

Cleveland Water Backflow Prevention Policies

Pursuant to section [531.23 of City Of Cleveland codified ordinances](#), Cleveland Water requires the installation, testing and maintenance of a backflow prevention device on any service connection that presents either an actual or potential hazard to the potable water system.

The type of device required depends on the degree of hazard involved. This determination will be made by Cleveland Water and will generally be in agreement with the provisions of the “rules and regulations on cross-connection control” on file with the Ohio Department of Health (ODH) and the Ohio Environmental Protection Agency (OEPA) as part of the Ohio Administrative Code (OAC) 3745-95.

The backflow prevention device and its installation, testing and maintenance must be approved by Cleveland Water and meet requirements of state rules and regulations.

[City of Cleveland codified ordinance 531.23](#): backflow prevention control device required, click link below for more information:

General requirements

An approved backflow prevention assembly shall be required on each water service connection serving premises where the following conditions exist:

1. Premise or consumer having an auxiliary water supply, unless such supply is accepted as an additional source by both the water purveyor and the OEPA.
2. Premise or consumer where any substance is handled in such a fashion as to create an actual or potential hazard to the public water system. This shall include any system where water is not under the sanitary control of the Cleveland Water and where the process fluids may or may not originate with the potable water.
3. Premise or consumer having internal cross-connections that, in the judgment of Cleveland Water, are not correctable or where intricate plumbing arrangements make it impractical to determine the existence of cross-connections.
4. Premise or consumer where, because of security requirements or either prohibitions or restrictions, it is impossible to make a complete cross-connection survey.
5. Premises having a repeated history of cross-connections being established or re-established.

Backflow prevention requirements & policies

Installation

1. Cleveland Water requires backflow prevention devices to be installed on all commercial water service connections. Residential service connections may require a backflow device based upon service application review.
2. When required, customers applying for water service must submit a signed and notarized letter of intent stating a backflow preventer will be installed.
3. Cleveland Water shall determine the type and location of each backflow prevention device on domestic and fire lines based upon degree of hazard.
4. All backflow assembly devices must be on Cleveland Water's Approved Backflow Device List.
5. For domestic water service connections, the backflow prevention assembly must be installed either immediately downstream of the water meter or at the first point of entry inside the building.
6. For fire service connections, the backflow prevention assembly must be installed either at the curb stop, in a vault or heated enclosure, or at the first point of entry inside the building.
7. For fire service lines, if the distance from the curb stop to the point of entry is less than 50 feet, the backflow assembly can be installed inside the building. Otherwise, it must be placed in an underground vault or above ground heated enclosure at the curb stop.
8. When a reduced pressure type assembly is required, the assembly must be installed above ground and protected from freezing.
9. When the backflow assembly is placed inside the building:
 - a. The assembly may be installed vertically or horizontally according to manufacturer's requirements.
 - b. The assembly should be installed between 12 and 30 inches above the finished floor and at least 12 inches away from the nearest wall with 24 inches clearance in front of the assembly.
 - c. Test ports must be facing into the room, if they are side mounted devices.
 - d. The assembly must be installed in an area free of noxious fumes (for tester's safety)
10. An unprotected bypass around any backflow device is not permitted. There must be an equal protection on the bypass line. A bypass line may also be called a manifold, parallel, dual or tandem setting.
11. Cleveland Water shall inspect backflow installation after it is connected to the Cleveland Water system.

Testing

1. The customer that is required to have a backflow assembly must have a certified contractor test the device when it is installed or upon repair.
2. Testing must be performed by a person possessing a valid state of Ohio certificate of competence to test backflow prevention devices.
3. Test results are to be submitted online to Cleveland Water's backflow data management company, Backflow Solutions Inc. (BSI). <https://www.bsionlinetracking.com>
4. Cleveland Water's backflow program requires annual testing of backflow devices to insure they are in proper working order. The customer will be notified in writing when their device is due for testing. After the device is tested or repaired, the contractor must submit results in a reasonable

timeframe showing the device has passed the test. If the results are not submitted, the customer's water service may be interrupted.

5. Testing procedures

- a. Current Ohio Department of Commerce test procedures must be followed.
- b. *Double check valve assembly*: provide the static pressure differential across each check valve.
- c. *Reduced pressure*: provide the static pressure differential or drop across the #1 check valve and the differential pressure relief valve opening point.
- d. *Pressure vacuum breaker*: provide the number at the point the air inlet opens, as well as the static pressure differential across the check valve.
- e. Tests must be performed in a static condition which means the #2 shut off valve is drip tight.
- f. Contractors may use Backflow Device Test & Maintenance Worksheet to record results during test. However, as stated above, results must be submitted online to BSI. <https://www.bsionlinetracking.com>

Lawn irrigation systems

1. **All** lawn irrigation systems, for both commercial and residential properties, must have a pressure vacuum breaker or reduced pressure backflow assembly installed on the water service line supplying the system.
2. Both types of devices must be installed above ground and the pressure vacuum breaker must be installed at least 12 inches above the highest down-stream use. Caution: these devices are susceptible to freezing.
3. Lawn irrigation systems will require annual testing at the start-up of the system in the spring/summer seasons.

Auxiliary (private) water systems

An auxiliary water supply is defined as any water supply on or available to the premises other than the public water system and can also include water from the public water system if the water is stored and then redistributed. This includes but is not limited to well water, cisterns, ponds, and storage tanks. Anyone wanting to connect to Cleveland Water must do the following:

1. Complete a private water system survey form indicating whether an auxiliary system exists on their property and whether it will be abandoned or kept in service.
2. Disconnect and seal auxiliary water supply system in accordance with the board of health requirements or if keeping the system, install a reduced pressure backflow prevention assembly at the water meter.
3. If abandoning an auxiliary supply, obtain abandonment or alteration permit from the county board of health and submit copy to Cleveland Water.

Useful resources & links regarding backflow prevention

- Private water system rules as regulated by the Ohio department of health (ODH)
[Http://www.odh.ohio.gov/odhprograms/eh/water/privatewatersystems/pwsrules.aspx](http://www.odh.ohio.gov/odhprograms/eh/water/privatewatersystems/pwsrules.aspx)
- Ohio Department Of Health FAQ 17: requirements for sealing or keeping private water systems after connecting to public water system
[Http://www.odh.ohio.gov/~media/odh/assets/files/eh/water/faqs/faq17.ashx](http://www.odh.ohio.gov/~media/odh/assets/files/eh/water/faqs/faq17.ashx)
- Cuyahoga county board of health: <http://www.ccbh.net/private-water>
- Ohio administrative code chapter 3745-95: backflow prevention and cross-connection control
<http://codes.ohio.gov/oac/3745-95>
- Ohio department of health FAQ 08- requirements for all systems, sampling spigots, well pits, and backflow
[Http://www.odh.ohio.gov/~media/odh/assets/files/eh/water/faqs/faq08.ashx](http://www.odh.ohio.gov/~media/odh/assets/files/eh/water/faqs/faq08.ashx)
- Environmental protection agency cross-connection control manual
[Http://www.epa.gov/safewater/pdfs/crossconnection/crossconnection.pdf](http://www.epa.gov/safewater/pdfs/crossconnection/crossconnection.pdf)
- Ohio department of commerce backflow prevention & cross-connection control manual
http://www.com.ohio.gov/dico/docs/plum_backflowpreventionmanual.pdf

If you have any questions, please contact BSI at 800-414-4990.