

CITY OF BUCKLEY

ORDINANCE NO. 12-19

AN ORDINANCE OF THE CITY OF BUCKLEY, PIERCE COUNTY, WASHINGTON REPEALING BMC 14.05 RELATED TO CROSS-CONNECTION CONTROL AND BACKFLOW PREVENTION AND ADOPTING A NEW CROSS CONNECTION CONTROL PROGRAM IN COMPLIANCE WITH WASHINGTON STATE DEPARTMENT OF HEALTH REGULATION AND WAC 246-290-490

WHEREAS, it is the responsibility of a water purveyor to provide water to the customer at the end of the service connection or meter that meets State water quality standards; and

WHEREAS, it is the water purveyor's responsibility to prevent the contamination of the public water system from the consumer's water system, which begins at the downstream end of the service connection or water meter; and

WHEREAS, cross connections within the customer's plumbing system pose a potential source for the contamination of the public water supply system, and

WHEREAS, it is a requirement of the Washington Department of Health for the purveyor to establish and/or maintain a cross connection control program satisfactory to the Department of Health; and

WHEREAS, the City has determined that the current Cross-Connection Control and Backflow Prevention Regulations are outdated and have not kept pace with changes to WAC 246-290-490; and

WHEREAS, the City desires to adopt a new Cross-connection Control Program that meets the requirements of WAC 246-290-490;

Now therefore be it resolved that:

Section 1: Chapter 14.05 of the Buckley Municipal Code entitled "Cross-connection and Backflow Prevention" is hereby repealed, in its entirety:

Section 2: A new Chapter 14.05 is hereby adopted entitled "Cross-connection Control Program and shall read as follows:

14.05.010 Purpose.

The City of Buckley, hereinafter referred to as the Purveyor, establishes the following Ordinance to protect the Purveyor-owned water system from the risk of contamination due to backflow through service connections to customers water systems. For public health and safety, this policy shall apply equally to all new and existing customers.

14.05.020 Definitions, Acronyms, and Abbreviations.

AG - air gap;

AVB - atmospheric vacuum breaker;
AWWA - American Water Works Association;
BAT - backflow assembly tester;
CCS - cross-connection control specialist;
DCDA - double check detector assembly;
DCVA - double check valve assembly;
DOH – Washington State Department of Health;
IAPMO - International Association of Plumbing and Mechanical Officials;
PVBA - pressure vacuum breaker assembly;
RPBA - reduced pressure backflow assembly;
RPDA - reduced pressure detector assembly;
SVBA - spill resistant vacuum breaker assembly;
UPC - Uniform Plumbing Code;
WAC - Washington Administrative Code;

"Approved air gap" means a physical separation between the free-flowing end of a potable water supply pipeline and the overflow rim of an open or non-pressurized receiving vessel. To be an air gap approved by the department, the separation must be at least:

- Twice the diameter of the supply piping measured vertically from the overflow rim of the receiving vessel, and in no case be less than one inch, when unaffected by vertical surfaces (sidewalls); and:
- Three times the diameter of the supply piping, if the horizontal distance between the supply pipe and a vertical surface (sidewall) is less than or equal to three times the diameter of the supply pipe, or if the horizontal distance between the supply pipe and intersecting vertical surfaces (sidewalls) is less than or equal to four times the diameter of the supply pipe and in no case less than one and one-half inches.

"Approved atmospheric vacuum breaker" means an AVB of make, model, and size that is approved by the department. AVBs that appear on the current approved backflow prevention assemblies list developed by the University of Southern California Foundation for Cross-Connection Control and Hydraulic Research or that are listed or approved by other nationally recognized testing agencies (such as IAPMO, ANSI, or UL) acceptable to the local administrative authority are considered approved by the department.

"Approved backflow preventer" means an approved air gap, an approved backflow prevention assembly, or an approved AVB. The terms "approved backflow preventer," "approved air gap," or "approved backflow prevention assembly" refer only to those approved backflow preventers relied upon by the purveyor for the protection of the public water system. The requirements of WAC 246-290-490 do not apply to backflow preventers installed for other purposes.

"Approved backflow prevention assembly" means an RPBA, RPDA, DCVA, DCDA, PVBA, or SVBA of make, model, and size that is approved by the department. Assemblies that appear on the current approved backflow prevention assemblies list developed by the University of Southern California Foundation for Cross-Connection Control and Hydraulic Research or other entity acceptable to the department are considered approved by the department.

"Backflow" means the undesirable reversal of flow of water or other substances through a cross-connection into the public water system or consumer's potable water system.

"Backflow assembly tester" means a person holding a valid BAT certificate issued in accordance with chapter 246-292 WAC.

"Backpressure" means a pressure (caused by a pump, elevated tank or piping, boiler, or other means) on the consumer's side of the service connection that is greater than the pressure provided by the public water system and which may cause backflow.

"Backsiphonage" means backflow due to a reduction in system pressure in the purveyor's distribution system and/or consumer's water system.

"Closed system" means any water system or portion of a water system in which water is transferred to a higher pressure zone closed to the atmosphere, such as when no gravity storage is present.

"Combination fire protection system" means a fire sprinkler system that:

- Is supplied only by the purveyor's water;
- Does not have a fire department pumper connection; and
- Is constructed of approved potable water piping and materials that serve both the fire sprinkler system and the consumer's potable water system.

"Customer" means any person receiving water from a public water system from either the meter, or the point where the service line connects with the distribution system if no meter is present. For purposes of cross-connection control, "consumer" means the owner or operator of a water system connected to a public water system through a service connection.

"Customer's water system," as used in WAC 246-290-490, means any potable and/or industrial water system that begins at the point of delivery from the public water system and is located on the consumer's premises. The consumer's water system includes all auxiliary sources of supply, storage, treatment, and distribution facilities, piping, plumbing, and fixtures under the control of the consumer.

"Contaminant" means a substance present in drinking water that may adversely affect the health of the consumer or the aesthetic qualities of the water.

"Cross-connection" means any actual or potential physical connection between a public water system or the consumer's water system and any source of non-potable liquid, solid, or gas that could contaminate the potable water supply by backflow.

"Cross-connection control program" means the administrative and technical procedures the purveyor implements to protect the public water system from contamination via cross-connections as required in WAC 246-290-490.

"Cross-connection control specialist" means a person holding a valid CCS certificate issued in accordance with chapter 246-292 WAC.

"Cross-connection control summary report" means the annual report that describes the status of the purveyor's cross-connection control program.

"Department of Health" means the Washington State Department of Health (DOH) or health officer as identified in a joint plan of operation in accordance with WAC 246-290-030(1).

"Down stream" means on the customer's side of the meter or service connection or on the outlet side of a backflow preventer.

"Flow-through fire protection system" means a fire sprinkler system that:

- Is supplied only by the purveyor's water;
- Does not have a fire department pumper connection;
- Is constructed of approved potable water piping and materials to which sprinkler heads are attached; and
- Terminates at a connection to a toilet or other plumbing fixture to prevent the water from becoming stagnant.

"High health cross-connection hazard" means a cross-connection, which could impair the quality of potable water and create an actual public health hazard through poisoning or spread of disease by sewage, industrial liquids or waste.

"In-premises protection" means a method of protecting the health of consumers served by the consumer's potable water system, located within the property lines of the consumer's premises by the installation of an approved air gap or backflow prevention assembly at the point of hazard, which is generally a plumbing fixture.

"Intertie" means an interconnection between public water systems permitting the exchange or delivery of water between those systems.

"Local administrative authority" means the local official, board, department, or agency authorized to administer and enforce the provisions of the Uniform Plumbing Code as adopted under chapter 19.27 RCW.

"Low health cross-connection hazard" means a cross-connection that could cause an impairment of the quality of potable water to a degree that does not create a hazard to the public health, but does adversely and unreasonably affect the aesthetic qualities of such potable waters for domestic use.

"Potable" means water suitable for drinking by the public.

"Premises isolation" means a method of protecting a public water system by installation of approved air gaps or approved backflow prevention assemblies at or near the service connection or alternative location acceptable to the purveyor to isolate the consumer's water system from the purveyor's distribution system.

"Public water system" is defined and referenced under WAC 246-290-020.

"Purchased source" means water a purveyor purchases from a public water system not under the control of the purveyor for distribution to the purveyor's consumers.

"Purveyor" means an agency, subdivision of the state, municipal corporation, firm, company, mutual or cooperative association, institution, partnership, or person or other entity owning or operating a public water system. Purveyor also means the authorized agents of such entities.

"Reclaimed water" means effluent derived in any part from sewage from a wastewater treatment system that has been adequately and reliably treated, so that as a result of that treatment, it is suitable for beneficial use or a controlled use that would not otherwise occur, and it is no longer considered wastewater.

"Service connection" means a connection to a public water system designed to provide potable water to a single-family residence, or other residential or nonresidential population.

"Unapproved auxiliary water supply" means a water supply (other than the purveyor's water supply) on or available to the consumer's premises that is either not approved for human consumption by the health agency having jurisdiction or is not otherwise acceptable to the purveyor.

"Up stream" means on the Purveyor's side of the water meter or on the inlet side of a backflow preventer.

"Uniform Plumbing Code" means the code adopted under RCW 19.27.031(4) and amended under chapter 51-46 WAC. This code establishes statewide minimum plumbing standards applicable within the property lines of the consumer's premises.

"Used water" means water which has left the control of the purveyor.

14.05.030 Prevention of Contamination.

The customer's plumbing system, starting from the termination of the Purveyor's water service pipe, shall be considered a potential high health hazard requiring the isolation of the customer's premises by a Purveyor / DOH approved, customer installed and maintained reduced pressure backflow assembly (RPBA) or detector derivative (RPDA) thereof. The RPBA or RPDA shall be located at the end of the Purveyor's water service pipe (i.e., at the service connection and immediately downstream of the meter). Water shall only be supplied to the customer through a Purveyor and WA DOH approved, customer installed, and maintained, RPBA or RPDA.

Notwithstanding the aforesaid, the Purveyor, upon an assessment of the risk of contamination and the degree of hazard posed by the customer's plumbing system and use of water, may allow;

- any customer, as a minimum, to be supplied through a Purveyor / DOH approved, customer installed and maintained double check valve assembly (DCVA) or double check detector assembly (DCDA); or
- a single family or duplex residential customer to connect directly to the water service pipe, i.e., without a Purveyor / DOH approved RBPA or DCVA; and that
- any customer, other than a single family or duplex residential customer to connect directly to the water service pipe without a Purveyor / DOH approved DCVA or RPBA provided that the customer signs the purveyor's water service agreement and installs and maintains backflow preventers, at the point of hazard, commensurate with the degree of hazard, as assessed by the purveyor.

14.05.040 Conditions for Providing Service.

Water service is provided based on the following terms and limitations:

- 1) The customer agrees to take all measures necessary to prevent the contamination of the plumbing system within his premises and the Purveyor's potable water system that may occur from backflow through a cross connection. These measures shall include the prevention of backflow under any back pressure or backsiphonage condition, including the disruption of supply from the Purveyor's system that may occur by during routine system maintenance or during emergency conditions, such as a water main break.

2) The customer agrees to install, operate and maintain at all times his plumbing system in compliance with the current edition of the City of Buckley Plumbing Code as it pertains to;

- the prevention of contamination, and
- protection from thermal expansion due to a closed system that could occur with the present or future installation of backflow preventers at the customer's service connection and/or at plumbing fixtures.

3) For cross connection control or other public health related surveys, the customer agrees to provide free access for the employees or agents of the Purveyor to all parts of the premises during reasonable working hours of the day for routine surveys, and at all times during emergencies.

4) Where agreement for free access for the purveyor's is denied, water service will only be supplied after premises isolation is provided by a Purveyor / DOH approved reduced pressure backflow assembly (RPBA) All required RPBA shall be installed, tested and maintained at the owners expense.

5) The customer agrees to install all backflow prevention assemblies requested by the Purveyor, and to maintain those assemblies in good working order. The assemblies shall be of a type, size and make approved by the Purveyor and the Department of Health. The assemblies shall be installed in accordance with the Purveyor's backflow assembly installation standards and specifications.

6) The customer agrees to have all backflow prevention assemblies installed to protect the purveyor's water system;

- to be tested upon installation, annually thereafter or when requested by the Purveyor, after repair and after relocation all RPBA or DCVA installed to protect the Purveyor's distribution system; and
- to have the testing done by a Purveyor approved and State Department of Health currently certified Backflow Assembly Tester (BAT); and
- to have the RPBA or DCVA tested following the procedures approved by the DOH; and
- to submit to the Purveyor the results of the test(s) on the Purveyor supplied test report form within the time period specified by the Purveyor.

7) The customer agrees to bear all costs for the aforementioned installation, testing, repair, maintenance and replacement of the RPBA or DCVA or derivative thereof installed to protect the Purveyor's distribution system.

- plumbing plans; and/or
- a cross connection control survey of the premises conducted by a Purveyor approved and Department of Health certified Cross Connection Control Specialist (CCS).

The survey shall assess the cross connection hazards and list all approved backflow preventers provided within the premises. The results of the survey shall be submitted prior to the Purveyor turning on water service to a new customer. The cost of the survey shall be borne by the customer.

8) All customers, other than single-family residences, when required by the Purveyor, agree to submit a cross connection control re-survey of the premises by a Purveyor approved and Department of Health certified Cross Connection Control Specialist (CCS). The Purveyor may require the re-survey to be performed in response to changes in customer's plumbing, or performed periodically

(annually or less frequently) where the Purveyor considers the customer's plumbing system to be complex or subject to frequent changes in water use. The cost of the re-survey shall be borne by the customer.

9) Residential customer shall agree to complete and submit to the Purveyor a "Water Use Questionnaire" within 30 days of a request by the Purveyor, for the purpose of surveying the health hazard posed by the customer's plumbing system on the Purveyor's water system. Further, the residential customer agrees to provide within 30 days of a request by the Purveyor a cross connection control survey of the premises by a Purveyor approved and Department of Health certified Cross Connection Control Specialist (CCS).

10) The customer agrees to obtain the prior approval from the Purveyor for all changes in water use and any alterations or additions to the plumbing system; and shall comply with any additional requirements imposed by the Purveyor for cross connection control.

11) The customer agrees to immediately notify the Purveyor and the local health department of any backflow incident occurring within the premises, (i.e., entry into the potable water of any contaminant or pollutant) and shall cooperate fully with the Purveyor to determine the reason for the backflow incident.

12) The customer acknowledges the right of the Purveyor to discontinue water supply within 72 hours of giving notice, or a lesser period of time if required to protect the public health if;

- the customer fails to cooperate with the Purveyor in the survey of premises, or in the installation, maintenance, repair, inspection or testing of backflow prevention assemblies or air gaps required by the Purveyor; or
- it is necessary in the Purveyor's effort to contain a contaminant or pollutant that is detected in the customer's system.

13) The Purveyor may install a reduced pressure backflow assembly (RPBA) on the service pipe to provide premises isolation in lieu of discontinuing water service. The customer acknowledges the right of the Purveyor to recover all costs associated with the installation and subsequent maintenance and repair of the assembly, appurtenances and enclosure from the customer as fees and charges for water. The failure of the customer to pay these fees and charges may result in termination of service in accordance with the Purveyor's water billing policies.

14) The Purveyor shall require premise isolation for a customer that falls within any category for "Mandatory Premises Isolation" established by the Department of Health regulations (Table 9, found in WAC 246-290-490 (4)(b)).

15) The customer acknowledges his obligation to comply with the other cross connection control regulations having jurisdictions (e.g., plumbing code requirements) when;

- the Purveyor imposes mandatory premise isolation in compliance with Department of Health regulations; or
- the Purveyor agrees to the customer's voluntary premises isolation through the installation of a reduced pressure backflow assembly immediately downstream of the Purveyor's water meter.

16) Although the Purveyor's requirements for installation, testing and repair of backflow prevention assemblies may be limited to the approved backflow prevention assemblies used for premises isolation, the customer agrees to the other terms herein as a condition of allowing a direct connection to the Purveyor's service pipe.

17) The customer agrees to indemnify and hold harmless the Purveyor for all contamination of the customer's plumbing system or the Purveyor's distribution system that results from an unprotected or inadequately protected cross connection within the customer's premises. This indemnification shall pertain to all backflow conditions that may arise from the Purveyor's suspension of water supply or reduction of water pressure, recognizing that the air gap separation otherwise required would require the customer to provide adequate facilities to collect, store and pump water for his premises.

18) The customer agrees that, in the event legal action is required and commenced between the Purveyor and the customer to enforce the terms and conditions herein, the substantially prevailing party shall be entitled to reimbursement of all its costs and expenses including but not limited to reasonable attorney's fees as determined by the Court.

19) The customer acknowledges that the Purveyor's survey of a customer's premises is for the sole purpose of establishing the Purveyor's minimum requirements for the protection of the Purveyor's water system, commensurate with the Purveyor's assessment of the degree of hazard.

It shall not be assumed by the customer, or any regulatory agency, that the Purveyor's water use survey, requirements for the installation of backflow prevention assemblies, lack of requirements for the installation of backflow prevention assemblies, or other actions by Purveyor personnel constitutes an approval of the customer's plumbing system, or an assurance to the customer of the absence of cross connections therein.

20) The customer acknowledges the right of the Purveyor, in keeping with changes to State regulations, industry standards, or the Purveyor's risk management policies, to impose retroactive requirements for additional cross connection control measures.

21) The Purveyor shall record the customer's agreement to the above terms for service on an "Application for Water Service", "Application for Change of Water Service" or other such form prepared by the Purveyor and signed by the customer.

14.05.050 Implementation of the Cross Connection Control Program.

1) The Purveyor shall engage the services of a Department of Health certified cross-connection control specialist (CCS) to implement and be in responsible charge of the City of Buckley Water System's cross-connection control program.

2) The Purveyor, under the direction of the Purveyor's CCS, shall prepare written cross-connection control operating policies for the day to day operation of the Purveyors' cross-connection control program in order to implement the requirements of this ordinance. The operating policies shall be consistent with this ordinance and shall comply with the requirements of Chapter 246-290 WAC (Group A Drinking Water Regulations).

3) The Purveyor shall use the following publications as references and technical aids in the development and implementation of the cross-connection control program:

- a) *"Cross Connection Control, Accepted Procedures and Practice Manual"*, Seventh Edition, (2012) published by the Pacific Northwest Section, American Water Works Association, or latest edition thereof.

- b) "Manual of Cross-Connection Control", Ninth Edition, December 1993, published by the Foundation for Cross-Connection Control and Hydraulic Research, University of Southern California, or latest edition thereof.
- 4) The Purveyor shall incorporate the written cross-connection control program into the Water System Plan and shall submit the program for approval by the Department of Health when requested.
- 5) The Purveyor, in consultation with the Purveyor's CCS, shall have the authority to make reasonable decisions related to cross-connections in cases and situations not provided for in the ordinance or written cross-connection control operating policies.
- 6) The Purveyor, under the direction of the Purveyor's CCS, shall prepare the written cross-connection control program. The written program shall be a description of the cross-connection control program and be included in the water system plan as required under WAC 246-290-100.

Section 3: Severability.

If any provision in this ordinance, or in the written cross-connection control program is found to be invalid or ineffective and/or less stringent than or inconsistent with the Drinking Water Regulations (Chapter 246-290 WAC), or other State statutes or rules, the State statute, rule, or regulation shall apply.

Section 4: Effective.

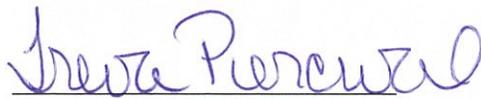
This Ordinance shall be in full force and effect five days from and after its passage, approval and publication as provided by law.

APPROVED by the Buckley City Council this 25th day of June 2019.



Pat Johnson, Mayor

ATTEST:



Treva Percival, City Clerk

APPROVED AS TO FORM:



Phil Olbrechts, City Attorney

Published: July 3, 2019
Effective: July 8, 2019