or yard hydrants. **When the pressure tank is located in an inaccessible crawl space, in an underground vault or buried below the ground surface, and when no other sample taps are accessible, a water sample may be collected from the closest spigot to the pressure tank.**”

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Inspection; water sample collection and analysis and water quality standards.

- (G)(5)... If the water sample is collected from the well head out of the pitless adaptor, it shall be run for a minimum of three minutes.



OAC 3701-28-04

Inspection; water sample collection and analysis and water quality standards.

- (G)(6) The person collecting the water sample shall sanitize their hands just prior to collection.

Use gloves or hand sanitizer

OAC 3701-28-04 (G) (7)

Inspection; water sample collection and analysis and water quality standards.

The use of **quaternary ammonia** and **flaming (a metal tap)** can now be used to sanitize the sample tap in addition to chlorine and isopropyl alcohol.

OAC 3701-28-04 (G)

Inspection; water sample collection and analysis and water quality standards.

(9) Water samples to be tested for nitrates, shall be stabilized at the site or transported to the laboratory within **twenty-eight hours**.

(10) All water samples to be tested for bacteria, shall be kept at a minimum of **ten degrees Celsius**... - Cold packs or ice OK

...in a closed container and transported to the laboratory within twenty-eight hours (instead of 30 hours).

Rule OAC 3701-28-04 – Key Changes Water Well Bacteria Standard

- **New Bacteria Standards**
 - Water wells with 25 ft casing or more (no continuous disinfection) – standard is up to 4 total coliform CFUs is acceptable (any CFU number more than four, such as 4.1, is unacceptable) , or presence of *E. Coli* or fecal coliform.
 - Water wells with less than 25 ft of casing, spring, ponds and cisterns that use continuous disinfection - zero detection of bacteria
- **Health based contaminant levels – if well sampled for chemicals – public drinking water standards for recommendations for drinking and treatment.**

OAC 3701-28-04

Inspection; water sample collection and analysis and water quality standards.

- (11) ... Testing for total coliform or coliform CFU counts shall use approved methods that are appropriate to the source of the water being tested and the observed or known water quality.

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Inspection; water sample collection and analysis and water quality standards.

- (12) When a coliform CFU count is required the number of coliform bacteria CFU can be determined by using a MMO/MUG multiple well tray most probable number method, membrane filter method, multiple tube, or other methods for bacterial enumeration described in the most current edition of Standard Methods for the Examination of Water and Wastewater by the American Public Health Association, American Water Works Association, and Water Pollution Control Federation, or other methods approved by the director.

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Inspection; water sample collection and analysis and water quality standards.

- (13) For private water systems required to **utilize continuous disinfection** and/or maintain a chemical disinfectant residual, the indicator bacteria shall be determined using approved methods that determine a CFU count **or** indicate the **presence or absence** of the indicator bacteria.

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Inspection; water sample collection and analysis and water quality standards.

- (J) The following microbiological standards and maximum contaminant levels (MCL) apply to all private water systems unless otherwise specified:

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Inspection; water sample collection and analysis and water quality standards.

Again...

- (1) For **water wells not using continuous disinfection**, the acceptable level for bacteria indicators in the water sample shall be:
 - (a) **Four or less total coliform CFU** per one hundred milliliters of water for the purposes of acceptable well construction and development and as an indication of the presence of opportunistic bacteria and;
 - b) **No detection of Escherichia coli CFU** per one hundred milliliters of water and;
 - c) **If additional microbiological speciation analysis or coliphage testing is done, there shall be no detection of any primary pathogenic microorganism, other fecal indicator microorganisms, or coliphages as determined by the director.**

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Inspection; water sample collection and analysis and water quality standards.

- (2) For any **private water system** required to have **continuous disinfection and/or filtration** in accordance with paragraphs (A) and (B) of rule 3701-28-15 of the Administrative Code, there shall be ***no detection of total coliform*** CFU, or Escherichia coli CFU per one hundred milliliters of water, or if additional microbiological testing or speciation analysis or coliphage testing is done, any primary pathogenic microorganism as determined by the director.

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Inspection; water sample collection and analysis and water quality standards.

- (3) Water sample **results determined using membrane filter that indicate a high background count or confluent growth** are considered **invalid** and may not be used to determine compliance with the water sample requirement of this rule.

Other Standards *not* in Rule 4 *That Apply to Well Construction*

- Methane gas standard (10 mg/l) for well venting in **OAC 3701-28-10 (O)**
- TDS-saline standard (3000 mg/l) for well construction **OAC 3701-28-10 (N)**

And limits on Chloride (500mg/l) and TDS (1500 mg/l) for using *Bentonite Grout*

-OAC 3701-28-09 (G)(2)