Small Multifamily Exemption Application Frequently Asked Questions (FAQ)

Is my property exempt?
According to state regulation with regards to backflow prevention, all properties must comply. The enforcing agency, the Colorado Department of Public Health and Environment (CDPHE) has said that it will not force single family residential properties to comply at this time. Similarly, the city decided that duplexes and other small multifamily properties may be considered as single family residences, which the city **will not** enforce at this time. This only applies to small multifamily properties. All commercial and large multifamily properties must comply.

Is my exemption permanent?
NO. Any and all exemptions are subject to review, and exemptions may be retracted in light of any changes at the state, city or program level that call for the given property to comply. If an imminent risk to the drinking water is discovered that was not disclosed and/or misrepresented on the exemption form, the immediate installation and testing of an approved backflow prevention assembly will be required. In all other cases, changes that force compliance on previously exempt properties will be handled by notifying the property owner and developing a compliance program (timeline).

What if my property is eligible for exemption, but I've already installed a backflow prevention assembly?
If an assembly has already been installed at a property that is granted an exemption, the property has effectively complied in advance of the requirement. While testing is always recommended, if the property is exempt annual testing is not required at this time unless otherwise notified.

What if my property has a dedicated lawn irrigation or fire line but meets all other requirements for exemption?
In cases where the property meets the exemption criteria in all areas except for the presence of a dedicated line (lawn irrigation or fire), the domestic service line will remain exempt from installation and/or annual testing. The specific dedicated line in question must still comply. EX. A single family residence is exempt at this time, but if the property has (or acquires) a dedicated irrigation line it will need an approved backflow prevention assembly installed and tested annually.

How did my multifamily property or single family residence get on the list for compliance? Although the regulation states that everyone must comply, the state has said that it does not intend to force single family residences to comply unless there is a known hazard at the site (such as a dedicated irrigation line). However, updated State regulations (Regulation 11 – Section 11.39) require water suppliers to survey all service connections that are not designated as single-family residential. If the property in question was previously listed as "multifamily" and is now only being used as a single family residence, please, A) write "single family" at the top of the form, B) complete the form, C) contact Planning and Development Services at 303-441-1880 and have the property status changed.

How did my property get on list for compliance if I am not connected to city water? If the property does not physically connect to the city water supply but does use a bulk water filling station, a compliance letter may have been sent because billing records identify bulk water users as commercial customers. It the property is not connected to city water, compliance with installation and annual testing is not necessary. However, so both the property and the Backflow Prevention Program have documentation for record keeping, please fill out this form by writing "Bulk Water User" at the top of the form and filling out all pertinent customer information. It is unnecessary to initial the hazards on each line- simply write "N/A" or "not applicable" by the boxes that would normally be initialed. A signature must be provided. Signatures for bulk water users will mean that the following is understood: A) a proper air gap (a physical separation) between the filling spout and the vessel being filled will be maintained at all times and B) the Backflow Prevention Program will be notified if a connection to city water is made to verify if backflow prevention requirements apply to the property in question.

My property is a commercial property which is just office space, am I eligible for exemption?
NO. If the property is billed/zoned as a commercial property it is required to comply. Commercial properties are differentiated from small multifamily properties or single family residences not only because of current use but because of future use. Although some commercial properties may not currently have hazards, commercial properties often change operations or change owners, so there is a higher potential for increased hazards to exist at these properties. Furthermore, it cannot be guaranteed that potential hazards will not be installed in the future and that they will be properly protected. As the state regulation requires the city to protect all actual and potential cross-connections, the city must secure all commercial properties.

My property is mixed use (commercial and multifamily) can I be exempt?
NO. If a property is commercial in any way, the owner must install and test backflow prevention assemblies on any line entering the property.

How many units can be present at a multifamily property to be eligible for exemption? Multifamily properties are evaluated by the hazard presented by the property, by operations at the property and by the number people accessing that property. Exemptions are currently offered to multi-family residential properties with 8 units or less that meet all of the criteria in the exemption application. Larger multifamily properties represent a larger risk because of factors including fire lines, larger sprinkler systems, increased potential for internal cross-connections and the presence of other hazards that more closely resemble a typical commercial property.

How do I find out if I have a backflow prevention assembly on my domestic or fire line? The following steps can help you verify the presence or absence of a backflow prevention assembly: 1) On the Backflow Prevention Program homepage, open the "General Backflow Information" section; 2) On the PDF use the pictures of the assemblies to identify what you are looking for – for fire or domestic water lines look for either a Reduced Pressure Zone Assembly (RP or RPZ) or a Double Check Assembly (DC); 3) locate where the water enters the property (these assemblies are usually indoors) such as in a mechanical closet or a boiler or water heater room; 4) because the assembly must be installed prior to any plumbing branches, look for where the water line enters the room (usually through the wall but may come up through the floor); 5) once the water line is found, look for the RP or the DC as shown in the PDF.

How do I find out if I have a backflow prevention assembly on my lawn irrigation line? The following steps can help you verify the presence or absence of a backflow prevention assembly: 1) On the Backflow Prevention Program homepage, click on the "General Backflow Information" section; 2) on the PDF use the pictures of the assemblies to identify what you are looking for – for fire or lawn irrigation look for either a Reduced Pressure Zone Assembly (RP or RPZ) or a Pressure Vacuum Breaker (PVB); 3) as these assemblies are generally installed outside, locate the valve box for the irrigation system (in the yard); 4) just prior to the valve box the brass RP or PVB should be visible - both would stick up out of the ground twelve inches or more. *Please note: if an assembly exists, but is buried in the ground or in a vault it will have to be relocated or replaced.*

What is a hydronic heating system?
Hydronic heating systems circulate heated water, sometimes mixed with chemical additives like antifreeze, throughout a property in order to heat the home when it's cold. Water heaters are not considered hydronic heating systems as they simply heat water for domestic use. Boilers and heat exchangers are common hydronic heat sources.

What is a hydronic cooling system?
Hydronic cooling systems circulate cooled water, sometimes mixed with chemical additives like antifreeze to cool a property. Swamp coolers or misters are generally excluded from this category and do not need to be considered when filling out the exemption form.

Why does it matter if I have a boiler?

The largest concern with boilers is that they often use chemicals like antifreeze to keep lines from freezing. Further, chemical solutions may be run through boilers for cleaning. In either case, chemicals could get back into the drinking water supply during a backflow event. On affected single family residences and small multifamily properties with small boilers, as long as chemicals are not in use, an exemption may still be granted or installation and annual testing of and RPZ backflow prevention assembly may be required.

Doesn't my boiler already have protection?
Sometimes boilers are isolated and protected with a non-testable backflow prevention device, which does not meet state regulation for a testable backflow prevention assembly installed as "containment." If the boiler is determined to be the only hazardous cross-connection on the water line, installation and annual testing of an RPZ backflow prevention assembly may be required to isolate the boiler.

What does "Containment" mean?
Containment refers to the location where the assembly is installed; a containment backflow prevention assembly is installed after the meter but prior to any plumbing branches (T's, takeoff's, appliances, etc). Any other assembly past the point of containment is referred to as an isolation assembly. Containment backflow prevention assemblies should be installed and annually tested by state regulation.

What is an "Isolation" assembly?
Any assembly installed after the point of containment; isolation assemblies isolate specific hazards or specific water lines off a larger water line but do not protect the entire plumbing system fed by the larger water line. While isolation assemblies are not usually required under state regulation, isolation assemblies must often be installed by plumbing code.

What if I have a fire line that branches off my internal plumbing prior to where the backflow prevention assembly should be installed?
If the fire line is a separate line or if it branches off prior to where the backflow prevention assembly will be installed, then a second backflow prevention assembly will need to be placed on that fire line. If the assembly can be placed prior to the fire line branch, then only one assembly is needed. In all cases, hydraulics of the fire system should be evaluated to make sure that any pressure drop caused by the backflow prevention assembly does not affect the ability of the fire system to suppress a potential fire. For more information, please contact the Boulder Fire Department.

What if I have a lawn irrigation line that branches off my internal plumbing?
The irrigation line should have a backflow prevention assembly according to plumbing code. For this reason, there is no annual testing requirement enforced by regulation. However, owners should test any backflow prevention assemblies to protect the water within the property. Any exemption by this form would not alleviate any responsibility to install and/or test any backflow prevention assemblies that may be required by plumbing code. If there are questions as to whether an assembly is needed, call Planning and Development Services at 303-441-1880 to discuss plumbing code concerns.

What is an auxiliary water source?
An auxiliary water source is any water supply used to augment water supplied by the city for any purpose. Wells, ditch water, ponds, or any other outside water source is an auxiliary water source which needs to be isolated or contained by installing a backflow prevention assembly at the property.

What if my well is in no way connected to my internal plumbing?
As the state requires the protection of all actual or potential cross-connections, there is a real risk that the well could be either intentionally or accidentally connected with the homes internal plumbing. For this reason, the property will require backflow prevention.

When would chemicals be injected into my plumbing and/or irrigation system?

Some examples of chemical injection include but are not limited to the injection of chemical into fire systems (antifreeze), into boilers (chemical cleaners), or fertilizer (sometimes called "chemigation" systems) into lawn sprinkler systems. When pumps are used to inject chemicals this is always considered a cross-connection.

What is an example of direct cross-connection to the sanitary sewer?
Cross-connections with sanitary sewers typically happen when hoses or drain pipes are connected directly to the sewer. For example, a kitchen faucet spilling water in the drain is not a cross-connection because the faucet spout is above the flood-rim of the sink (i.e., air gap). However, if a hose is connected to the end of the faucet spout and allowed to hang into the sink such that when water fills the sink it could create a back-siphon, which is a cross-connection. In the example given, when the sink fills, bacteria or chemicals from the sink could get into the drinking water or if the sewer backed-up bacteria from the sanitary sewer could get back into the drinking water. Other common internal cross-connections include appliance drains being plumbed directly into the sanitary sewer or connected without a proper air gap. It's important to: 1) make sure appliance (like water heaters and water softeners) drains do not extend into the sanitary sewer, 2) do not use extender hoses which connect to faucet or tub spouts, and 3) always use garden hoses correctly such that they never are submerged in mixing buckets and they are put away at the end of use (not allowed to sit in mud puddles).

What is process water? What is make-up water?
Process water is water that becomes contaminated during some sort of industrial process such as photo processing or X-ray development. Make-up water is water which is contaminated as it is mixed (usually with antifreeze or some other chemical) to make-up a water-chemical solution.

Why does a swimming pool matter and what happens if I have a swimming pool? Swimming pools can be home to bacteria or other harmful chemicals. When backflow occurs, pool water can be pulled back into the drinking water supply. Swimming pools which are connected directly to the domestic water supply need to be protected. This can be achieved through a separate backflow prevention assembly or an air gap (a non-submerged filling point where the water falls through air to fill the pool).

Where do I measure to know if my building is considered to be above three stories and why does it matter?
Buildings over three stories in height generally require backflow prevention assembly based on their height alone. This is because over 36' in height, and the weight of water in the water column can potentially push water back into city water supply when the system is experiencing low pressure. Three stories are assumed to be about (12 feet x 3) 36 feet in height (above ground); because the plumbing generally enters at the top of the basement, basements need not be considered in the overall calculation. Similarly, attic space with no plumbing should also be disregarded

What if I can't check off each statement on the front page, does that mean I have to comply? Generally, Yes. However, the city will make all efforts to work with you. If you are unsure or have specific questions, please call 303-413-7401.

For more information, please visit the Backflow Prevention Program at boulderwater.net or contact the Backflow Prevention Program for more specific questions.

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