



WEST VIRGINIA SECRETARY OF STATE

MAC WARNER

ADMINISTRATIVE LAW DIVISION

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Office of West Virginia  
Secretary Of State

## NOTICE OF RULE MODIFICATION OF A PROPOSED RULE

AGENCY: Health

RULE TYPE: Legislative

TITLE-SERIES: 64-15

RULE NAME: CROSS-CONNECTION CONTROL AND  
BACKFLOW PREVENTION

CITE AUTHORITY: 16-1-4 and 16-1-9a

The above proposed Legislative rules, following review by the Legislative Rule Making Review Committee, is hereby modified as a result of review and comment by the Legislative Rule Making Review Committee. The attached modifications are filed with the Secretary of State.

**BY CHOOSING 'YES', I ATTEST THAT THE PREVIOUS STATEMENT IS TRUE AND CORRECT.**

Yes

**April L Robertson -- By my signature, I certify that I am the person authorized to file legislative rules, in accordance with West Virginia Code §29A-3-11 and §39A-3-2.**

TITLE 64  
LEGISLATIVE RULE  
DEPARTMENT OF HEALTH  
BUREAU FOR PUBLIC HEALTH

SERIES 15  
CROSS-CONNECTION CONTROL AND BACKFLOW PREVENTION

**§64-15-1. General.**

1.1. Scope. -- This legislative rule governs cross-connection control and backflow prevention for public water systems. This rule should be read in conjunction with W. Va. Code §16-1-9, §16-1-9a, §16-1-17, and §16-1-18. ~~The W. Va. Code is available in public libraries and on the Legislature's web page: <http://www.legis.state.wv.us/>.~~

1.2. Authority. -- W. Va. Code §16-1-4, ~~16-1-9~~ and §16-1-9a.

1.3. Filing Date. -- ~~April 29, 2004.~~

1.4. Effective Date. -- ~~March 13, 2004.~~

1.5. ~~Repeal of former rule. -- This legislative rule repeals and replaces the Department of Health rule, "Cross-Connection and Backflow Prevention," 64CSR15, effective April 1, 1976. Sunset Provision. -- This rule shall terminate and have no further force or effect on August 1, 2029.~~

**§64-15-2. Application and Enforcement.**

2.1. Application. -- This legislative rule applies to any owner, operator, or customer of a public water system.

2.2. Enforcement. -- This rule is enforced by the ~~Secretary of the Department of Health and Human Resources~~ Commissioner of the Bureau for Public Health.

**§64-15-3. Definitions.**

3.1. Air Gap Separation. -- A physical separation between the free-flowing discharge end of a water supply pipe and the flood level rim of a vessel open to the atmosphere having a minimum unobstructed vertical distance between the supply pipe equal to twice its inside diameter or one inch, whichever is greater.

3.2. Approved. -- Accepted by the Commissioner as being suitable for the proposed use.

3.3. Approved Backflow Prevention Assembly. -- A double check valve assembly, reduced pressure backflow prevention assembly, other devices or methods approved by the Commissioner for preventing backflow.

3.4. Auxiliary Water Supply. -- Any water source or system available within the building or premises other than the community public water system including, but not limited to, individual wells, springs, and cisterns. A private water storage tank supplied by a community public water system is considered an auxiliary water supply unless its design meets the most current minimum design standards required for storage tanks for community public water systems, and the water contained in them is potable.

3.5. Backflow. -- ~~The unintentional reversal of the normal direction of flow within a piping system~~  
The flow of water or other liquids, mixtures, or substances into the distributing pipes of a potable supply of water from any source or sources other than its intended source. Backsiphonage is one type of backflow.

3.6. Commissioner. -- The Commissioner of the Bureau for Public Health or his or her designee.

3.7. Cross-Connection. -- ~~Any physical connection or other arrangement through which a backflow of liquids, gases, or other substances into a public water system may occur~~  
Any physical connection or arrangement between two otherwise separate systems or sources, one of which contains potable water and the other either water, steam, gas, or chemical of unknown or questionable safety whereby there may be a flow from one system or source to the other, the direction of flow depending on the pressure differential between the two systems.

3.8. Degree of Hazard. -- The potential risk to health and potential adverse effects upon the public water system based on the probability of backflow occurring and the type or nature of the contaminant.

3.9. Double Check Valve Assembly. -- An arrangement or device consisting of two single, independently acting watertight check valves with connections for testing the water-tightness of each check valve.

3.10. Flood Level Rim. -- The edge of the vessel or receptacle from which water overflows.

3.11. Health Hazard. -- Any condition, device, or practice that in the judgment of the Commissioner creates or may create a danger to the health and well-being of the water customer.

3.12. Interchangeable Connection. -- An arrangement or device that allows the alternate but not simultaneous use of two sources of water.

3.13. Low-Suction Pressure Cut-Off Controller. -- An arrangement or device designed to shut off a pump when the pressure at the suction side of the pump falls below a specified level.

3.14. Person. -- An individual, partnership, association, syndicate, company, firm, trust, corporation, government corporation, institution, department, division, bureau, agency, or any entity recognized by law.

3.15. Potable Water. -- Water free from impurities in amounts sufficient to cause disease or harmful physiological effects, with bacteriological, chemical, physical, and radiological quality conforming to applicable regulations and standards of the bureau for public health.

3.16. Public Water System (PWS). -- ~~A public water system is any~~ Any water supply or system that regularly supplies or offers to supply water for human consumption through pipes or other constructed conveyances, if serving at least an average of 25 individuals per day for at least 60 days per year, or which has at least 15 service connections, and shall include: (1) Any collection, treatment, storage, and distribution facilities under the control of the owner or operator of the system and that are used primarily in connection with the system; and (2) Any collection or pretreatment storage facilities not under ~~such the control which of the owner or operator of the PWS that~~ are used primarily in connection with the system. A ~~public water system~~ PWS does not include a system ~~which that~~ meets all of the following conditions: (1) ~~Which consists~~ Consists only of distribution and storage facilities (and does not have any collection and treatment facilities); (2) ~~Which obtains~~ Obtains all of its water from, but is not owned or operated by, a ~~public water system~~ PWS that otherwise meets the definition; (3) ~~Which does~~ Does not sell water to any person; and (4) ~~Which is~~ Is not a carrier conveying passengers in interstate commerce.

3.17. Reduced Pressure Backflow Prevention Assembly. -- A device containing a minimum of two

independently acting check valves, an automatically operated pressure differential relief valve located between the two check valves and watertight valves located at each end of the assembly, with connections for testing the operation of the device.

3.18. Severe Health Hazard. -- A hazard to the health of the user that could reasonably be expected to result in significant morbidity or death.

3.19. Unprotected Cross-Connection -- Any cross-connection with no approved backflow prevention assembly, air gap separation, double check valve assembly, or reduced pressure backflow prevention assembly installed.

3.20. Water Customer. -- The owner or person in charge of any building or premises supplied by or in any manner connected to a community public water system.

3.21. Water Service Line. -- A pipe or water line, with or without a meter and valves, through which the water customer conveys the water from the public water system to the initial point of use.

**§64-15-4. Cross-Connections.**

4.1. No person shall install or maintain an unprotected cross-connection in a public water system.

4.2. The public water system shall not install a water service connection to any premises where a violation of subsection 4.1 of this rule exists.

4.3. After giving written notice to the water customer with an opportunity for administrative due process, the public water system shall discontinue water service to any premises:

~~4.3.a.~~ 4.3.1. Where an unprotected cross-connection or unauthorized connection exists;

~~4.3.b.~~ 4.3.2. Where a required backflow prevention method has been removed or bypassed; or

~~4.3.c.~~ 4.3.3. When the public water system is denied entry to the water customer's premises to confirm compliance with this rule.

4.4. When the public water system finds deficiencies in a water customer's premises, as listed in subsection 4.3 of this section, the public water system shall;

~~4.4.a.~~ 4.4.1. Ensure that the public water system ceases water service to those premises until the deficiencies are corrected; and

~~4.4.b.~~ 4.4.2. Notifies the owner, person occupying, or in charge of the premises of the findings and orders that the cross-connection be removed or that an approved backflow prevention method be installed prior to water service resuming.

**§64-15-5. When Protection Is Required.**

~~5.1. Each water service line requires installation of an approved backflow prevention method when the public water system determines that either an actual or potential health hazard, or other degradation of the public water system, including the following, exists:~~

~~5.1.a. On premises that have unprotected internal cross-connections that the public water system~~

~~determines are not correctable or that have intricate plumbing arrangements that make it impractical to determine whether unprotected cross-connections exist;~~

~~5.1.b. On premises where it is impossible or impractical to make a cross-connection survey because of security requirements or other prohibitions or restrictions;~~

~~5.1.c. On premises that have a repeated history of unprotected cross-connections; and~~

~~5.1.d. On others specified by the public water system.~~

~~5.2. 5.1. Each water service line, including but not limited to, to the following types of facilities requires installation of an approved backflow prevention method, unless investigation by the public water system a risk assessment conducted by the Commissioner, or his or her designee, determines that no actual or potential health hazard, or other degradation of the public water system exists:~~

~~5.2.a. 5.1.1. Hospitals, mortuaries, clinics, nursing homes, and animal hospitals; Medical facilities, funeral homes, or mortuaries;~~

~~5.2.b. 5.1.2. Laboratories; Restaurants and food processing facilities;~~

~~5.2.c. 5.1.3. Sewage treatment plants, sewage pumping stations, and storm water pumping stations; Dry cleaners, beauty and nail salons, and car washes;~~

~~5.2.d. 5.1.4. Chemical plants, dyeing plants, metal plating industries, and tanneries; Multi-tenant retail spaces, commercial buildings three stories or taller, commercial spaces with dedicated fire service lines or sprinkler systems, and industrial facilities;~~

~~5.2.e. 5.1.5. Petroleum processing or storage plants; Salvage and wastewater facilities;~~

~~5.2.f. 5.1.6. Slaughterhouses, poultry processing plants, and food or beverage processing plants; Recycling facilities cross-connected to a public water supply;~~

~~5.2.g. 5.1.7. Piers, docks, and waterfront facilities; Correctional facilities;~~

~~5.2.h. 5.1.8. Photo development plants; Any facility using chemicals harmful to human health cross-connected to a public water supply;~~

~~5.2.i. 5.1.9. Car washes and laundromats; Water supply systems cross-connected to a sprinkler or fire suppression system;~~

~~5.2.j. 5.1.10. Public swimming pools; Water supply systems cross-connected to an active auxiliary water source or water well;~~

~~5.2.k. 5.1.11. Farms when they use water for reasons other than household purposes; and Water supply systems cross-connected to a fluid storage tank, tub, pool, or cistern 85 gallons or larger with a public water inlet that can be below the water level;~~

~~5.2.l. 5.1.12. Other facilities specified by the community public water system. Water supply systems cross-connected to a boiler system; and~~

~~5.1.13. Water supply systems cross-connected with any land irrigation system.~~

**§64-15-6. Type of Protection and Circumstances When Protection Is Required.**

6.1. The type of protection required under this rule depends on the degree of hazard that exists or may exist, as determined by the ~~public water system~~ Commissioner, or his or her designee, and shall involve the installation of ~~either~~:

~~6.1.a.~~ 6.1.1. An approved air gap separation when the ~~public water system~~ Commissioner, or his or her designee, determines that contamination with substances could cause a severe health hazard;

~~6.1.b.~~ 6.1.2. An approved air gap separation or approved reduced pressure principle backflow prevention assembly when the ~~public water system~~ Commissioner, or his or her designee, determines that contamination with substances could cause a health hazard; or

~~6.1.e.~~ 6.1.3. An approved double-check valve assembly, approved reduced pressure ~~principal~~ principle backflow prevention assembly, or an approved air gap separation when the ~~public water system~~ Commissioner, or his or her designee, determines that contamination with substances could degrade the water quality of the public water system.

6.2. When the ~~public water system~~ Commissioner, or his or her designee, does not approve any point of connection between a public water system and an auxiliary water supply, the water customer shall install an approved air gap separation or an approved interchangeable connection with a reduced backflow prevention assembly.

6.3. When a water customer installs a booster pump on the premises served by a public water system, or on the service line to the premises, the customer shall install a check valve on the discharge and a low-suction pressure cut-off controller designed to shut off the booster pump when the pressure in the service line on the suction side of the pump drops to 20 pounds per square inch gauge or less.

6.4. On premises where backflow prevention assemblies are required by this rule, and the public interest requires continuous uninterrupted service, the water customer shall install two approved backflow prevention assemblies in parallel and shall properly valve them to permit continuous operation, or service to the premises shall be from two separate water service lines each protected by an approved backflow prevention assembly.

6.5. Water customers that are open to the public shall be required to install internal backflow prevention methods as part of the public water system's approved backflow prevention program in section 8 of this rule.

**§64-15-7. Backflow Prevention Assemblies.**

7.1. The ~~public water system~~ Commissioner, or his or her designee, shall approve installation of an approved backflow prevention assembly at a location and in a manner that best facilitates testing and servicing in accordance with the approved cross connection and backflow prevention program in section 8.2. of this rule.

7.2. The water customer shall purchase, install, maintain, and test any backflow prevention assembly according to this rule.

7.3. When any approved backflow prevention assembly is found to be defective, the water customer shall immediately notify the public water system of any defect and within 10 days shall repair, overhaul, replace, and test the assembly again at the water customer's expense.

**§64-15-8. Plans, Surveys, Investigations, and Testing.**

8.1. The water customer shall provide the public water system with all drawings, plans, specifications, and other data related to the backflow prevention assemblies so that the public water system can ensure the water customer's compliance with this rule.

8.2. The public water system shall establish a cross-connection and backflow prevention program approved by the Commissioner.

8.3. The water customer shall furnish information on water use practices for facilities within the water customer's premises, including plumbing diagrams, drawings, or plans, at the request of the public water system.

8.4. The water customer on any premises that under this rule requires the installation of backflow prevention assemblies is responsible for getting the assemblies inspected and for the cost of the required inspections.

~~8.4.a.~~ 8.4.1. The water customer shall ensure that a person certified by the Commissioner as a certified backflow assembly tester inspects and tests the backflow prevention assemblies upon installation and at least every 12 months after that; and

~~8.4.b.~~ 8.4.2. The certified backflow assembly tester shall provide records of all inspections and tests to the public water system within 15 days of the inspection or test.

8.5. The public water system shall maintain records of all inspections, surveys, tests, and corrective actions taken for a period of at least two years and provide the information to the Commissioner upon request.

8.6. The public water system shall request permission from a potential water customer to inspect the premises and dwellings formerly served by individual wells when the public water system believes unprotected cross-connections may exist. If the potential water customer does not allow the inspection, the refusal will be grounds not to supply water service.

8.7. No provisions of this rule shall relieve the water customer of the responsibility for conducting surveys of water use practices on his or her premises to determine whether there are actual or potential unprotected cross-connections.

8.8. Requirements of this rule shall be in accordance with all applicable guidelines contained in the West Virginia Bureau for Public Health Manual, EW-114, "Cross-Connection and Backflow Prevention Manual," 2002.

**§64-15-9. Enforcement.**

9.1. This rule is enforced under W. Va. Code §16-1-6, §16-1-9, §16-1-9a, §16-1-17, §16-1-18, and other applicable code provisions.

**§64-15-10. Penalties.**

10.1. Any person who violates any provision of this rule or orders issued under this rule is subject to injunction, criminal prosecution, and criminal, civil, and administrative fines, all as provided in W. Va.

**64CSR15**

Code §16-1-9, §16-1-9a, §16-1-17, and §16-1-18.

**§64-15-11. Administrative Due Process.**

11.1. Those persons adversely affected by the enforcement of this rule may request a contested case hearing in accordance with the ~~Division of Health~~ Bureau for Public Health procedural rule, Rules and of Procedure for Contested Case Hearings and Declaratory Rules Rulings, 64 CSR 1.