State of New Jersey
Department of Community Affairs
Division of Codes and Standards
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BULLETIN NO.
99-2

Date: **June 1999**
Revised: **October 2008**

Subject: **Testing of Backflow Preventers**

Reference: **N.J.A.C. 5:23-2.23(l)**
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.AC. 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 fee for the replacement will be as per N.J.A.C. 5:23-4.20(c)ii.2.

Control Device Permit No: _____

Cross Connection Control Device Performance Test

Attachment
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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

1st Check	2nd Check	RP relief valve
_____ 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

1st Check	2nd Check	RP relief valve
_____ 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

Air inlet valve	Check valve
Opened at _____ PSID	_____ Closed tight
_____ Did not open	_____ Leaked
	Static _____ PSID

PRESSURE VACUUM BREAKER FINAL TEST

Air inlet valve	Check valve
Opened at _____ PSID	_____ Closed tight
	Static _____ PSID

BACKFLOW ASSEMBLIES IN FIRE PROTECTION SYSTEMS Note: Include hose stream demand where applicable

Forward flow test

Designed 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

I HEREBY CERTIFY THE TEST RESULTS ARE TRUE AND THE TEST WAS CONDUCTED BY ME PERSONALLY.

Certified Tester Name _____(Print) Cert. Tester No. _____

Cert. Tester Signature _____ Expiration Date _____

Address _____ Telephone No. _____

Date _____