



WEST SOUND UTILITY DISTRICT
CROSS CONNECTION CONTROL PROGRAM

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1-01 DEFINITIONS

Except where specifically designated herein, all words used in this document shall carry their customary meanings. Words used in the present tense include the future and plural words include the singular. The word "shall" is always mandatory, and the word "may" denotes a use of discretion in making a decision. Any definition not found in this section will take its meaning from the WAC (246-290-490), or as amended.

- (1) "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 nonpressure-receiving vessel. To be an "approved air gap," the separation must be at least twice the diameter of the inlet piping (supply pipe) measured vertically, and never be less than 1 inch.
- (2) "Approved backflow prevention assembly" or "backflow assembly" or "assembly", means an assembly to counteract backpressures or prevent back-siphonage. This assembly must appear on the list of approved assemblies issued by the Washington State Department of Health.
- (3) "Auxiliary supply" means any water source or system other than West Sound Utility District's water. This includes, but is not limited to, irrigation systems, ponds, streams, rivers or wells.
- (4) "Backflow" means the flow of water or other liquids, gases, or solids from any source back into the distribution system. The flow of water in the opposite direction of its intended flow.
- (5) "Backflow Assembly Tester" (BAT) or "Tester" means a person holding a valid BAT certificate issued in accordance with the Washington Administrative Code 246-290-490 and the RCW 18.106, 18.27, and 70.119.
- (6) "Backpressure" means water pressure, which exceeds the operating pressure of the public potable water supply.
- (7) "Backsiphonage" shall mean backflow due to a negative or reduced pressure within the public potable water supply.
- (8) "Closed System" means any water system or portion of a water system in which water is transferred to a higher-pressure zone closed to atmosphere.
- (9) "Contamination" means the entry into or presence in a public water supply system of any substance, which may be harmful to health and/or quality of the water.
- (10) "Cross connection" means any physical arrangement where a public water system is connected, directly or indirectly (actual or potential), with any other non-drinkable water system or auxiliary system, sewer, drain conduit, swimming pool, storage reservoir, plumbing fixture, swamp coolers, or any other device, which contains, or may contain, contaminated water, sewage, or other liquid of unknown or unsafe quality, which may be capable of imparting contamination to the public water system as a result of backflow.

Bypass arrangements, jumper connections, removable sections, swivel or changeover devices, or other temporary or permanent devices through which, or because of which, backflow may occur are considered to be cross connections.

- (11) "Cross Connection Specialist" or "CCS" shall mean a person holding a valid CCS certificate issued in accordance with the Washington Administrative Code.
- (12) "Degree of hazard" means the low or high hazard classification that shall be attached to all actual or potential cross connections.
- (13) "District" shall mean West Sound Utility District.
- (14) "DOH" means Washington Department of Health.
- (15) "Double check detector assembly" or "DCDA" means an approved assembly consisting of two approved double check valve assemblies set in parallel and equipped with a meter on the bypass line to detect small amounts of water leakage or use. This unit must be purchased as a complete assembly.
- (16) "Double check valve backflow prevention assembly" or "double check assembly" or "double check" or "DCVA" or "DC" means an assembly, which consists of two independently operating check valves, which are spring-loaded or weighted. The assembly comes complete with a shut-off valve on each side of the checks, as well as test cocks to test the checks for tightness.
- (17) "General Manager" shall mean the person in charge of West Sound Utility District or his/her designee.
- (18) "Health hazard" means an actual or potential threat of contamination of a physical, toxic, or biological nature that would be a danger to health.
- (19) "High hazard" means the classification assigned to an actual or potential cross connection that potentially could allow a substance that may cause illness or death to backflow into the potable water supply.
- (20) "In-premise protection" means a method of protecting the health of consumers served by the customer's plumbing system (i.e. located within the property lines of the customer's premise) by the installation of an approved air gap or backflow prevention assembly at the point of hazard.
- (21) "Inspector" or "Surveyor" shall mean a person holding a valid CCS certificate issued in accordance with the Washington Administrative Code, who meets the stipulations in this Cross Connection Control Program.
- (22) "Local administrative authority" means the local official, board, department, or agency authorized to administer and enforce the provisions of the applicable Plumbing Code as adopted by Kitsap County.

- (23) "Low hazard" means the classification assigned to an actual or potential cross connection that potentially could allow a substance that may be objectionable, but not hazardous to one's health, to backflow into the potable water supply.
- (24) "Mobile Unit" shall mean units connecting to the water system through a hydrant, hose, bib, or other appurtenance of a permanent nature that is part of the District water system or a permanent water service to a premise. Examples can include but are not limited to the following: water trucks, pesticide applicator vehicles, chemical mixing units or tanks, waste hauling trucks or units, sewer cleaning equipment, carpet or steam cleaning equipment other than homeowner use, rock quarry or asphalt/concrete batch plants, or any other mobile equipment or vessel. Uses that are excluded from this definition are recreational vehicles at assigned sites or parked in accordance with District regulations, and homeowner devices that are used by the property owner in accordance with other provisions of this, or other, District Cross Connection Control Programs pertaining to provision of water service to a premise.
- (25) "Person" means a natural person (individual), corporation, company, association, partnership, firm, limited liability company, joint venture company or association, and other similar entity.
- (26) "Plumbing hazard," means an internal or plumbing-type cross connection in a consumer's potable water system that may be either a pollutional or a contamination-type hazard. This includes, but is not limited to cross connections to toilets, sinks, lavatories, wash trays, washing machines, and lawn sprinkling systems. Plumbing-type cross connections can be located in all types of structures including but not limited to homes, apartment houses, hotels and commercial or industrial establishments.
- (27) "Point-of-use isolation" shall mean the same as "In-premise protection".
- (28) "Pollutional hazard" means an actual or potential threat to the physical properties of the water system or the potability of the public or the consumer's potable water system but, which would not constitute a health or system hazard, as defined. The maximum degree of intensity of pollution to which the potable water system could be degraded under this definition would cause a nuisance or be aesthetically objectionable or could cause minor damage to the system or its appurtenances.
- (29) "Potable water supply" means any system of water supply intended or used for human consumption or other domestic use.
- (30) "Premises" means any piece of property to which water is provided including, but not limited to, all improvements, mobile structures and structures located on it.
- (31) "Premises isolation" means a method of protecting a public water system by installation of an approved air gap or approved backflow prevention assembly at the point of service (end of purveyor's service pipe) to separate the customer's plumbing system from the purveyor's distribution system.
- (32) "Reduced pressure detector assembly" or "RPDA" shall mean an approved assembly

consisting of two approved reduced pressure backflow assemblies, set in parallel, equipped with a meter on the bypass line to detect small amounts of water leakage or use. This unit must be purchased as a complete assembly.

- (33) "Reduced pressure principle backflow prevention assembly" or "reduced pressure principle assembly" or "RP assembly" shall mean an assembly containing two independently acting approved check valves together with a hydraulically-operated, mechanically independent pressure differential relief valve located between the check valves and at the same time below the first check valve. The assembly shall include properly located test cocks and tightly closing shut-off valves at each end of the assembly.
- (34) "System hazard" means an actual or potential threat of severe danger to the physical properties of the public or consumer's potable water system or of a pollution or contamination, which would have a detrimental effect on the quality of the potable water in the system.
- (35) "Thermal expansion" means the pressure created in piping, when water is heated.
- (36) "Used water" means any water supplied by the District to a customer's property after it has passed through the service connection and is no longer under the control of the District water system.
- (37) "WAC" means the most recent edition of the Washington Administrative Code.
- (38) "Water System" shall mean West Sound Utility District's public water system.

1-02 PURPOSE

The purpose of this Cross Connection Control Program is to protect the public water system from contamination or pollution due to any existing or potential cross connections as defined in WAC 246-290-010 (63), or as amended and this Cross Connection Control Program. The purveyor shall ensure that cross connections between the distribution system and a customer's premises are eliminated or protected against by the installation of an approved air gap or approved backflow prevention assembly.

1-03 CROSS CONNECTIONS REGULATED

- (1) No cross connections shall be created, installed, used or maintained within the territory served by the District, except in accordance with this Cross Connection Control Program.
- (2) The CCS for the District shall determine if any actual or potential cross connection exists. If found necessary, an assembly commensurate with the degree of hazard will be required to be installed at the service connection.
- (3) The owner, occupant or person in control of the property is responsible for all cross connection control within the premises.
- (4) The use of any type of attachment connected to the plumbing, including but not limited to

garden hose attachments are prohibited except in accordance with the plumbing code.

- (5) Any service connection within the District, which receives water from any other service including but not limited to other water systems or auxiliary supplies, must abide by the contents of this Cross Connection Control Program.

1-04 APPLICATION AND RESPONSIBILITIES

This Cross Connection Control Program applies throughout West Sound Utility District and to every premise and property served by the District. It applies to any premise, public or private, regardless of date of connection to the water. Every owner, occupant and/or person in control of any concerned premise is responsible for compliance with the terms and provisions contained herein.

1-05 BACKFLOW PREVENTION ASSEMBLY REQUIREMENTS

A CCS employed by or under contract with the District shall determine the type of backflow assembly to be installed within the area served by the District. All assemblies shall be installed at the service connection unless it is determined by the CCS that the assembly can be installed at some other point.

Backflow assemblies that are subject to freezing shall be installed with adequate freeze protection.

An assembly will be required, but not limited to each of the following circumstances:

- (1) The nature and extent of any activity on the premises, or the materials used in connection with any activity on the premises, or materials stored on the premises that, could contaminate or pollute the potable water supply.
- (2) Premises having any cross connections or potential cross connections as that term is defined in this Cross Connection Control Program and the WAC.
- (3) When an appropriate cross connection survey report form has not been filed with the District.
- (4) Internal cross connections are present that are not correctable.
- (5) Intricate plumbing arrangements or plumbing, which is potentially subject to frequent changes, are present that make it impractical to ascertain whether or not cross connections exist.
- (6) There is a repeated history of cross connections being established or re-established.
- (7) There is unduly restricted entry so that inspections for cross connections cannot be made with sufficient frequency to assure that cross connections do not exist.
- (8) Materials are being used such that, if backflow should occur, a health hazard could result.

- (9) Installation of an approved backflow prevention assembly is deemed to be necessary to accomplish the purpose of these regulations in the judgment of the CCS.
- (10) Any premise where an auxiliary water supply exists.
- (11) Any premise where reclaimed or reused water systems are installed.
- (12) New construction, except for single-family and duplex homes.
- (13) In the event a point-of-use assembly has not been tested or repaired as required by the WAC 246-290-490, or as amended, and this Cross Connection Control Program, a premises isolation assembly will be required.
- (14) On determination that additions or rearrangements have been made to the plumbing system without obtaining proper permits as required by the plumbing code, premise isolation may be required.
- (15) All high health hazard premises, which are defined in Table 9 of the WAC, section 246-290-490, or as amended, are required to have premises isolation by installing an approved air gap or reduced pressure principle assembly in accordance with this Cross Connection Control Program.

1-06 IRRIGATION SYSTEMS

The type of assembly to be installed on an irrigation system will be commensurate with the degree of hazard. This may include a DCVA, RP, or protection provided by the system manufacturer. Air vacuum breakers, pressure vacuum breakers and spill proof pressure vacuum breakers are not allowed.

1-07 FIRE SYSTEMS

An approved double check detector backflow prevention assembly ("DCDA") with bypass shall be the minimum protection on all new fire sprinkler systems using piping material that is not approved for potable water use, and/or that does not provide for periodic flow through during each twenty-four (24) hour period. A reduced pressure principle detector backflow prevention assembly ("RPDA") must be installed if any solution other than the potable water can be introduced into the sprinkler system.

Retrofitting to add or improve cross connection protection on existing older fire sprinkler systems will be required in each of the following circumstances:

- (1) Where improper maintenance of the sprinkler system has occurred;
- (2) Whenever there is a high hazard situation on the premise;
- (3) Wherever an CCS deems necessary due to poor maintenance or lack of testing of the system or existing backflow prevention device; and/or

(4) Whenever the existing system no longer meets WAC requirements. All fire line systems, which are on a designated lateral, shall install the assembly on the lateral. The assembly must be installed in accordance with this Cross Connection Control Program.

Residential fire sprinklers that have a flow-through connection to the homes potable water system are not required to have a backflow assembly.

1-08 TEMPORARY CONNECTIONS

All temporary connections will be required to have cross connection protection. The type of protection required will be determined on a case-by-case basis by the District's CCS.

1-09 MOBILE UNITS

Any mobile unit or apparatus, as defined in Section 1 of this Cross Connection Control Program, which uses the water from any premise within the District's water system shall first obtain authorization from the District and be inspected annually by the CCS to assure appropriate backflow protection is installed. Backflow assemblies installed on mobile units must also be tested annually by a certified backflow assembly tester.

1-10 RIGHT-OF-WAY ENCROACHMENT

- (1) No person shall install or maintain a backflow prevention assembly upon or within any public right-of-way except as provided in this Section.
- (2) The District reserves the right to have an assembly installed in the right-of-way.
- (3) A backflow prevention assembly required by the District may be installed upon or within any public right-of-way only if the owner proves to the District that there is no other feasible location for installing the assembly, and installing it in the right-of-way will not interfere with traffic or utilities. The District retains the right to approve the location, height, depth, enclosure, and other requisites of the assembly prior to its installation.
- (4) Unless the District is doing the installation, the developer or property owner is responsible for obtaining the required permits required by Kitsap County or City of Port Orchard to perform work in the right-of-way.
- (5) The DCVA assembly shall be installed below or flush with the surrounding grade except when it is not practicable to install it in this manner. The RP assembly shall not be installed below ground. Any assembly or portion of an assembly, which extends above ground, shall be located no closer than eighteen (18) inches to the face of the curb.
- (6) A property owner shall, at the request of the District and at owner's expense, relocate a back-flow prevention assembly, which encroaches upon any Public right-of-way, when such relocation is necessary for street/utility construction or repairs for purposes of public safety.

1-11 PLUMBING CODE

As a condition of water service, customers shall install, maintain and operate their piping and plumbing systems in accordance with the applicable Plumbing Code, as adopted by the Plumbing Official of Kitsap County.

1-12 ACCESS TO PREMISES

Authorized employees of the District, with proper identification, shall have access during the normal business hours of the District to all parts of a premise and within the building to which water is supplied. If any water user refuses access to a premise or to the interior of a structure during these hours for inspection by a cross connection specialist appointed by the District, a reduced pressure principle assembly shall be installed at the service connection to that premise.

1-13 TESTING AND REPAIRS

Backflow prevention assemblies shall be tested in accordance with the requirements set out in the most recent edition of the WAC 246-290-490 and this Cross Connection Control Program. Assembly testing must be performed by a state certified backflow assembly tester. Assemblies must be tested annually, upon installation, after being repaired, moved, and/or after a backflow incident.

1-14 RESPONSIBILITIES OF BACKFLOW PREVENTION ASSEMBLY TESTERS

Persons certified as backflow prevention assembly testers shall meet the following requirements:

- (1) All backflow assembly testers operating within the District shall be certified in accordance with all applicable state and federal regulations.
- (2) Hold a WAC approved backflow prevention assembly certification.
- (3) Submit a District-approved written report on each backflow assembly inspection within the District water system within ten (10) calendar days of the inspection.

1-15 MAINTENANCE OF ASSEMBLIES

Backflow prevention assemblies shall be maintained in accordance with the requirements set out in the WAC, plumbing code, and this Cross Connection Control Program.

All maintenance of assemblies will be reported to the District within ten (10) calendar days on a District-approved report form, submitted by the BAT.

1-16 INSTALLATION REQUIREMENTS AND SPECIFICATIONS

Backflow prevention assemblies shall be installed in accordance with the requirements set out in the WAC and plumbing code. RP assemblies shall not be installed below ground.

At any service connection where a premise isolation assembly is required to be installed and the District authorizes the installation at any point other than at the service connection. It is illegal to intertie any piping between the service connection and the assembly.

1-17 THERMAL EXPANSION

If a closed system has been created by the installation of a backflow prevention assembly, it is the responsibility of the property owner to eliminate the possibility of thermal expansion.

1-18 PRESSURE LOSS

Any reduction in water pressure caused by the installation of a backflow assembly is not the responsibility of the District. The District will give reasonable assistance to the owner regarding information on adequate sizing of assemblies and proper plumbing practices to provide for required pressure and flows for fire protection.

1-19 PARALLEL INSTALLATION

Premises where non-interruption of water supply is critical shall have installed two (2) assemblies of the same type in parallel. They shall be sized in such a manner that either assembly will provide the minimum water requirements while the two (2) together will provide the maximum water requirements.

1-20 NEW CONSTRUCTION

- (1) The District may require cross connection protection on any new non-residential construction, such as multi-family, commercial, industrial, and governmental buildings. The type of the assembly will be commensurate with the degree of hazard, as determined by an Inspector.
- (2) When a building is constructed and the end use of the building is not determined or could change, a reduced pressure principle backflow prevention assembly shall be installed at the service connection to provide protection of the public water supply in the event of the most hazardous use of the building.
- (3) The minimum protection on all commercial and industrial construction will be a reduced pressure principle backflow prevention assembly. The type of assembly will be determined by the District's CCS.

1-21 PRIVATELY OWNED WATER MAINS

- (1) All privately owned water mains shall have a minimum protection of a reduced pressure principle backflow assembly. The assembly shall be installed at the point where the District ownership ends and private ownership begins.

1-22 RESIDENTIAL AND RENTAL PROPERTIES

All residential and rental properties shall comply with this Cross Connection Control Program.

The property owner is responsible for the installation, testing, and repair of all backflow assemblies on their property.

1-23 RETROFITTING

Retrofitting shall be required on all service connections where an actual or potential cross connection exists, and wherever else the District deems retrofitting is necessary. Examples of required retrofitting would include, but not be limited to, replacing outdated equipment; replacing damaged equipment; and replacing equipment that does not have a record of consistent satisfactory annual inspections.

1-24 COSTS OF COMPLIANCE

All costs associated with compliance of this Cross Connection Control Program are the financial responsibility of the property owner. This includes, but is not limited to, the purchase, installation, inspections, testing, replacement, maintenance, parts and repairs of the backflow assembly.

1-25 TERMINATION OF SERVICE

Failure on the part of any property owner, their renter, agent or personal representative to discontinue the use of all cross connections or to physically separate cross connections in accordance with this Cross Connection Control Program is sufficient cause for the discontinuance of public water service to the premise.

The District standard notification process is (1) Sending a reminder letter; (2) sending a warning letter if the reminder letter is not responded to; and then (3) notifying the property owner the water will be discontinued. The District reserves the right to implement immediate discontinuation of water service or to otherwise modify its standard notification process, if the District deems it is necessary.

1-26 EMERGENCY SUSPENSION OF SERVICE

The General Manager may, without prior notice, suspend water service to any premises when such suspension is necessary to stop the eminent threat of any actual or potential cross connection as defined in this Cross Connection Control Program.

1-27 NON-EMERGENCY SUSPENSION OF SERVICE

The General Manager may suspend, with 24 hours notice, the water supply to any premise where the conditions of this Cross Connection Control Program have been violated.

1-28 PROVISIONS AS TO AVAILABILITY OF MATERIALS

The District shall maintain one copy of WAC 246-290-490, and one copy of the most recent edition of the Pacific Northwest Section American Water Works Association *Cross Connection Control Manual, Accepted Procedure and Practice*, for public use and inspection during regular District business hours.