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BULLETIN 99-2

Issued: June 1999 Revised: October 2008
Subject: Testing of Backflow Preventers
Reference: N.J.A.C. 5:23-2.23(I); N.J.A.C. 5:23-3.15, Plumbing Subcode, Section 10.5.6

In an effort to clarify the Uniform Construction Code requirement for the testing of backflow preventers, the Department of Community Affairs is updating this bulletin to give guidance on what devices need to be tested, when they need to be tested, and who may perform the test.

TESTING

The plumbing subcode official should ensure that backflow preventers which are designed to be field tested and which isolate cross connections between the water supply and contaminants are tested prior to final inspection and annually, as required by the regulations. Testable backflow preventers for one- and two-family dwellings are not required to be tested annually. Locations where cross connections between contaminants and the potable water supply are likely to be encountered include, but are not limited to, lawn sprinklers and irrigation systems, fire-protection systems, laboratories, chemical and industrial plants, boilers, hospitals, and waste-water treatment plants. A flat fee may be established by the municipality for the annual reinspection, as per N.J.A.C. 5:23-4.18(g)4. The Department fee is specified at N.J.A.C. 5:23-4.20(c)4.

Inspectors are not permitted to perform the test. The inspector's role is to make sure that the owner of the facility has the backflow preventers tested by a qualified individual. The inspector can ensure this either by witnessing the test, or having the owner submit a certification that the device was tested. This certification should identify the type and location of the device; the date tested; the results of the test; and the name, qualifications, and signature of the tester. A form that can be used to document the testing of backflow preventers follows. A Certificate of Compliance, which is to be valid for only one year, will be issued by the inspector after passing test results have been received.

On dedicated fire water service lines, the fire official will accept a current Certificate of Compliance issued in accordance with this bulletin. This will meet the requirement of National Fire Protection Association Standard 25 for the backflow annual test.

As evidenced by the Plumbing Subcode (Section 10.5.6 of the National Standard Plumbing Code), individuals testing these devices need to exhibit their qualifications. The tester must have a certification from an agency recognized by the New Jersey Department of Environmental Protection, Bureau of Safe Drinking Water.

BACKFLOW PREVENTER REPLACEMENT

Devices that do not pass the test are required to be repaired or replaced. Devices replaced on water supplies serving fire-protection systems must be approved for fire-protection service and cannot reduce the effectiveness of the fire-protection system. A permit will be required for all backflow preventer replacements. Where the backflow preventer is installed on a water service that is a dedicated fire service, the application must be submitted on a Fire Protection Subcode Technical Section. Where the water service is a combination fire and domestic service, the application must be submitted on a Plumbing Subcode Technical Section. Joint plan review by both the plumbing subcode and fire protection subcode officials are required for devices serving combination domestic and fire-protection systems. The municipal and Department fee for the replacement will be as per N.J.A.C. 5:23-4.18(c)2 and 4.20(c)2, respectively.

CROSS CONNECTION CONTROL DEVICE

Attachment

Control Device Permit No: _____

PERFORMANCE TEST

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Date of Test: _____

Owner's Name		Owner's Street Address
Owner's City		Owner's State, Zip Code
Project Name		Project's Street Address
City, State, Zip Code		Project's County
Assembly Location		
Manufacturer	Model	Serial #

Size _____ Assembly Type: _____ RP _____ RP Detector _____ DCV _____ DCV Detector _____ PVB

Initial Test

<i>1st Check</i>	<i>2nd Check</i>	<i>RP relief valve</i>
_____ Closed tight	_____ Closed tight	Opened at _____ PSID
_____ Leaked	_____ Leaked	_____ Did not open
Static _____ PSID	Static _____ PSID	

Final Test

_____ Closed tight	_____ Closed tight	Opened at _____ PSID
_____ Leaked	_____ Leaked	_____ Did not open
Static _____ PSID	Static _____ PSID	

Detector Bypass Assembly Initial Test

<i>1st Check</i>	<i>2nd Check</i>	<i>RP relief valve</i>
_____ Closed tight	_____ Closed tight	Opened at _____ PSID
_____ Leaked	_____ Leaked	_____ Did not open
Static _____ PSID	Static _____ PSID	

Detector Bypass Assembly Final Test

_____ Closed tight	_____ Closed tight	Opened at _____ PSID
Static _____ PSID	Static _____ PSID	

Pressure Vacuum Breaker Initial Test

<i>Air inlet valve</i>	<i>Check valve</i>	<i>Air inlet valve</i>	<i>Check valve</i>
Opened at _____ PSID	_____ Closed tight	Opened at _____ PSID	_____ Closed tight
_____ Did not open	_____ Leaked		Static _____ PSID
	Static _____ PSID		

Pressure Vacuum Assembly Final Test

Backflow Assemblies in Fire Protection Systems (Include hose stream demand where applicable)

Forward flow test

Design flow rate _____ GPM	Actual flow rate _____ GPM	
No. of nozzles flowed _____	Nozzle size _____	Pitot pressure _____ PSID
Inlet flow pressure _____ PSI	Outlet flow pressure _____ PSI	

Control Valves

___ No. one shut-off valve open	___ No. two shut-off valve open	Valve supervision: _____	___ Tamper switch	___ Locked
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I hereby certify the test results are true and the test was conducted by me personally.

Certified Tester Name (Print)

Certified Tester No.

Certified Tester Name (Signature)

Expiration Date

Address

Telephone

Date