Patten Water Department
Cross-Connection Control Policy and Procedures

INTRODUCTION:

This document sets forth the Patten Water Department's policy and procedures for implementation of its Cross-Connection Control Program.

CONTROL METHOD/CONTAINMENT:

A. General

There has been an ongoing debate concerning the method of cross-connection control that should be implemented by water utilities - containment or fixture isolation. There have been increasing efforts by people specializing in cross-connection control (primarily certification organizations and testers) to pressure public water suppliers to adopt fixture isolation as the preferred method for implementing cross-connection control. Patten Water Department (PWD) employs the containment method.

The containment method is implemented by installing a backflow preventer at the service connection to prevent used water from re-entering the public water system. Fixture isolation prevents contamination of the public water system and the customer's internal plumbing system by requiring installation of a backflow preventer at all plumbing fixtures within the building. Although cross-connection professionals have stated this philosophy of cross-connection control as a requirement, it has not been established by regulation. This philosophy is based primarily on two arguments:

Argument 1: The lead and copper rule has established precedent by assigning responsibility for water quality with respect to corrosives at the customer's tap to the supplier. If the supplier is also responsible to insure that all water quality standards are met at the tap, and internal cross-connections can degrade water quality, then the utility is also responsible to protect the internal plumbing system.

Argument 2: Customers are unfamiliar with cross-connections, their hazards, and methods of control. Therefore, they cannot be relied upon to insure that all plumbing fixtures are protected from cross-connections. The supplier, however, is knowledgeable and it's position and resources make it suited to serving as the primary enforcement agency for protection of internal fixtures. In addition, the State of Maine cross-connection rules give authority to the supplier to enter private property to inspect the customer's water supply system.

Therefore, the utility should be responsible for protection the customer's water supply system.

B. American Water Works Association - M14

The American Water Works Association manual of water supply practices M14 -recommended practice for backflow prevention and cross-connection control has been designed as a guide toward uniformity for waterworks employees, plumbers, and others involved in the detection and elimination of unprotected cross-connection. The manual outlines the responsibilities of the various parties involved in cross-connection control. Respective responsibilities are excerpted below, with comment:

Water User (Owner or Customer):

"Water user has the primary responsibility to keep contaminants out of the potable water system(s). This responsibility begins at the user connection and includes any and all water distribution piping on the premises. In Maine, the user connection is deemed as the outlet end of the meter." *Water system(s) is taken to mean the public water system and the customer's internal plumbing system.*

Water Supplier:
Water supplier has the responsibility to prevent contamination of the public water system from backflow. This responsibility begins at the source, includes the entire distribution system, and ends at the user connections. Further it states, "In some jurisdictions, such as Washington State and Massachusetts, legislation requires that the water supplier conduct surveys of internal potable water systems and implement programs to afford protection for both the public water supply and the individuals on the premises.

Health Agency:
"Health agency also has the responsibility for promulgating and enforcing laws, rules, regulations, and policies to be followed in controlling cross-connections. The agency has the responsibility to ensure that internal protection is provided and adequate backflow prevention programs are maintained." In Maine, the health agency is the Department of Human Services, Bureau of Health. DHS promulgates "Rules Relating to Drinking Water" (Chapter 231), "Cross-Connection Rules" (Chapter 226), and "State of Maine Internal Plumbing Rules" (Chapter 238).

Plumbing Official:
"Plumbing official has the responsibility for the enforcement of plumbing regulations concerned with preventing cross-connections." In Maine, the Local Plumbing Inspector is the designated plumbing official.

C. United States Environmental Protection Agency (U.S.E.P.A) Cross-Connection Control Manual

"U.S.E.P.A Cross-Connection Control Manual" was last revised in 1989 and is intended to serve as a technical reference in conducting cross-connection control programs. In Chapter 6, Administration of a Cross-Connection Program, the benefits and drawbacks of containment and fixture isolation are discussed. The manual states that the fixture isolation approach in large systems is a virtual impossibility to achieve and to police. It further acknowledges that internal plumbing cross-connection control survey work is generally foreign to the average water purveyor. Also, while it is admirable for the water purveyor to accept and perform survey work, he should be aware that he runs the risk of additional liability in an area that may be in conflict with plumbing inspectors, maintenance personnel, and other public health official's. Further guidance is given with respect to survey work. "If 'containment' is the prime objective of the survey, then only sufficient time need be spent in the facility to determine the degree of hazard inherent within facility or operation."

D. University of Southern California (USC) Foundation for Cross-Connection Control and Hydraulic Research

USC conducts research, sets standards and tests, and approves back-flow preventers. In addition, it publishes the "Manual of Cross-Connection Control" to provide responsible parties with information and suggested practices to implement effective cross-connection control programs. Section 3 of the manual lists the responsibilities of the various parties. The manual is in agreement with the responsibilities assigned by the American Water Works Association. The plumbing official's responsibility is explicitly stated: "the plumbing official's responsibility begins at the point of service (the downstream side of the meter) and carries throughout the entire length of customer's water system."

E. State Cross-Connection Rules

Patten Water Department
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The State of Maine Cross-Connection Rules (CMR 10-144, Chapter 226) does not assign responsibilities as explicitly as the preceding manuals. It simply states in Section 2:
A. Supplier shall not permit any cross-connection at any point within its system unless approved pursuant to a permit specifically issued for the cross-connection.
B. Department shall be responsible for insuring the proper operation and maintenance of an anti-backflow device and the periodic testing of the device.

F. State Plumbing Code

The State of Maine Internal Plumbing Rules (CMR 10-144, Chapter 238) also addresses cross-connections. No specific responsibility is assigned, except that the local plumbing inspector has the responsibility of preventing cross-connections from being designed or built into buildings within their jurisdiction.

G. Maine Public Utilities Commission

Maine PUC does not have any rules pertaining to cross-connection control. Nevertheless, PUC considered the issue in re: Robert E. Baldacci, Sr., et al, v. Bangor Water Department, Docket No. 88-251. The case considered whether or not the Bangor Water Department's cross-connection control program was reasonable in that it required all service connections to have a backflow preventer whether or not an actual cross- connection existed. The staff recommendation for the case discussed the containment method, and stated that, "the rational behind the containment method also implicitly recognized that anyone in Maine can do their own plumbing. Because unlicensed, and perhaps unqualified people, are permitted to install and work on their own plumbing cross-connections may be inadvertently present. Furthermore, as houses change owners over the years, plumbing may also change, thereby making it difficult for a public water supplier, such as the department, to keep track of individual cross-connections." PUC agreed with the staff recommendation and dismissed the complaint, finding that the Bangor Water Department's cross-connection control program was reasonable.

H. Conclusions

The rationale for assignment of responsibility of water quality protection to the tap by the supplier is derived from the lead and copper rule, which requires that the water be non-corrosive at the tap. Some people conclude that since this is required, the supplier is also responsible for all water quality at the tap. Nevertheless, the rule contains no provisions concerning other contaminants, and nowhere mentions cross-connections. The 1986 Safe Drinking Water Act Amendments included the following language within the definition for Maximum Contaminant Level: "contaminants added to the water under circumstances controlled by the user, except those resulting from corrosion of piping and plumbing caused by water quality, are excluded from this definition's (CFR 40, Paragraph 141.2 Section C). There is no reasonable basis to conclude that the supplier is responsible for all water quality parameters at the tap.

The argument that the supplier's position and resources establish responsibility for water quality at the tap similarly has no basis. It assumes that utility personnel are as knowledgeable as licensed plumbers, and ignores the responsibilities assigned to plumbers and the local plumbing inspectors, in the internal plumbing rules. Water utilities do not routinely employ licensed plumbers, nor is it reasonable to expect that they should since it is not necessary for the operation of a public water supply. The point is made in Baldacci v. Bangor Water Department that the supplier cannot be expected to maintain control over the internal plumbing of all of its customers. This is also acknowledged in the EPA Cross-Connection Control Manual.

The organizations and documents cited above clearly show that the responsibility of the department is to insure

that connections to the public water system are protected to prevent contamination. The State of Maine assigns responsibility for internal protection to the water user and the local plumbing inspector via the Internal Plumbing Rules. The ability of the department to exercise and maintain control over all customers' plumbing systems is practically impossible and the potential liability inherent with such a program is incalculable. On the basis of these considerations, therefore, the department shall continue to use the containment method of cross-connection control.

IMPLEMENTATION POLICY

A. Policy

Patten Water Department recognizes that the containment method provides protection of the public water system from existing or potential cross-connections. Further, actual cross-connections may not exist and, therefore, cross-connection control would theoretically be unnecessary. Nevertheless, undetected cross-connections may exist, and uncontrolled plumbing changes may be made subsequent to inspection and without the department's knowledge. These conditions may result in a cross-connection, either knowingly or unknowingly, and pose a public health threat. Therefore, in consideration of the need to protect the public water supply from actual and potential cross-connections, it shall be the policy of Patten Water Department to implement cross-connection control by the containment method.

B. Responsibilities

Superintendent shall have overall responsibility to insure that Patten Water Department's cross-connection control program is implemented.

Superintendent shall be designated as the cross-connection control officer, and shall insure that the procedures set forth in this policy and procedures are implemented.

Superintendent shall determine the degree of hazard present at all customer facilities and shall specify the type of backflow preventer to be installed.

Superintendent shall be responsible for daily operations related to the cross-connection control program, including the preparation of all correspondence and record keeping.

The Customer's contractor (person certified for testing backflow devices by New England Water Works Association (N.E.W.W.A) or American Backflow Prevention Association (A.B.P.A) and approved by the Patten Water Department shall be responsible to insure that no new water meter or replacement meter is installed unless a backflow preventer is in place.

C. Compliance Schedule

Industrial Customers:
Patten Water Department recognized that industrial operations using public water in production processes represent a potential public health threat by the nature of their operations. The department shall therefore

inspect and require installation of a backflow preventer commensurate with the potential degree of hazard present for all industrial customers. All industrial customers shall be re-inspected every five years to verify the degree of hazard assigned.

Commercial and Government Customers:
PWD recognizes that commercial and governmental concerns may use public water under conditions that would cause potential nuisance or public health threats if a backflow incident were to occur. The Department shall therefore inspect and require installation of a backflow preventer commensurate with the potential degree of hazard present for all commercial and governmental customers.

All commercial and governmental customers shall be re-inspected every five years to verify the degree of hazard assigned.

Residential Customers
PWD Rules and Regulations require that all customers shall have a backflow preventer when their meter is replaced or their service is renewed. This requirement shall be maintained for all existing residential customers. All new customers shall have a backflow preventer before service is established.

D. Procedures for Implementation

General
A. American Water Works Association Manual M14, "Recommended Practice for Backflow Prevention and Cross-Connection Control" shall serve as the basis for practices concerning all aspects of the Department's Cross-Connection Control Program relating to administration, hazard classification, methods of control, and fire protection system requirements.

B. All correspondence giving notice for inspection of premises, inspection results, compliance requirements, and test requirements shall be sent by registered mail, return receipt requested. All time periods specified for giving notices and compliance requirements shall be calendar days unless otherwise specified.

New Customers
A. All new customers shall have a backflow preventer.
1. All residential customers shall have at a minimum a dual check valve type backflow preventer.
2. All non-residential customers shall install a device commensurate with the degree of hazard.

B. Customers shall be informed of the device requirements and receive an application for a cross-connection permit, if required, when application for service is made.

C. Water service shall not be established until a backflow preventer has been installed and, where required, has been tested and a permit application has been received by the Department.

Existing Non-Residence Customers
A. All non-residential customers' premises shall be inspected to determine the potential degree of hazard present. Until inspection of premises is completed, all non-residential customers shall be presumed to be Class 11 or higher hazards.

B. Notifications of inspection of premises shall be done in accordance with the Department's Cross-connection Control Program.

C. Department of personnel shall perform inspections.

D. Notification shall be provided to no-residential customers at least 14 days in advance that the Department intends to inspect their premises.

E. Within seven days of the inspection, notice shall be sent to the customer to inform them of the degree of hazard assigned and the type of backflow preventer required.

F. Customer Shall be given at least 30 days to comply with the requirements of the Cross-connection Control Program.

G. The facility shall be re-inspected not more than the 45 days after notification to verify the presence of a backflow preventer.

H. If compliance is not achieved, the customer shall be given an additional 10 days to comply.

I. If the customer fails to comply following the second notice, water service to the premises shall be terminated in accordance with Department Rules and Regulations and PUC rules.

Existing Residential and Class I Hazard Non-residential Customers

A. All residential customers shall be considered Class I hazards, and shall be protected at a minimum by a dual check valve backflow preventer.

B. Permits and annual testing for Class I devices will not be required.

C. All new residential and Class 1 hazard non-residential customers shall install at a minimal a dual check valve back-flow preventer.

D. Existing residential and Class I non-residential customers shall install a backflow preventer when their meter is replaced or their service is renewed.

E. For customers requesting that their service be renewed, or any service scheduled to be renewed as part of any main or service replacement program, the Department shall provide 30 days' notice prior to commencement of the work that the customer shall install a backflow preventer.

F. The Department shall verify that the backflow preventer has been installed prior to commencement of the work. If a customer has failed to install a backflow preventer, a second notice shall be sent and the customer shall be given an additional ten days to comply.

G. If the customer fails to comply, water service shall be terminated in accordance with Department Rules and Regulations and PUC rules.

H. For all customers scheduled to have their meter replaced, either by customer request or Department initiative, notification that a backflow preventer shall be installed shall be given as outlined in parts E-G above.

Testing

A. Testing shall be done in accordance with PWD Cross-Connection Control Program.

B. The Customer's contractor may do testing.

C. The tester shall be recognized as competent to test backflow preventers by holding a valid certificate from the New England Water Works Association or American Back-flow Prevention Association. The Department will consider other certification programs on a case-by-case basis.

D. Testable class II and II devices shall be tested upon installation and annually thereafter.

E. All tests shall be scheduled for completion by December 1st of each year.

F. At least 10 but not more than 20 days after the test period closes, the Department will send written notice to customers who failed to test their backflow preventer. Customer shall be given 30 days to complete the test.

G. If a customer fails to test their device following the first notice, a second written notice will be given. The customer shall be given an additional 10 days to complete the test.

H. If a customer fails to test their device after the second notice, water service shall be terminated in accordance with Department Rules and Regulations and PUC rules.

I. Customer shall notify the Department within 24 hours of any device that fails a test, and shall endeavor to repair the device as soon as possible. If the device fails after repairs have been made, the Department may require that the device be replaced. If an imminent health hazard exists, the Department may terminate service to the premises immediately.

Related Issues

1. Responsibility with respect to internal cross-connections: PWD recognizes that cross-connections may exist in the customer's water supply system, and that the containment method does not afford protection to internal plumbing fixtures. Therefore, the Department shall advise the customer in all correspondence that the customer should retain a qualified professional to insure that internal cross-connections are adequately protected from backflow.

2. Responsibility with respect to thermal expansion: PWD recognizes that installation of a backflow preventer may prevent water that expands due to heating from moving back into the public water supply system, and that resulting pressure increases could cause safety and relief valves to operate, or equipment or piping to fail. Therefore, the Department shall notify all customers required to install a backflow preventer that they should retain the services of a qualified professional to insure that their water supply system is adequately protected from the effects of thermal expansion.

3. Education: PWD recognizes that customers may not be knowledgeable concerning cross-connection control. Therefore, the Department shall periodically inform customers of the general concepts of cross-connection control and the Department's program requirements through mailings of brochures and other educational materials. In addition, the Department shall maintain a file of materials that may be sent to customers upon request for more detailed or site-specific information.

Program Review
PWD Cross-connection Control Program shall be reviewed and amended as required. Revised programs shall be submitted to the Department of Human Services for review and approval.

Record-Keeping Requirements
1. Non-Permit Devices: Department shall maintain records of all Class I devices.

2. Permitted Devices: Department shall maintain installation, test, and repair records of all Class II and III devices.

PATTEN WATER DEPARTMENT
CROSS-CONECTION CONTROL PROGRAM

PURPOSE

Cross-connections between public water supplies and non-potable sources of contamination represent one of the most significant threats to health in the water supply industry. This program is therefore desired to maintain the safety and potability of the water in the Patten Water Department's water system by preventing the introduction of any foreign liquids, gases, or other substances to the public water system other than water from the intended source.

AUTHORITY

This program derives its enforceability from Title 22, MRSA, C 601, and subchapter 2, Sec.2612 (5) Maine Department of Health and Human Services, Cross-connection Rules 10-144A CMR 226. In addition, authority rises from the Rules and Regulations as published by the Patten Water Department and as approved by the Public Utilities Commission of the state of Maine; from provisions of the Occupational Safety and Health Act; and from provisions of the State Plumbing Code Part I, 10-144A CMR 238.

DEFINITIONS

A. Auxiliary Water Supply
Any water supply on or available to the premises other than PWD approved public water supply. These auxiliary waters may include but are not limited to water from another purveyor's public water supply or any natural source such as a well, spring, river, or stream; used waders; or industrial fluids. These waters may be contaminated or polluted, or they may be objectionable and constitute an unacceptable water source over which the Supplier does not have sanitary control.

B. Backflow
The flow of water or other foreign liquids, gases or other substances into the distribution system of a public water supply from any source other than the intended.

C. Backflow Preventer
An assembly or means desired to prevent barrow.

1. Double Check Valve Assembly: The approved double check valve assembly consists of two internally loaded check valves, either spring loaded or internally weighted, installed as a unit between two tightly closing resilient-seated shutoff valves with properly located resilient-seated tests cocks. This assembly shall only be used to protect against a non-health hazard that is a pollutant.

2. Reduced Pressure Principal Backflow Preventer: The approved reduced-pressure principle backflow preventer consists of two independently acting approved check valves together with a hydraulically operating, mechanically independent pressure differential relief valve located between the check valves and below the first check valve. These plates are located between two tightly closing resilient-seated shutoff valves as an assembly and equipped with properly located resilient-seated test cocks.

D. Backpressure
Is a condition in which the Owner's system pressure is better than the Supplier's system pressure.

E. Back-siphonage
Backflow caused by negative or reduced pressure in the supply piping.

F. Contamination
Is an impairment of a potable water supply by the introduction or admission of any foreign substance that degrades water quality and creates a health hazard.

G. Cross-connection
A connection, or potential connection, between any part of a potable water system and any other environment containing other substances in a manner, that under any circumstances, would allow such substances to enter the potable water system. Other substances may include, but are not limited to, gases, liquids, or solids, such as chemicals, waste products, steam, water from other sources (potable and non- potable), or any matter that may change the color or add odor to the water.

H. Cross-connection Controlled
A connection between the a potable water system and a non-potable water system with an approved hacksaw preventer properly installed and maintained so that it will continuously afford the protection commensurate with the degree of hazard.

I. Cross-connection Control by Containment
The installation of an approved backflow preventer at the water service connection to an owner's premises where there are actual or potential cross connections that cannot be effectively eliminated or controlled within the Owner's water system.
Department

J. Department
State of Maine Department of Health and Human Services.

K. Hazard, Degree of
This term is derived from an evaluation of the potential risk to public health and the adverse effect of the hazard upon the potable water system.

1. Class I - Low Degree of Hazard
If backflow were to occur, the resulting health significance would be limited to minor changes in the aesthetic quality such as taste, odor, or color. The foreign substance must be non-toxic and non-bacterial in nature and have no significant health effect.

2. Class II - Moderate Degree of Hazard
If backflow were to occur, the resulting health significance would be limited to minor changes in the aesthetic quality such as taste, odor, or color. The foreign substance
must be non-toxic and non-bacterial in nature and have no significant health effect.

3. Class III - High Degree of Hazard

If backflow were to occur, the resulting effect on the water supply would be significant changes in aesthetic qualities. The foreign substance must be non- toxic to humans and non-bacterial in nature.

L. Owner
Any person who has legal title to, or license to operate, a property which has a service connection to the supplier's water system.

M. Permit
A document issued by the Department with the approval of the Supplier that allows the use of a backflow preventer.

N. Person
Any individual, partnership, company, public or private corporation, political subdivision, agency of the State, department or agency of the United States, or any other legal entity.

O. Pollution
The presence of any foreign substance in water that tends to degrade its quality to constitute a non-health hazard or impair the usefulness of the water.

P. Supplier
Patten Water Department

Q. Service Connection
The terminal end of a service connection, from the potable public water supply system, that is where the Supplier loses jurisdiction and sanitary control over the water at its point of delivery to the Owner's water system. If a meter is installed at the end of the service connection, then the service connection shall mean the downstream end of the meter. There shall be no unprotected takeoffs from the service line upstream of any meter or backflow preventer located at the point of delivery to the Owner's water system. Service connection shall also include water service connection from a fire hydrant and all other temporary or emergency water service connections from the public water system.

R. Water - Potable
Water that is safe for human consumption as described by the Department.

S. Water - Non-potable
Water that is not safe for human consumption or that is of questionable quality.

T. Water - Used
Any water supplied from a public potable water system to an Owner's water system after it has passed through the water service connection and is no longer under the sanitary control of the Supplier.

U. Water System
1. The water system shall be considered as made up of two parts: the Supplier's system and the Owner's system.

2. Supplier's system consists of the source facilities and the distribution system, and includes all those facilities of the water system under the complete control of the Supplier, up to the service connection. The source includes all components of the facilities used in the production, treatment, and delivery of water to the distribution system. The distribution system includes the network of conduits used for the delivery of water

from the source to the service connection.

3. Owner's system includes those parts of the facilities beyond the service connection that are used to convey supplier-delivered water to points of use.

POLICY AND ADMINISTRATION

A. Supplier shall develop and operate a cross-connection control program, including keeping necessary records, which fulfills the requirements of the Department's Cross Connection Rules and is approved by the Department.

B. All service connections shall be protected from backflow by cross-connection control using the containment method.

C. Owner shall be responsible for water quality beyond the service connection.

D. Owner shall allow his property to be inspected for possible cross-connections and shall comply with the provisions of the Supplier's program, the Department's Cross- Connection Rules, and the State Plumbing Code.

E. Both the Supplier and the Owner shall attempt to eliminate all cross-connections.

RESPONSIBILITIES

A. Suppliers Responsibilities

1. Supplier shall insure that all new service connections are installed in compliance with the Supplier's Cross-connection Control Program. All new services shall be protected from backflow by cross connection control by containment, that is, with an approved backflow preventer installed at the service connection immediately downstream of the water meter.

2. Supplier shall conduct inspections of all existing non-residential service connections, and of all dwellings containing more than four apartments for cross-connections or potential cross-connections.

A. Supplier shall not allow any cross-connection to remain unless it is protected by an approved backflow preventer for which a permit has been issued and which is regularly tested and operates satisfactorily. Certain fixtures do not require a permit and do not require periodic testing.

B. Supplier's inspections shall be made during normal working hours unless otherwise arranged with the Owner.

C. Supplier shall, after initial inspection of plans or premises, inform the Owner, by letter, of any cross-connection control measures deemed necessary, and the time allocated before implementation is required. (Note: Normally, a maximum time of 30 days will be allowed.)

D. Supplier shall re-inspect the premises upon notification that a backflow preventer has been installed or subsequent to the date stipulated for correction under paragraph c above. The Supplier shall inform the Owner, by letter, of any failure to comply following the first re-inspection. The Supplier will allow sufficient additional time for the correction. (Note: Normally, a maximum time of 10 days will be allowed.)

E. If there is a failure to comply by the time of any subsequent re-inspection; the Supplier shall inform the

Owner, by letter, that water service to the Owner's premises will be terminated. The termination procedure shall be as specified in the Supplier's rules and regulations and in accordance with Maine Public Utilities Commission rules.

3. If the Supplier determines at any time that a threat to the public health exists, service shall be terminated immediately.

4. Re-establishment of service before the installation of a backflow preventer may be allowed by the Supplier after an agreement has been made between the Supplier, the Department, and the Owner, indicating the intention of the Owner to comply with the provisions of the agreement.

5. Supplier shall re-inspect all non-residential customers every five years.
6. Supplier should advise owners of their responsibility to insure that cross- connections in the Owner's water system are eliminated or properly protected. The Supplier should also advise the Owner of possible problems that may be encountered as a result of the installation of a backflow preventer in existing plumbing systems due to thermal expansion.

B. Owners Responsibilities
1. Owner, after being informed by a letter from the Supplier, shall allow Supplier's Contractor to install, maintain, and test, or have tested any backflow preventer on his service connection.

2. Owner, or his agent, shall submit copies of all test reports to the Supplier within ten calendar days of completion of the test. Owner, or his agent, shall immediately notify the Supplier of any backflow preventer test that fails.

3. Owner shall correct any malfunction of the backflow preventer that is revealed by periodic testing. This shall include the replacement of parts or the replacement of the backflow preventer if deemed necessary by the Supplier. The Owner shall re-test the repaired device and submit copies of repair and test records to the Supplier within ten calendar days.

4. Owner shall inform the Supplier of any new, proposed, or modified cross-connection and also any existing cross-connection that the Owner is aware of but has not been found by the Supplier.

5. Any Owner having an auxiliary water supply must have a permit if the supply is cross-connected to the Supplier's system, and permission to cross-connect may be denied by the Supplier. Owner will be required to have a backflow preventer at the service connection if an auxiliary water supply is maintained, even if it is not cross-connected to the Supplier's system.

6. Owner shall not install a bypass around any backflow preventer unless there is a backflow preventer on the bypass. Owners who cannot shut down operation for testing must supply the additional devices necessary to allow testing to take place.

7. Owner shall only install backflow preventers listed or approved by the Supplier and the Department.

8. Owner shall maintain the backflow preventer in a manner approved by the Supplier.

9. Pit installations are strongly discouraged and must have Department approval before a permit will be issued.

PERMITS

1. Department upon recommendation of the Supplier will issue permits for any backflow situation except those listed as exemptions.
2. Permits will only be issued if the cross-connection is deemed necessary and cannot be eliminated.

3. Permit shall contain:
A. Degree of hazard.
B. Frequency of testing of the backlog presenter.
C. Type, model, make, and serial number of the backflow preventer. If more than one device is used to protect a sing cross-connection, it shall be listed on the permit.
D. Any Exemption.

4. Permits shall be non-transferrable.

5. Permits shall be renewed every five years.

EXEMPTIONS

1. Any cross-connection protected against back-flow, at the time this program goes into effect may continue with that same protection unless:

A. Existing protection is grossly inadequate.

B. Department notifies the Supplier in writing that a change must be made.

2. Exemption will expire when the backflow preventer must be replaced and the replacement backflow preventer must be that required by the degree of hazard present.

3. Backflow preventer installed on service connections to provide protection for Class I hazards will not require a permit.

PERIODIC TESTING

It is recognized that any backflow preventer can fail and any method of protection can be subverted. Therefore, periodic testing, depending upon the degree of hazard, and inspections are necessary. This includes all types of backflow prevention.

1. Periodic testing shall be performed by a person who has been certified for testing Backflow devices by the New England Water Works Association or the American Backflow Prevention Association and approved by the Patten Water Department. The cost of such testing shall be at the expense of the owner.

2. Time interval for testing a backflow preventer shall be stated on the permit and shall be determined by the Supplier.

3. All tests required for a given year shall be completed by December 1st of each year.

4. Any backflow preventer that fails a test will be immediately repaired. The Supplier shall require that repair parts be ordered within 24 hours and that shipment is by the fastest means possible. Any delay of more than seven days shall require discontinuance of service or other means to insure protection of the public water supply system.

5. Certain Class III degree of hazard situations, as determined by the Supplier, will not be allowed to continue unprotected if the backflow preventer fails the test and cannot be immediately repaired. The Owner is responsible for the provision of spare parts.

This Policy and the attached maintenance form and cross connection permit application were adopted by the Patten Board of Selectmen on the 3rd day of July 2013.

Ken Perkins

Lana Tucker

Richard Schmidt III.

Sally Landry

Rebecca Phillips

Attest: A True Copy.

Terri Conklin, Deputy Town Clerk.

Backflow Prevention device Test and Maintenance Report

Patten Water Department PWSI # 91240
P.O. Box 30
Patten, Maine 04424 (207-441-3590)

Date Tested _____

Degree of Hazard _____

Applicant / Owner of Device
Name: _____
Street: _____

Testing Frequency
Yearly _____

Town: _____
State: _____ Zip: _____

Attn: Cross-connection Control Section

The cross-connection control device detailed hereon has been tested and maintained as required by the Department rules and regulations and is certified to comply with the State rules and regulations.

Make of device _____ Size _____
Model Number _____ Located at _____
Serial Number _____ _____

	Reduced Pressure Device		Relief Valve	Pressure Vacuum Breaker	
	1st check	2nd check		Air Inlet	Check Valve
Initial Test	DC-closed tight_____ RP- _____psid Leaked _____	Closed tight _____ Leaked _____	Opened at _____psid	Opened at _____psid Did not open _____	_____psid Leaked _____
Repairs and Materials used					
Test After Repairs	DC- Closed tight ____ RP- _____psid	Closed tight _____	Opened at _____psid	Opened at _____psid	_____psid

The above is certified to be true.

Firm Name
_____

Certified Tester
_____

Firm Address
_____

Plumbing Lic. #
_____

Signatures

Owner or Agent _____ Water Utility Rep _____

Certified Tester _____ Drinking Water Program_____

Patten Water Department
Cross Connection Permit Application

Applicant/Owner	Plant/Establishment
Name: _____	Name: _____
Street: _____	Street: _____
City: _____	City: _____
State: _____	State: _____

Pubic Water System: Patten Water Department PWSID# 91240

Contaminants: _____
Degree of Hazard (High, Low, Residential): _____

*** Devices ***

1. Size: _____ Device#: _____ Name: _____ Serial#: _____

2. Size _____ Device#: _____ Name: _____ Serial#: _____

3. Size: _____ Device#: _____ Name: _____ Serial#: _____

Commments: _____

Applicants Signature: _____ Date: _____
Title: _____ Phone#: _____

For Public Water System Use Only

☐ Approved ☐ Not Approved

Testing Frequency Required (Yearly, Quarterly, Semiannual, Monthly): _____

Public Water System Signature: _____ Date: _____

Title: _____ Phone #: _____

Comments: _____