

CHAPTER 4 WATER

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400.2 Ferrule Connection Pipe

Except as otherwise provided in this Section, Ferrule Type Connection Pipe (2 inches and smaller) from the ferrule to the curb-stop shall be installed, repaired or replaced by or under the direction of a licensed master plumber and shall:

(a) be copper tubing, ASTM Spec. B-88, type K in soft temper with approved red brass fittings; or

(b) be polyethylene service pipe, ASTM D 3350, as required, Water Department Standard Spec. W-21:

(1) When the minimum distance from the curb-stop to the building line is eight (8) feet six (6) inches; or

(2) When the Department of Licenses and Inspections permits the use of polyethylene distributing pipe from the curb-stop to the building line;

(c) be at least five (5) feet in length with block supports where required, and include provision for expansion in accordance with Department standards; and

(d) include a Department approved curb-stop and box located:

(1) Eighteen (18) inches behind the face of adjacent curb when the water main is located in the cartway or in the opposite footway; or

(2) As directed by the Water Department when the water main is located in the abutting footway.

Exception: For National Fire Protection Association (NFPA)13 and 13R residential fire suppression systems, ferrule connection pipe may be installed, repaired, or replaced by a registered fire suppression contractor.

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403.0 BACKFLOW PROTECTION

In order to protect the public water supply from potential cross connection and backflow hazards from connection to the City main, including both domestic and fire service connections within a property and connections to City fire hydrants, backflow protection technicians, property owners and water users shall comply with the requirements of Section 403.1 and 403.2 of these regulations.

403.1 Backflow Protection Assembly Requirements

(a) With the exception of single-family residences and multi-family buildings with four (4) units or fewer, the requirements of this regulation shall generally apply to all water-using structures and systems, regardless of their sizes, plumbing types and water usage patterns. Where the Water Department has determined that backflow prevention measures are needed at any specific single-family residence or multi-family building with four (4) units or fewer in order to protect the public water supply, this regulation shall also apply to that building. Backflow prevention measures include but are not limited to the following requirements.

(1) Any domestic and fire protection service line, including each line of a multiple service line, to any property, shall be equipped with an approved backflow prevention device or an approved air-gap separation on each line. Backflow

prevention assemblies or air-gap separations must be installed where designated by the Water Department at the sole expense of the property owner. Backflow prevention assemblies or air-gap separations must be from an approved Water Department list or otherwise approved by the Water Department. Installers must refer to the latest edition of the *Water Department Cross Connection Control Manual*, for installation requirements and listings of approved backflow prevention assemblies. This manual is available upon request from the Water Department or the Department of Licenses and Inspection.

(2) All other connections to the City water main, including standpipes leading to elevated tanks, temporary ferrules and hose connections, shall be equipped with approved backflow prevention assemblies.

(3) All required backflow prevention or air-gap separation assemblies shall be tested at least once every twelve (12) months. Any newly installed backflow prevention or air-gap separation device shall be tested prior to the initiation of service. The property owner shall be responsible for arranging for testing, for all costs of testing and related maintenance. After testing of a backflow prevention assembly, the results must be signed by a person on the respective registry of Backflow Prevention Technicians for Domestic Systems or the registry of Backflow Prevention Technicians for Fire Systems and sent to the Industrial Waste & Backflow Compliance Unit of the Water Department within three (3) days of completion of work.

(4) Property owners shall be responsible for:
(i) maintaining records of such tests and related maintenance for a period of three (3) years; (ii) ensuring that backflow prevention

and air-gap separation assemblies are maintained and kept in operating condition at all times and (iii) arranging for testing of backflow prevention assemblies whenever required by this Section or a failure is suspected.

(5) As a condition of water and sewer service, the Water Department or other City agency may enter and inspect any property connected to the public water supply system at reasonable times to ascertain if there is adequate backflow protection.

(6) The service of water to any premises or at any connection may be shut off by the Water Department if it or another City agency (i) is denied access to the property for inspection pursuant to this Section after reasonable notice or (ii) it determines there is inadequate backflow protection at the service connection and/or any connection to the main, or a failure to maintain the backflow prevention or air-gap separation assemblies.

403.2 Backflow Protection Technician Requirements

(a) The Water Department (Water Department) maintains two registries of the names of persons certified by the Water Department's designate certification organizations and licensed by the Department of Licenses and Inspection to install, test and service backflow prevention or air-gap separation assemblies. One registry lists the names of backflow prevention technicians for domestic service connections (Backflow Prevention Technicians for Domestic Systems), and the other registry lists backflow prevention technicians for fire service connections

(Backflow Prevention Technicians for Fire System).

(b) The minimum requirements for a technician to be placed on the registry of Backflow Prevention Technicians for Domestic Systems are as follows:

(1) A license as a Registered Master Plumber issued by the Department of Licenses and Inspection;

(2) Successful completion of a four (4) day training by the New England Water Works Association or the American Society of Sanitary Engineering. Testing is part of this training; and

(3) Submission of the Certified Backflow Assembly Technician Registration Form (CR100) to the Industrial Waste and Backflow Compliance Unit of the Water Department.

(c) The minimum requirements for a technician to be placed on the registry of Backflow Prevention Technicians for Fire Systems are as follows:

(1) A license as a Fire Suppression Systems Contractor issued by the Department of Licenses and Inspection;

(2) Successful completion of a four (4) day training by the New England Water Works Association or the American Society of Sanitary Engineering. Testing is part of this training; and

(3) Submission of the Certified Backflow Assembly Technician Registration Form (CR100) to the Industrial Waste and Backflow Compliance Unit of the Water Department.

(4) Fire suppression worker should have a license from the Department of Licenses and Inspection.

(d) The Water Department may remove any person from these registries if the person fails to comply with the minimum requirements for placement on the registries.

(e) Only a person on the registry of Backflow Prevention Technicians for Domestic Systems may: (i) sign permit applications for backflow prevention assembly installation on domestic service lines as a certified technician; and (ii) sign approvals on PWD backflow prevention assembly test and maintenance records for domestic service and other PWD forms for domestic service as a certified technician.

(f) Only a person on the registry of Backflow Prevention Technicians for Fire Systems may: (i) sign permit applications for backflow prevention assembly installation on fire service connections as a certified technician; and (ii) sign approvals on PWD backflow prevention assembly test and maintenance records for fire service and other PWD forms for fire service as a certified technician.

(g) No person shall engage, or cause or direct any other person to engage, in installation, repair or inspection/testing work on domestic service connection backflow prevention assemblies unless such person is on the registry of Backflow Prevention Connection for Domestic Systems, or is licensed as a Registered Master Plumber or journeyman plumber or registered as an apprentice plumber pursuant to Section 9-1003 of the Philadelphia Code and performs such work under the supervision of a person on the registry of Backflow Prevention Technicians for Domestic Systems.

(h) No person shall engage, or cause or direct any other person to engage, in installation, repair or inspection/testing work on fire suppression system backflow prevention assemblies unless such person is on the registry of Backflow Prevention Technicians for Fire Systems, or has an apprentice permit from the Department of License and Inspection pursuant to Section 9-2505 of the Philadelphia Code and performs such work under the supervision of a person on the registry of Backflow Prevention Technician for Fire Systems.

(i) Backflow prevention technicians are subject to all requirements of the Philadelphia City Code and regulations of the Water Department and the Department of Licenses and Inspection.

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