Lickin Creek Water District

Cross Connection Control Program Documentation

Cross Connection Control Policy

Lickin Creek Water District # 04279
CROSS CONNECTION CONTROL POLICY

A policy relating to "cross connection control and backflow-prevention control" at the Lickin Creek Water District.

PART I:
CROSS CONNECTION CONTROL AND BACKFLOW PREVENTION
(1) It shall be against Lickin Creek Water District policy, at any connection supplied with water from the Lickin Creek Water District distribution system, to do any of the following:

(a) To install or use any physical connection or arrangement of piping or fixtures, which may allow any fluid or substances unsuitable for human consumption to enter the potable water distribution system, as required by Section 608.1 through 608.5 of the International Plumbing Code.

(b) To install any connection, arrangement, or fixtures without a Backflow Prevention Device or approved Assembly unless arranged otherwise by the Board Member over Water.

(c) To incorrectly install any Backflow Prevention Device or Assembly required by Section 608.6 and 608.1 of the International Plumbing Code.

(2) Any person found in violation of this policy shall be subject to reprimand or other appropriate disciplinary action as determined by the Board Member over Water.

(3) Administration of this policy shall be referenced by "Cross Connection Control Program of Utah, November 2003". A copy of the manual shall be available at the office of the Lickin Creek Water District

(4) Backflow prevention assemblies required by this policy will be required to be tested at least annually. The Board Member over Water shall prepare and maintain a Backflow Assembly Information sheet on all such devices and Test results shall be maintained for a period of no less than five (5) years.

Part II:
This policy shall take effect on January 1, 1999. A copy of the policy shall be placed in the office in the Water Board water system binder and will be reviewed for all new construction projects on a case by case basis.

Signed: Michael S. Olsen

Date: December 15, 1998

Title: Owner

Education

EDUCATION

12-2-98 Received training at Heber City for a cross connection program

12-7-98 Used material from training class to provide consumer awareness. Selected hand out of definitions for giving to homes. Added contact number for system copied, printed and delivered

3-15-99 Sent information on turning on out side water and use of hose bibs for watering

8-01-99 Sent information on turning off outside water

4-1-2000 Information sent for turning water on and flyer from AWWA on hoses

4/15/2001 WATER system meeting. All invited. Had stategy showing how back flow happens with a piping arrangement. All came

4/3/2002 Sent flyer on cross connection hazards and 50 questions handout

March 12, 2003 Sent ABPA phamphlet for cross connections

July 4 2003 Scheduled Board meeting to discuss water issues and cross connections, 25 in attendance. Discussed water troughs.

April 12 2004 Sent out flyer for education about thermal expansion

September 13, 2004 Sent out information about turning water off and winterizing

March 2, 2005 Sent flyer out about delinitions

February 28, 06 went to St George for Rural Water Conference and training

3-8-2006 Had Board meeting, discussed cross connections. Showed video "Dangers of Cross Connections" Handed out new Awwa

6-8 2006 New carwash going in at Maple Street lot. Contacted Mr Bunny concerning protection needed.

YOU CAN AFFECT THE QUALITY OF THE WATER YOU DRINK

Many public drinking water systems are contaminated each year by pollutants or contaminants that backflow into the water system through unprotected cross-connections. **Identifying and eliminating or protecting cross connections is a matter of public health!**

WHAT IS A CROSS-CONNECTION?
A cross-connection is a physical connection (piping configuration) between the public drinking water system and anything else, including another water supply that can allow pollutants or contaminants to backflow into the public drinking water system.

WHAT IS BACKFLOW?
Backflow is the reversal of flow from a residential or commercial water system back into the public drinking water system. A backflow incident could carry pollutants or contaminants into our public drinking water supplies making them unsafe to use.

The Plumbing Code and the Utah Public Drinking Water Rules require that all cross connections be eliminated or protected against backflow by installing an approved backflow device or assembly.

CAN I PROTECT MY HOME OR BUSINESS FROM THE DANGERS ASSOCIATED WITH CROSS-CONNECTIONS AND BACKFLOW?
Yes! Several common cross connections are described in the following paragraphs.

Threaded Hose Connections (Hose Bibs)
A large majority of backflow incidents are created by the common garden hose. Modern Plumbing Codes require that all threaded potable water outlets (hose bibs or sill cocks), except water heater drains and clothes washer connections, be protected by a non-removable hose bib vacuum breaker or an atmospheric vacuum breaker. The installation of a hose bib vacuum breaker is an inexpensive way to protect against contamination.

Kitchen and Bathroom Faucets
Kitchen and bathroom facets are generally designed with an adequate air gap between the end of the faucet and the flood rim of the sink. They are manufactured so that a hose can not be attached to the end of the faucet. Slip on hose connections can defeat the protection of the air gap and should not be used!

Hand held shower sprayers and other similar hose attachments also pose a problem. If submerged in the water, back-siphonage can occur. This problem can be corrected by installing a special hose vacuum breaker.

Laundry Rooms
Your washing machine has air gaps built in at the factory. Utility sink faucets must be equipped with a hose bib vacuum breaker or atmospheric vacuum breaker.

Special Conditions
Drain lines from water softeners and water conditioners are typically connected to the sewer line. An air gap must be provided between the end of the drain line and the sewer line to eliminate the possibility of raw sewage being back-siphoned into the drinking water system.

Sinks used for special purposes such as home photography darkrooms, arts and crafts, etc. must be protected by vacuum breakers to ensure that chemicals or other pollutants will not enter the water supply.

Ballcock Assemblies in Toilets
Many toilets are equipped with ballcock assemblies that do not meet code. These assemblies can allow water from the toilet tank to be siphoned back into the drinking water supply. Anti-siphon ballcock assemblies must be used to protect against back-siphonage.

Landscape Sprinkling System
The Plumbing Code requires that all landscape sprinkling systems connected to the public drinking water system be equipped with an approved backflow prevention device or assembly.

Any sprinkling system that can utilize both public drinking water supplies and secondary water supplies must follow specific plumbing regulations to prevent raw water from entering the drinking water system!

WHERE CAN I GET INFORMATION OF HAVE MY QUESTIONS ABOUT CROSS CONNECTIONS ANSWERED?
Call your local public drinking water agency or plumbing inspector regarding cross connection control and backflow prevention requirements in your area.

For further information call

Utah Chapter - American Backflow Prevention Association 801-949-5512

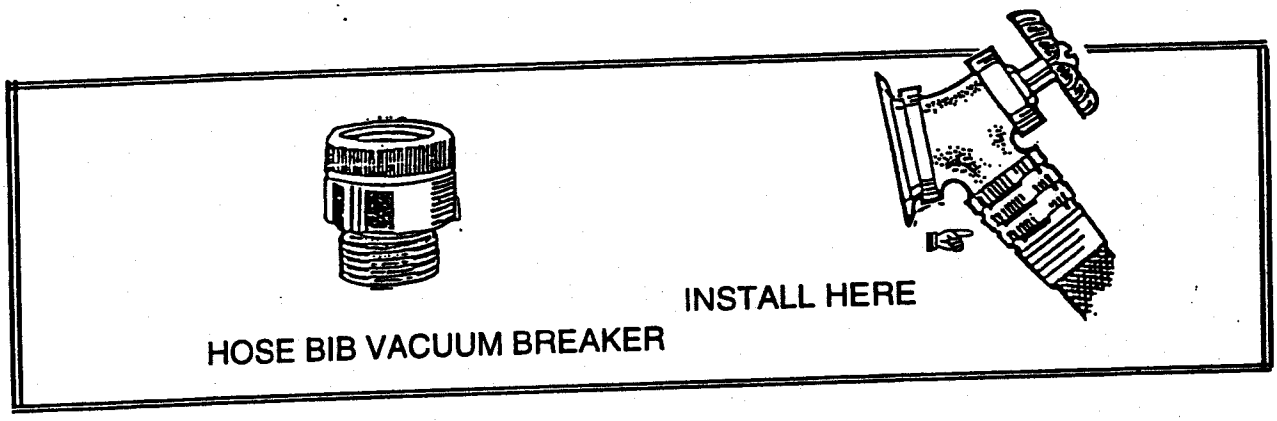
Utah State Division of Drinking Water 801-536-4200

Contact John Jamison
123 Easy Street
Lickin Creek Water System
(435) 123-4567

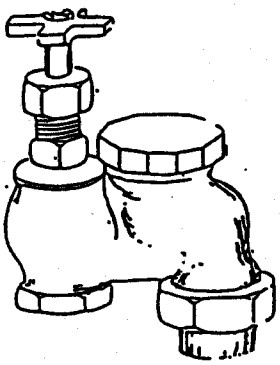
ARE YOU CONTAMINATING YOUR WATER SUPPLY?

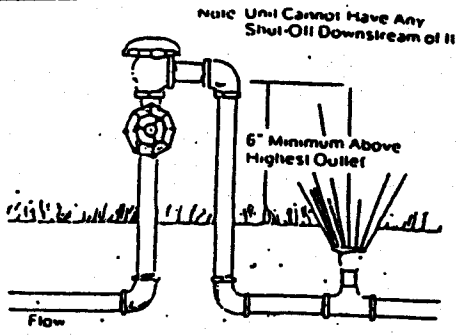
Backflow prevention assemblies provide protection against contamination or pollution of the public drinking water systems. A backflow incident can seriously affect the quality and safety of our drinking water supplies. Backflow is the reverse flow of contaminated water or other substances from a user's water system back into the public drinking water system. Backflow can occur if your plumbing system is physically connected (a cross connection) to any source of contamination or pollution. Examples of possible cross connections include landscape sprinkling systems, hose attachments for utility sinks, and garden hoses.

Most backflow incidents occur as a result of using a hose without proper backflow protection. A hose bib vacuum breaker provides adequate backflow protection for garden hoses. The Plumbing code requires that all new potable water outlets with hose attachments (threaded hose bib faucets) be equipped with hose bib vacuum breakers or atmospheric vacuum breakers. The use of a hose bib vacuum breaker on all threaded hose bib faucets is strongly recommended. Hose bib vacuum breakers are available at most plumbing supply outlets.

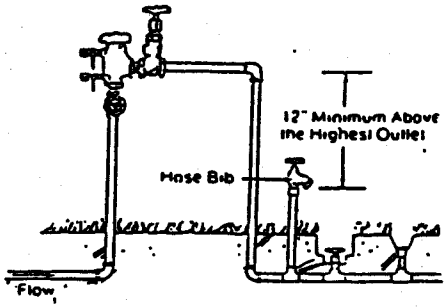


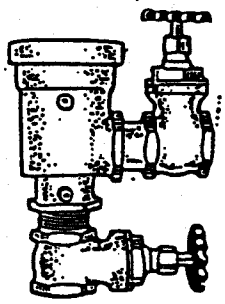
The Plumbing Code requires that lawn sprinkling systems be equipped with an approved backflow assembly (antisiphon valve). Atmospheric Vacuum Breakers (AVB) or Pressure Vacuum Breakers (PVB) can be used in many situations as long as specific installation requirements are met. These assemblies must be installed above the highest discharge point on the sprinkling system. The AVB cannot be used if shutoff valves are located down stream of the device. A Double Check Valve (DCA) assembly or Reduced Pressure principle (RP) assembly must be used any tie the sprinkling system piping is higher than the backflow assembly. A (RP) assembly is required on systems that utilize any type of chemical injection process. All PVB, DCA, and RP assemblies must be tested by a certified backflow technician within ten days of initial use and annually thereafter. These installations must be reported to your local water supply agency. They are required by law to keep an inventory of all testable assemblies installed in their service area.



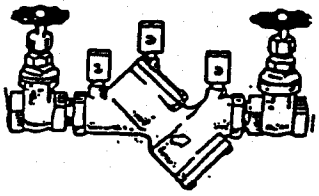


ATMOSPHERIC VACUUM BREAKER
HIGH OR LOW HEALTH HAZARD

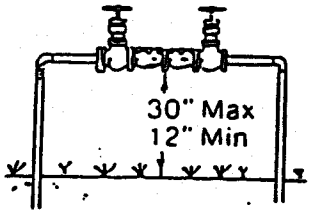


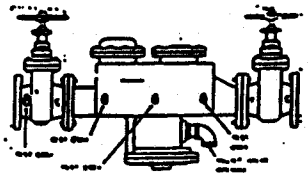


PRESSURE VACUUM BREAKER
HIGH OR LOW HEALTH HAZARD



DOUBLE CHECK
VALVE ASSEMBLY
LOW HEALTH HAZARD ONLY





REDUCED PRESSURE
PRINCIPLE ASSEMBLY
HIGH OR LOW HEALTH HAZARD

Dual source sprinkling systems (suing both raw water pressure irrigation and drinking water supplies) are considered **HIGH HEALTH HAZARDS** and must follow special precautions to protect the public health and drinking water supplies. Codes and laws do not allow direct connections between dual water sources. **Contact your local water purveyor for assistance in determining adequate protection methods!**

Contact your local water purveyor or plumbing inspector for more information concerning cross connection control or the installation of backflow prevention assemblies.

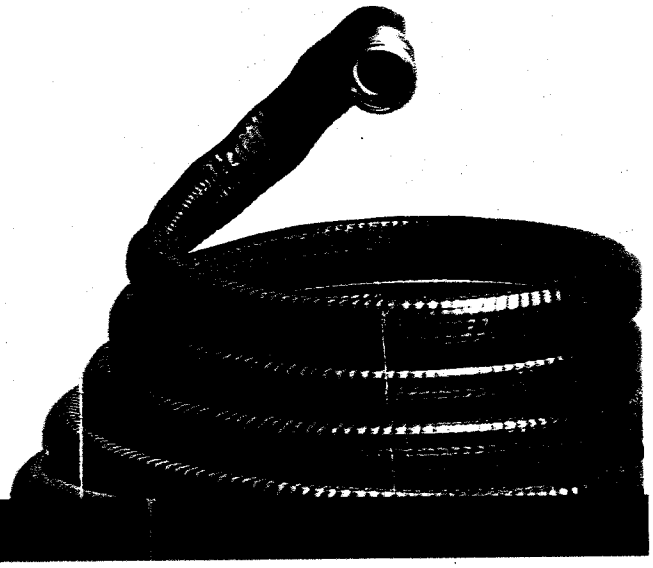
A man sprays commercial veed killer containing an rsenic compound on his lawn using a hose attachment. After ie finishes, he disconnects the pplicator. It is a hot day so he akes a refreshing drink of water rom the hose. A short time ater he dies from arsenic oisoning.

Caution!

Your Hose May Be Hazardous To Your Health!

What happened?

At some time while the man was spraying weed killer, water pressure dropped, which resulted in the poison being sucked back into the hose. Later, when he drank from the hose, the poison inside was released with the water. He unknowingly poisoned himself.



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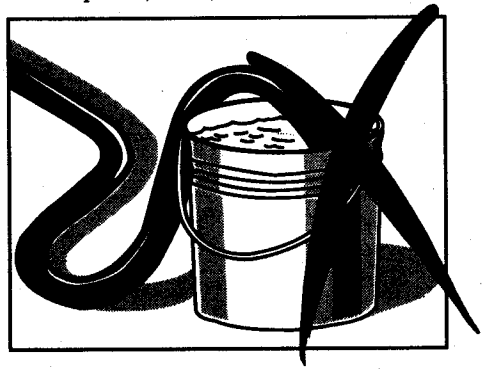
When water flows backward through the water supply system, it is called backsiphonage or backflow. When that water is accidently mixed with hazardous chemicals or bacteria, it is called dangerous!

The danger comes when the hose — any hose — is connected to a harmful substance. If the pressure in a water main drops while your hose is submerged in polluted or contaminated water, then the water (and whatever is in it) could be sucked back into your pipes and your drinking water supply. Water pressure drops are not uncommon. They can happen when firefighters battle a nearby blaze or before a city crew repairs a broken water main.

Some harmful substances you should be wary of are the chemicals used to fertilize your grass or the weed killer used on your lawn. The cleanser used on your kitchen sink could be hazardous if swallowed, as could the bacteria in the water from your wading pool or waterbed.

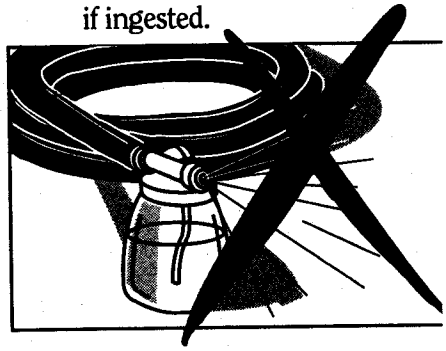
Fortunately, keeping your water safe from these contaminants is easy. Take the following precautions to protect your drinking water:

☐ ***Never***
submerge hoses in buckets, pools, tubs, or sinks.



☐ ***Always***
keep the end of the hose clear of possible contaminants.

☐ ***Do not***
use spray attachments without a backflow prevention device. The chemicals used on your lawn are toxic and can be fatal if ingested.



☐ ***Do***
buy and install inexpensive backflow prevention devices for all threaded faucets around your home. They are available at hardware stores and home-improvement centers.

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American Backflow Prevention
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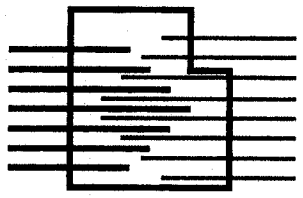
PROTECTING YOUR HOME and DRINKING WATER



American Backflow Prevention Association (ABPA) Utah Chapter

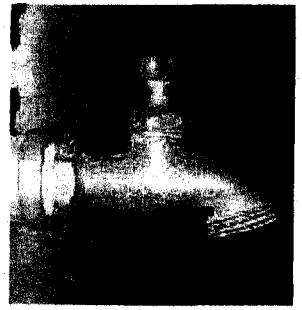
Every hon ıas potential hazards that threaten to contaminate the water system. These hazards are introduced to the water system through unprotected **cross connections**. Cross connections are connections between the public drinking water system and anything else such as: chemicals, gases, other liquids, and other drinking water supplies.

These undesirable substances are brought into the drinking water system by **backflow.**. Backflow is the undesirable reversal of the flow of water. This can occur when the city water system pressure drops below that of the customers home and can siphon contaminants and pollutants back into the water system, like a soda straw effect. This can be caused by water line breaks, fire fighting activities and simply turning on a water tap located elsewhere in the home.

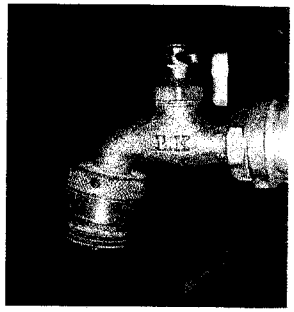
Common water usages where contamination can easily occur are: landscaping sprinkling systems, threaded hose connections and garden hoses.

Threaded Hose C. ıections

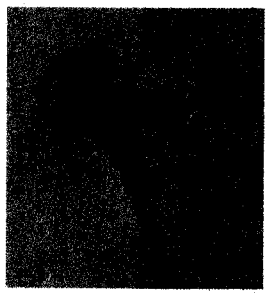
Garden hoses have accounted for almost 80% of the documented backflow incidents in the nation. Garden hoses have many uses such as chemical and fertilizer dispensers, cleaning out sewer systems, filling pools, ponds and animal troughs which can cause problems . Threaded hose connections are easy and inexpensive measures to avoid cross connection. By equipping each threaded hose connection with a **hose bib vacuum breaker** which can be found at most home and garden stores.

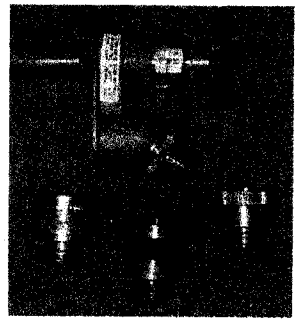


Unprotected hose connection



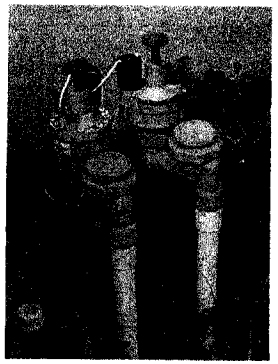
Protected hose connection



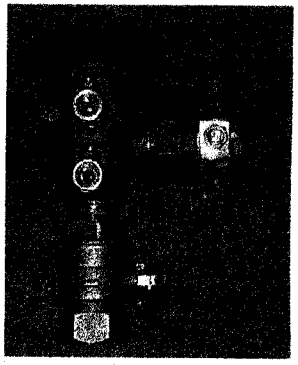


Landscape Sprinkling Systems

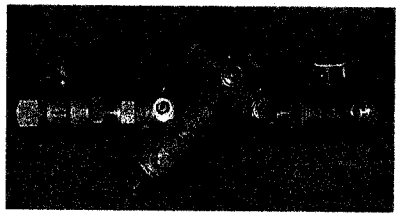
Landscape sprinkling systems also pose another potential problem for water system contamination back flowing into the drinking water system because they are used for fertilizers, weed killers and animal waste. **ALL landscaping sprinkling systems, new or existing, MUST BE equipped with backflow protection** that is approved to protect the health of your family and neighbors. There are various types of backflow prevention devices and assemblies that are approved depending on the style of your landscape sprinkling system. **(Shown Below)**



Antisiphon Valves

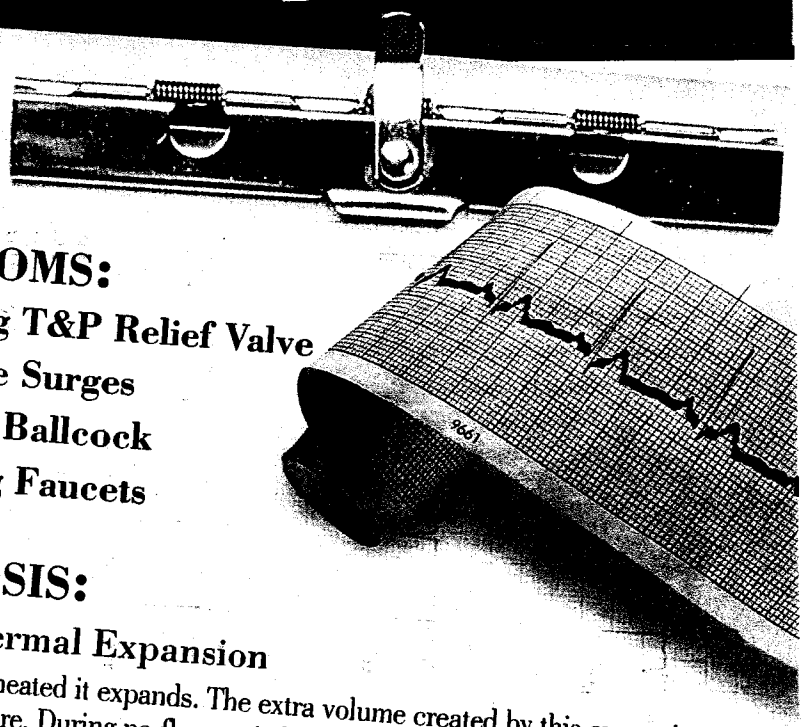


Pressure Vacuum Breaker



Double Check Valve

Are Your Clients' Plumbing Systems Sick From Thermal Expansion?



SYMPTOMS:

- Dripping T&P Relief Valve
- Pressure Surges
- Leaking Ballcock
- Dripping Faucets

DIAGNOSIS:

Chronic Thermal Expansion

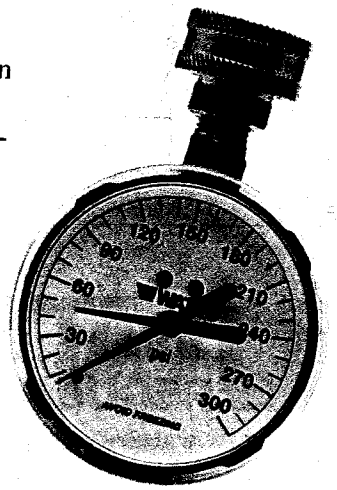
When water is heated it expands. The extra volume created by this expansion has to go somewhere. During no-flow periods, pressure reducing valves, backflow preventers and other valves may create a closed system, thus limiting room for expansion and dramatically increasing system pressure.

Thermal expansion of water in a closed plumbing system can create a number of annoying and potentially dangerous problems. Symptoms include: the build up of unusually high pressure in the plumbing system, pressure surges, and the chronic or continuous dripping of your water heater's temperature and pressure (T&P) relief valve. In addition, dripping faucets and leaking ballcocks are also symptomatic of thermal expansion.

Plumbing codes require these potential safety problems be addressed and Watts offers a wide variety of cures to thermal expansion for potable water applications, detailed on the other side of this sheet.

Now you can Diagnose Thermal Expansion...

with Watts New Model 276H300 Water Pressure Test Gauge. Simply attach the gauge to any hose bibb, or drain connection and leave it on overnight. The gauge's red indicator hand will hold at the highest pressure reading registered during that period, indicating if your system is, experiencing excessive thermal expansion.



WATTS® REGULATOR

Watts has a Variety of Cures for Thermal Expansion Distress

Any product will solve your thermal expansion problems.

Water Containment Solutions

These products allow for thermal expansion while containing thermally expanded water in the plumbing system. These products require no installation of discharge lines or drains.

Series DET-M1/PLT

Expansion Tanks for Water Heaters and Hot Water Supply Systems

Watts Series DET/PLT expansion tanks are designed to absorb the increased volume of water created by thermal expansion. They are pre-pressurized steel tanks with an expansion membrane that prevents contact of the water with the air in the tank. This prevents loss of air to the water and insures long and trouble-free life for the system. These tanks may be used with all types of direct fired water heaters (gas, oil or electric) and hot water storage tanks.

Series DETA

ASME Pressurized Expansion Tanks for Potable Hot Water

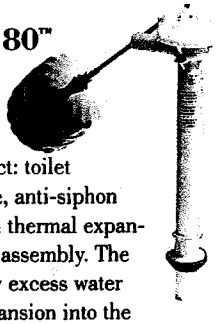
Watts Model DETA tanks are ASME fixed bladder type pre-charged expansion tanks for commercial and industrial potable hot water applications. They are designed to accept the expanded volume of hot water, keeping the system pressure below the relief valve setting. The water is isolated from the air charged by a butyl bladder.

Water Relief Solutions

These products discharge thermally expanded water at a pressure setting that is below the setting of the water heater's temperature and pressure relief valve. They must be piped to a suitable drain or discharge location.

Watts Governor 80™

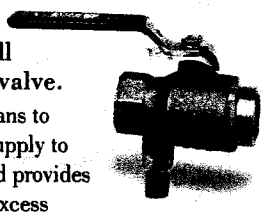
Ball cock with thermal expansion relief valve.



A triple purpose product: toilet tank ball cock fill valve, anti-siphon backflow preventer and thermal expansion relief valve in one assembly. The Governor 80 drains any excess water created by thermal expansion into the toilet tank.

Model BRV

Combination ball valve and relief valve.



Provides both a means to shut off the water supply to the water heater and provides protection against excess water pressure caused by thermal expansion. Sizes ¾" and 1"

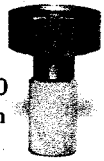
Model 530C

Calibrated pressure relief valve.

Calibrated adjustment feature for setting valve to relief pressure. Adjustable range 50-175 psi.

Model H32

Hose connection pressure relief valve.



The H32 Pressure Relief Valve, set at 80 psi or 100 psi, has a ¾" hose connection inlet for ease of installation. Size ¾"

WATTS® REGULATOR

www.wattsreg.com

USA: 815 Chestnut St., No. Andover, MA 01845-6098; www.wattsreg.com
Canada: 5435 North Service Rd., Burlington, ONT. L7L 5H7; www.wattscanada.ca

ISO 9001 CERTIFIED

©Watts Regulator, 2001

CAUTION

Areas where cross-connections are a concern:

Commercial & Industrial
Bottling Plants
Fire Systems
Heating & Cooling Systems
Mixing Tanks
Paint & Ink Mills
Plating Works
Mortuaries
Printing Plants
Vet Clinics
Hydraulically Operated Equipment

Leisure Areas:
Campgrounds
County Fairgrounds
Parks & Playgrounds
Golf Courses
Swimming Pools
Fountains
Recreation Waterfront Areas
Travel Trailer Connections

Residential
Basement & Outdoors
Hose Connections
Sprinkling systems
Swimming pool
Hot tub or spa
Chemical/photography lab facilities
Livestock waterers or tank fillers

Cross-Connection Hazard

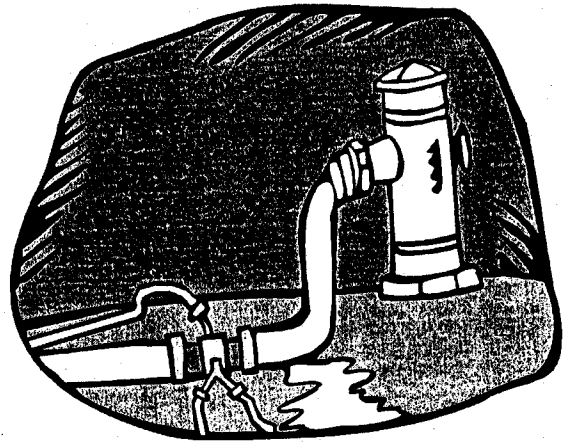
After using a hose attachment to spray his lawn for weeds, Bob disconnected the attachment and took a drink of water from the hose. A short tie later Bob became very ill.

What Happened?
At some time while Bob was spraying the week killer, the water pressure dropped and the poison he was spraying on the lawn was drawn back into the hose. When Bob took a drink from the hose, he drank water mixed with week killer.

If Bob had a **hose bibb vacuum breaker** on his hose connection, he could have prevented this cross-connection.

If you have any questions about Cross-connection and Backflow Prevention, call _____.

Cross-Connection & Backflow Prevention



DEFINITIONS

Cross-Connection
Any actual or potential connection between the drinking water supply and a source of contamination or pollution. All cross-connections need backflow preventers.

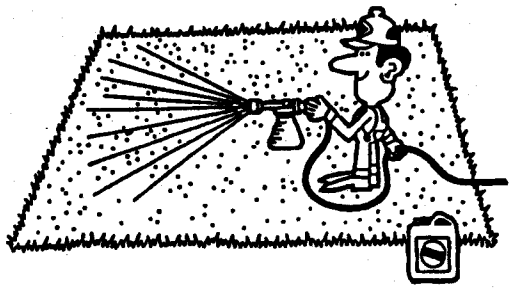
Backflow Preventer
A device or process that prevents impurities or contaminants from being drawn into the drinking water supply. There are **non-testable** and **testable** backflow preventers.

Hose Bibb Vacuum Breaker (HVB) needed on all hose connections, HVB are fairly inexpensive and easy to install. They can be purchased where plumbing supplies are sold. For best results get a "freeze proof, self-draining hose bibb vacuum breaker." **This type of backflow preventer does not need to be tested annually.** (Homes built within the last three years should already be equipped with a Hose Bibb Vacuum Breaker on all hose connections.)

Pressure Vacuum Breaker (PVB) Typically found on underground water sprinkling systems, the PVB is a backflow preventer which is equipped with "test ports." **Plumbing Code Requires annual PVB testing by a Certified Backflow Inspector.**

CROSS-CONNECTION

Potential cross-connections requiring non-testable backflow preventers:

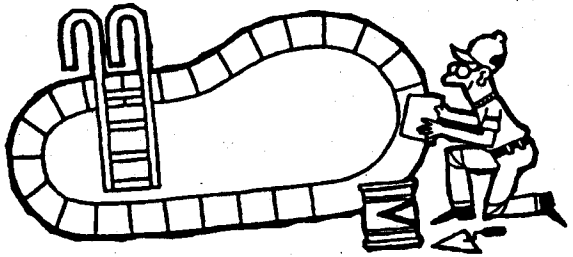


A hose sprayer which uses water pressure to draw chemicals, like weed killer, into a stream of water or a hose submerged in a bucket, pool or sink.

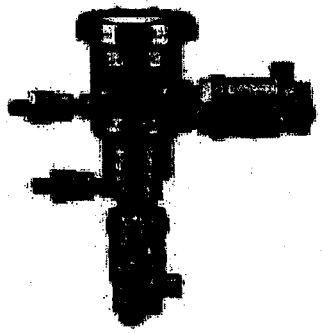
Hose Bibb Vacuum Breaker
In these examples, cross-connections can be prevented by installing a Hose Bibb Vacuum Breaker. The HVB will prevent the contaminant from being drawn back into the drinking water supply if a change in water pressure occurs. **Remember " never submerge a hose in a bucket, pool, tub or sink.**

PREVENTION

Potential cross-connections requiring testable backflow preventers:

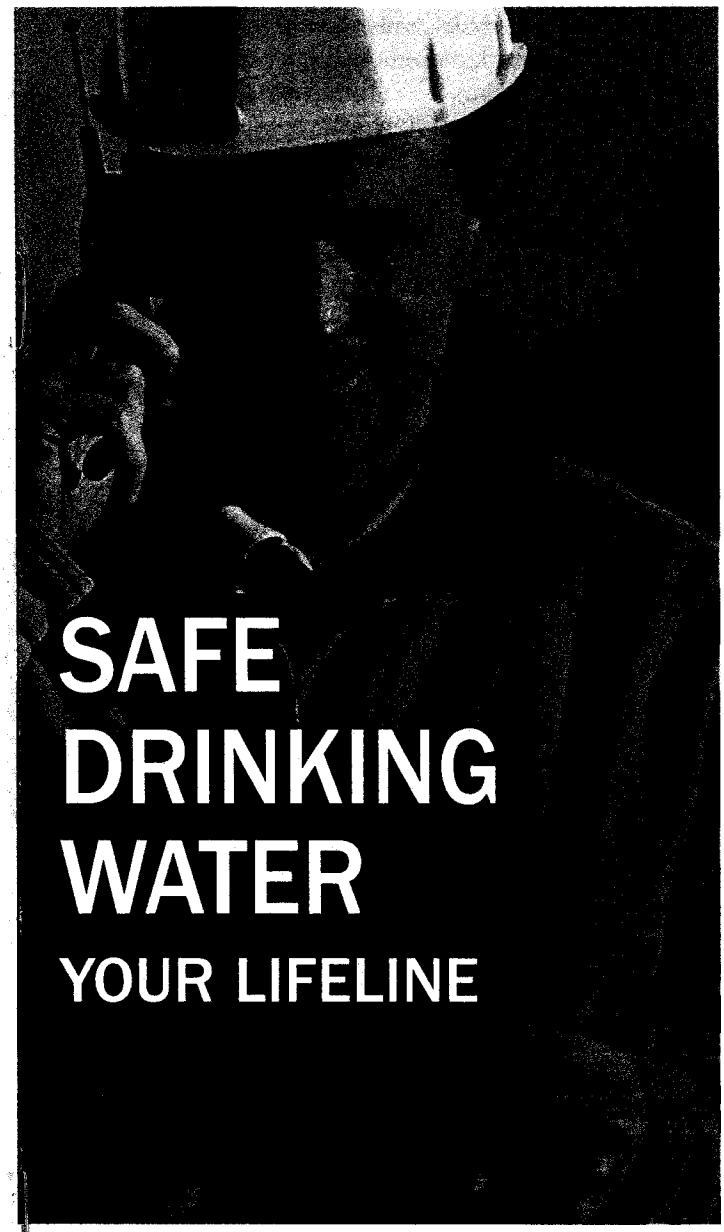


Underground Sprinkling System
or
In-ground Swimming Pool



Pressure Vacuum Breaker
In these examples, a cross-connection can be prevented by a Pressure Vacuum Breaker backflow Preventer either built in or added on. The PVB comes equipped with "test ports." Plumbing Code Requires that a PVB be tested annually. If you have questions or concerns call _____.

Your Water | Your Health | Our Priority℠



SAFE DRINKING WATER

YOUR LIFELINE

American Water Works Association

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Catalog No. 70138

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American Water Works Association

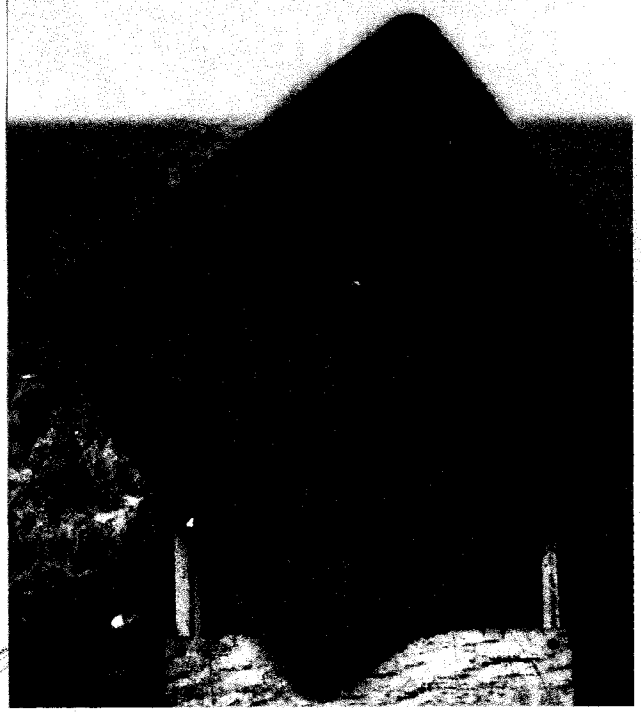
The Authoritative Resource on Safe Water℠

The value of safe drinking water becomes very clear to us when our supply is somehow disrupted. If you don't have water, you can't cook, brush your teeth, take a bath or flush the toilet. And of course, you can't get a refreshing glass of water from your home faucet.

That's why it's important to take control and be prepared. You can take some simple steps to help ensure that you and your family have an adequate supply of safe drinking water to see you through almost any interruption in service. In addition, understanding how your system works can help you make the right decisions in the event of a water supply emergency.

Your Water Supply System

Fresh drinking water is delivered to you 24 hours a day, 7 days a week. Most of the time, you don't even think about it. But how does it get there and what is being done to make sure it's safe?



Your water system consists of several major components: source, treatment, and distribution. Your water source may be a river, lake, or an underground aquifer. The water is treated to make sure that harmful substances are removed. Finally, it is delivered through pipes to your home.

At each step, water supply professionals make sure that the system is working as it should. Specially trained system operators, scientists, and engineers work behind the scenes to continually monitor the entire process so that you have a reliable supply of safe drinking water.

Causes of a Water Supply Emergency

Water supply emergencies are very rare. They are so rare that when they do occur, they often make the newspaper and television news. Possible causes of an emergency might include

- Natural disasters, such as earthquakes
- Water contamination resulting from stormwater runoff
- System malfunctions
- Power outages
- Vandalism
- Human error
- Major water main breaks
- Sabotage/terrorism
- Waste leakage
- Civil unrest

Your Water System and Emergencies

Water utilities take their mission of delivering safe water very seriously and have had emergency preparedness and response plans in place for many years. They work closely with local, state, and federal officials to identify emergency scenarios and develop strategies for cooperative responses. Many have enlisted the support and resources

Water System Assessment

WATER SYSTEM ASSESSMENT

LOCATION	HAZARD	PROTECTION	TESTED
123 EASY STREET	Hoses		
	Trough	High	AIR GAP
	Corral		
138 EASY	Hoses		
	Sprinkler	HIGH	PVB . 2004
269 EASY	Hoses		
	MILKBARN	HIGH	RP 2001
	Trough	HIGH	AIRGAP
25 N 3RD	Hoses		
1050 N. MAPLE	Carwash	High	RP

Test Reports

269 Easy Street Test Reports

Backflow Assembly Test Report

Water System Name: Licking Creek WD File No.: 2 C0015
Location of Assembly: 269 Easy Street - Milk Barn West Wall
Owner of Assembly: Tom Jones
Address: 269 Easy St City: Licking Crk State: CT Zip 12345
Size of Assembly: 4" Model No.: 8254 Serial No.: 24688642
Name of Assembly Manufacturer: Febco

	Check Valve #1	Check Valve #2	Differential Pressure Relief Valve	Pressure Vacuum Breaker
INITIAL	RP PSI Across 5.3	PSI Across CT	Opened at 2.6 # Opened Under 2# or did not open ☐	AIR INLET: Opened at ___ # Opened Under 1# or did not open ☐
INITIAL	DC Closed Tight ☐ Leaked ☐	Closed Tight ☐ Leaked ☐		CHECK VALVE: Closed Tight ☐ Leaked ☐
REPAIRS	Cleaned ☐ Replaced: Disc ☐ Spring ☐ Guide ☐ Pin Feather ☐ Hingepin ☐ Seat ☐ Diaphragm ☐ Other (describe) ☐	Cleaned ☐ Replaced: Disc ☐ Spring ☐ Guide ☐ Pin Feather ☐ Hingepin ☐ Seat ☐ Diaphragm ☐ Other (describe) ☐	Cleaned ☐ Replaced: Disc ☐ Spring ☐ Diaphragm ☐ Seat(s) ☐ O-ring(s) ☐ Module ☐ Other (describe) ☐	Cleaned ☐ Replaced: Air Inlet Disc ☐ Air Inlet Spring ☐ Check Disc ☐ Check Spring ☐ Other (describe) ☐
FINAL TEST	PSI Across Closed Tight ☐	PSI Across Closed Tight ☐	Opened at ___ # Reduced Pressure	Satisfactory ☐

Initial Test By: CTester4 Certification No. 34567 Date: 2-15-06
Repaired By: _____ Date: _____
Final Test By: _____ Certification No. _____ Date: _____

This assembly's INITIAL TEST performance was: Satisfactory ☒ Unsatisfactory ☐
This assembly's FINAL TEST performance was: Satisfactory ☒ Unsatisfactory ☐

I certify the above test has been performed and I am aware of the final performance.
BY: Mary Jones Assembly Owner Representative

Distribution: White - Assembly Owner ☐ Pink - Tester ☐ Canary - Water Utility

Backflow Assembly Test Report

Water System Name: Licking Creek WD File No.: LCD008
Location of Assembly: 269 East St - Mike Barn
Owner of Assembly: Tom Jones
Address: 269 East Street City: Licking Crk State: Ut Zip 12345
Size of Assembly: 1" Model No.: 8259 Serial No.: 24685642
Name of Assembly Manufacturer: Febco

	Check Valve #1	Check Valve #2	Differential Pressure Relief Valve	Pressure Vacuum Breaker
INITIAL	RP PSI Across 5.3	PSI Across CT	Opened at 24# Opened Under 2# or did not open ☐	AIR INLET: Opened at ___ # Opened Under 1# or did not open ☐
	DC Closed Tight ☐ Leaked ☐	Closed Tight ☐ Leaked ☐		CHECK VALVE: Closed Tight ☐ Leaked ☐
REPAIRS	Cleaned ☐ Replaced: Disc ☐ Spring ☐ Guide ☐ Pin Feather ☐ Hingepin ☐ Seat ☐ Diaphragm ☐ Other (describe) ☐	Cleaned ☐ Replaced: Disc ☐ Spring ☐ Guide ☐ Pin Feather ☐ Hingepin ☐ Seat ☐ Diaphragm ☐ Other (describe) ☐	Cleaned ☐ Replaced: Disc ☐ Spring ☐ Diaphragm ☐ Seat(s) ☐ O-ring(s) ☐ Module ☐ Other (describe) ☐	Cleaned ☐ Replaced: Air Inlet Disc ☐ Air Inlet Spring ☐ Check Disc ☐ Check Spring ☐ Other (describe) ☐
FINAL TEST	PSI Across Closed Tight ☐	PSI Across Closed Tight ☐	Opened at ___ # Reduced Pressure	Satisfactory ☐

Initial Test By: C Jersey Certification No. 34567 Date: Jan 31, 2005
Repaired By: _____ Date: _____
Final Test By: _____ Certification No. _____ Date: _____

This assembly's INITIAL TEST performance was: Satisfactory ☒ Unsatisfactory ☐
This assembly's FINAL TEST performance was: Satisfactory ☒ Unsatisfactory ☐

I certify the above test has been performed and I am aware of the final performance.
BY: Mary Ford Assembly Owner Representative

Distribution: White - Assembly Owner ☐ Pink - Tester ☐ Canary - Water Utility

Backflow Assembly Test Report

Water System Name: Licking Creek WD File No.: LC0004
Location of Assembly: 269 Easy St - Milk Barn
Owner of Assembly: Tom Jones
Address: 269 Easy Street City: Licking Crk State: PA Zip 12345
Size of Assembly: 1" Model No.: 825Y Serial No.: 24688642
Name of Assembly Manufacturer: Febco

	Check Valve #1	Check Valve #2	Differential Pressure Relief Valve	Pressure Vacuum Breaker
INITIAL	RP PSI Across 5.3	PSI Across CT	Opened at 2.6# Opened Under 2# or did not open ☐	AIR INLET: Opened at ___# Opened Under 1# or did not open ☐
INITIAL	DC Closed Tight ☐ Leaked ☐	Closed Tight ☐ Leaked ☐		CHECK VALVE: Closed Tight ☐ Leaked ☐
REPAIRS	Cleaned ☐ Replaced: Disc ☐ Spring ☐ Guide ☐ Pin Feather ☐ Hingepin ☐ Seat ☐ Diaphragm ☐ Other (describe) ☐	Cleaned ☐ Replaced: Disc ☐ Spring ☐ Guide ☐ Pin Feather ☐ Hingepin ☐ Seat ☐ Diaphragm ☐ Other (describe) ☐	Cleaned ☐ Replaced: Disc ☐ Spring ☐ Diaphragm ☐ Seat(s) ☐ O-ring(s) ☐ Module ☐ Other (describe) ☐	Cleaned ☐ Replaced: Air Inlet Disc ☐ Air Inlet Spring ☐ Check Disc ☐ Check Spring ☐ Other (describe) ☐
FINAL TEST	PSI Across Closed Tight ☐	PSI Across Closed Tight ☐	Opened at ___# Reduced Pressure	Satisfactory ☐

Initial Test By: CJ Graney Certification No. 34567 Date: 2/6/2004
Repaired By: _____ Date: _____
Final Test By: _____ Certification No. _____ Date: _____

This assembly's INITIAL TEST performance was: Satisfactory ☐ Unsatisfactory ☐
This assembly's FINAL TEST performance was: Satisfactory ☐ Unsatisfactory ☐

I certify the above test has been performed and I am aware of the final performance.
BY: Tom Jones Assembly Owner Representative

Distribution: White - Assembly Owner ☐ Pink - Tester ☐ Canary - Water Utility

Backflow Assembly Test Report

Water System Name: Lickin Creek WD File No.: LC 0003
Location of Assembly: 269 EASY - MILK BARN
Owner of Assembly: TOM JONES
Address: 269 EASY STREET City: LICKIN CRK State: UT Zip 12345
Size of Assembly: 1" Model No.: 825Y Serial No.: 24688642
Name of Assembly Manufacturer: FEBCO

	Check Valve #1	Check Valve #2	Differential Pressure Relief Valve	Pressure Vacuum Breaker
INITIAL	RP PSI Across 5.0	PSI Across LEAKS	Opened at ___# Opened Under 2# or did not open ☐	AIR INLET: Opened at ___# Opened Under 1# or did not open ☐
	DC Closed Tight ☐ Leaked ☐	Closed Tight ☐ Leaked ☐		CHECK VALVE: Closed Tight ☐ Leaked ☐
REPAIRS	Cleaned ☐ Replaced: Disc ☐ Spring ☐ Guide ☐ Pin Feather ☐ Hingepin ☐ Seat ☐ Diaphragm ☐ Other (describe) ☐	Cleaned ☐ Replaced: Disc ☐ Spring ☐ Guide ☐ Pin Feather ☐ Hingepin ☐ Seat ☐ Diaphragm ☐ Other (describe) ☐	Cleaned ☐ Replaced: Disc ☐ Spring ☐ Diaphragm ☐ Seat(s) ☐ O-ring(s) ☐ Module ☐ Other (describe) ☐	Cleaned ☐ Replaced: Air Inlet Disc ☐ Air Inlet Spring ☐ Check Disc ☐ Check Spring ☐ Other (describe) ☐
FINAL TEST	PSI Across Closed Tight 5.3 ☐	PSI Across Closed Tight ☒	Opened at 26# Reduced Pressure	Satisfactory ☒

Initial Test By: C JERNEY Certification No. 34567 Date: 2/10/2003
Repaired By: C JERNEY Date: 2/10/2003
Final Test By: C JERNEY Certification No. 34567 Date: 2/10/2003

This assembly's INITIAL TEST performance was: Satisfactory ☐ Unsatisfactory ☒
This assembly's FINAL TEST performance was: Satisfactory ☒ Unsatisfactory ☐

I certify the above test has been performed and I am aware of the final performance.
BY: Tom Jones Assembly Owner Representative

Distribution: White - Assembly Owner ☐ Pink - Tester ☐ Canary - Water Utility

Backflow Assembly Test Report

Water System Name: LICKIN CREEK WD File No.: LC0002
Location of Assembly: 269 EASY ST - MILK BARN
Owner of Assembly: TOM JONES
Address: 269 EASY STREET City: LICKIN CRK State: UT Zip 12345
Size of Assembly: 1" Model No.: 825Y Serial No.: 24688642
Name of Assembly Manufacturer: FEBCO

	Check Valve #1	Check Valve #2	Differential Pressure Relief Valve	Pressure Vacuum Breaker
INITIAL	RP PSI Across 5.2	PSI Across CT	Opened at 2.5 # Opened Under 2# or did not open ☐	AIR INLET: Opened at ___ # Opened Under 1# or did not open ☐
	DC Closed Tight ☐ Leaked ☐	Closed Tight ☐ Leaked ☐		CHECK VALVE: Closed Tight ☐ Leaked ☐
REPAIRS	Cleaned ☐ Replaced: Disc ☐ Spring ☐ Guide ☐ Pin Feather ☐ Hingepin ☐ Seat ☐ Diaphragm ☐ Other (describe) ☐	Cleaned ☐ Replaced: Disc ☐ Spring ☐ Guide ☐ Pin Feather ☐ Hingepin ☐ Seat ☐ Diaphragm ☐ Other (describe) ☐	Cleaned ☐ Replaced: Disc ☐ Spring ☐ Diaphragm ☐ Seat(s) ☐ O-ring(s) ☐ Module ☐ Other (describe) ☐	Cleaned ☐ Replaced: Air Inlet Disc ☐ Air Inlet Spring ☐ Check Disc ☐ Check Spring ☐ Other (describe) ☐
FINAL TEST	PSI Across Closed Tight ☐	PSI Across Closed Tight ☐	Opened at ___ # Reduced Pressure	Satisfactory ☐

Initial Test By: M JERRET Certification No. 03500 Date: 2/12/2002
Repaired By: _____ Date: _____
Final Test By: _____ Certification No. _____ Date: _____

This assembly's INITIAL TEST performance was: Satisfactory ☒ Unsatisfactory ☐
This assembly's FINAL TEST performance was: Satisfactory ☒ Unsatisfactory ☐

I certify the above test has been performed and I am aware of the final performance.
BY: TOM JONES Assembly Owner Representative

Distribution: White - Assembly Owner ☐ Pink - Tester ☐ Canary - Water Utility

Backflow Assembly Test Report

Water System Name: Licking Creek WD File No.: LC0001
Location of Assembly: 269 East Mill Barn
Owner of Assembly: Tom Jones
Address: 269 East Street City: Licking Cr State: UT Zip 12345
Size of Assembly: 1" Model No.: BZSY Serial No.: 24688642
Name of Assembly Manufacturer: Febco

	Check Valve #1	Check Valve #2	Differential Pressure Relief Valve	Pressure Vacuum Breaker
INITIAL	RP PSI Across 5.2	PSI Across CT	Opened at 2.6# Opened Under 2# or did not open ☐	AIR INLET: Opened at ___# Opened Under 1# or did not open ☐
	DC Closed Tight ☐ Leaked ☐	Closed Tight ☐ Leaked ☐		CHECK VALVE: Closed Tight ☐ Leaked ☐
REPAIRS	Cleaned ☐ Replaced: Disc ☐ Spring ☐ Guide ☐ Pin Feather ☐ Hingepin ☐ Seat ☐ Diaphragm ☐ Other (describe) ☐	Cleaned ☐ Replaced: Disc ☐ Spring ☐ Guide ☐ Pin Feather ☐ Hingepin ☐ Seat ☐ Diaphragm ☐ Other (describe) ☐	Cleaned ☐ Replaced: Disc ☐ Spring ☐ Diaphragm ☐ Seat(s) ☐ O-ring(s) ☐ Module ☐ Other (describe) ☐	Cleaned ☐ Replaced: Air Inlet Disc ☐ Air Inlet Spring ☐ Check Disc ☐ Check Spring ☐ Other (describe) ☐
FINAL TEST	PSI Across Closed Tight ☐	PSI Across Closed Tight ☐	Opened at ___# Reduced Pressure	Satisfactory ☐

Initial Test By: C Jeweer Certification No. 34567 Date: 2/1/2001
Repaired By: _____ Date: _____
Final Test By: _____ Certification No. _____ Date: _____

This assembly's INITIAL TEST performance was: Satisfactory ☒ Unsatisfactory ☐
This assembly's FINAL TEST performance was: Satisfactory ☒ Unsatisfactory ☐

I certify the above test has been performed and I am aware of the final performance.
BY: Tom Jones Assembly Owner Representative

Distribution: White - Assembly Owner ☐ Pink - Tester ☐ Canary - Water Utility

138 Easy Street Test Reports

Backflow Assembly Test Report

Water System Name: Lickin Creek WD File No.: L00009
Location of Assembly: 138 EAST ST So SIDE
Owner of Assembly: Tim LLOYD
Address: 138 EAST ST City: Lickin Crk State: UT Zip 12345
Size of Assembly: 1" Model No.: 008M2QT Serial No.: 3336695
Name of Assembly Manufacturer: WATTS

	Check Valve #1	Check Valve #2	Differential Pressure Relief Valve	Pressure Vacuum Breaker
INITIAL	RP PSI Across ____	PSI Across ____	Opened at ___# Opened Under 2# or did not open ☐	AIR INLET: Opened at 1.8 # Opened Under 1# or did not open ☐
INITIAL	DC Closed Tight ☐ Leaked ☐	Closed Tight ☐ Leaked ☐		CHECK VALVE: Closed Tight 1.8 ☒ Leaked ☐
REPAIRS	Cleaned ☐ Replaced: Disc ☐ Spring ☐ Guide ☐ Pin Feather ☐ Hingepin ☐ Seat ☐ Diaphragm ☐ Other (describe) ☐	Cleaned ☐ Replaced: Disc ☐ Spring ☐ Guide ☐ Pin Feather ☐ Hingepin ☐ Seat ☐ Diaphragm ☐ Other (describe) ☐	Cleaned ☐ Replaced: Disc ☐ Spring ☐ Diaphragm ☐ Seat(s) ☐ O-ring(s) ☐ Module ☐ Other (describe) ☐	Cleaned ☐ Replaced: Air Inlet Disc ☐ Air Inlet Spring ☐ Check Disc ☐ Check Spring ☐ Other (describe) ☐
FINAL TEST	PSI Across Closed Tight ☐	PSI Across Closed Tight ☐	Opened at ___ # Reduced Pressure	Satisfactory ☐

Initial Test By: CJEELEY Certification No. 34567 Date: 5-1-2005
Repaired By: _____ Date: _____
Final Test By: _____ Certification No. _____ Date: _____

This assembly's INITIAL TEST performance was: Satisfactory ☒ Unsatisfactory ☐
This assembly's FINAL TEST performance was: Satisfactory ☒ Unsatisfactory ☐

I certify the above test has been performed and I am aware of the final performance.
BY: Tim Lloyd Assembly Owner Representative

Distribution: White - Assembly Owner ☐ Pink - Tester ☐ Canary - Water Utility

Backflow Assembly Test Report

Water System Name: Lickin Creek WD File No.: LC 0006
Location of Assembly: 138 East So Side
Owner of Assembly: Tim Lloyd
Address: 138 East Street City: LickinCrk State: LT Zip 12345
Size of Assembly: 1" Model No.: 008M2Q2 Serial No.: 3336695
Name of Assembly Manufacturer: Watts

	Check Valve #1	Check Valve #2	Differential Pressure Relief Valve	Pressure Vacuum Breaker
INITIAL	RP PSI Across ____	PSI Across ____	Opened at ___# Opened Under 2# or did not open ☐	AIR INLET: Opened at 1.8 Opened Under 1# or did not open ☐
	DC Closed Tight ☐ Leaked ☐	Closed Tight ☐ Leaked ☐		CHECK VALVE: Closed Tight 1.8 Leaked ☐
REPAIRS	Cleaned ☐ Replaced: Disc ☐ Spring ☐ Guide ☐ Pin Feather ☐ Hingepin ☐ Seat ☐ Diaphragm ☐ Other (describe) ☐	Cleaned ☐ Replaced: Disc ☐ Spring ☐ Guide ☐ Pin Feather ☐ Hingepin ☐ Seat ☐ Diaphragm ☐ Other (describe) ☐	Cleaned ☐ Replaced: Disc ☐ Spring ☐ Diaphragm ☐ Seat(s) ☐ O-ring(s) ☐ Module ☐ Other (describe) ☐	Cleaned ☐ Replaced: Air Inlet Disc ☐ Air Inlet Spring ☐ Check Disc ☐ Check Spring ☐ Other (describe) ☐
FINAL TEST	PSI Across Closed Tight ☐	PSI Across Closed Tight ☐	Opened at ___# Reduced Pressure	Satisfactory ☐

Initial Test By: C Jerney Certification No. 34567 Date: 4-16-2004
Repaired By: _____ Date: _____
Final Test By: _____ Certification No. _____ Date: _____

This assembly's INITIAL TEST performance was: Satisfactory ☒ Unsatisfactory ☐
This assembly's FINAL TEST performance was: Satisfactory ☒ Unsatisfactory ☐

I certify the above test has been performed and I am aware of the final performance.
BY: Tim Lloyd Assembly Owner Representative

Distribution: White - Assembly Owner ☐ Pink - Tester ☐ Canary - Water Utility

1050 North Maple Test Reports

ANYTOWN CITY

June 15, 2006, 2006

Bugs Bunny
XYZ Carwash
555 N 700 W
Anytown, Utah 84000

Dear Mr. Bunny:

Subject: Hazard Assessment Inspection

Our records indicate that you are the owner of a carwash located at 1050 North Maple Street. Anytown City Cross Connection Control Ordinance #81-309 requires that we conduct periodic cross connection hazard assessments of facilities connected to the Anytown City public drinking water system. We have scheduled a hazard assessment inspection for XYZ Carwash for 1:00 PM on July 5, 2006. If this time is inconvenient please call Elmer Fudd to reschedule.

We request that someone from your facility that has knowledge of your operations and the associated water usage participate in the inspection if possible.

Contact Elmer Fudd at 555-5555 if you have any questions regarding this matter.

Sincerely,

J Oak

J. Oakeson
CCC Program Administrator

ANYTOWN CITY

July 6, 2006, 2006

Bugs Bunny
XYZ Carwash
555 N 700 W
Anytown, Utah 84000

Dear Mr. Bunny:

Subject: Hazard Assessment Inspection Report

Elmer Fudd of our staff conducted a hazard assessment inspection of a carwash located at 1050 North Maple Street on July 5, 2006. He was accompanied by Mr. Daffy Duck of your staff.

The results of the inspection are as follows:

1. A Wilkins 1" Reduced Pressure Assembly serial #222990 is located on the supply line to the carwash equipment is correctly installed.

2. A drinking fountain is connected to this supply line down stream of the RP assembly. The drinking fountain must be disconnected from the supply line to the equipment immediately. If the drinking fountain is to be reconnected the connection must be made upstream of the RP assembly.

We will contact you to schedule a follow up inspection to verify corrections have been made. Contact Elmer Fudd at 555-5555 if you have any questions regarding this matter.

Sincerely,

J Oakeson

J. Oakeson
CCC Program Administrator

ANYTOWN CITY

August 25, 2006

Bugs Bunny
XYZ Carwash
555 N 700 W
Anytown, Utah 84000

Dear Mr. Bunny:

Subject: Annual Test of Backflow Assembly

Our records indicate that you have a 1" Wilkins RP assembly, serial #222990 located at 1050 North Maple Street. This assembly is now due for annual testing as per Anytown City Cross Connection Control Ordinance #81-309. This assembly must be tested by a backflow technician certified to test backflow assemblies within 30 days of the date of this letter.

Please submit a completed test report to:

Anytown City Public Works
Attention Elmer Fudd
1000 South Main
Anytown, Utah 84000

Contact Elmer Fudd at 555-5555 if you have any questions regarding this matter.

Sincerely,

J. Oakeson
CCC Program Administrator

ANYTOWN CITY

September 26, 2006

Bugs Bunny
XYZ Carwash
555 N 700 W
Anytown, Utah 84000

Dear Mr. Bunny:

Subject: Final Notice-Annual Test of Backflow Assembly

Our records indicate that you were notified by letter dated August 25, 2006 that the following backflow assembly was due for annual testing: 1" Wilkins RP assembly, serial #222990 located at 1050 North Maple Street.

A completed test report was to have been sent to our office not later that September 25, 2006. As of today we have not received the test report for this assembly. If you have had the required testing completed please forward a copy of the test report to our office. If the assembly has not been tested please make arrangements to do so immediately. To avoid discontinuation of water service to 1050 North Maple Street a completed test report must be receive at our office not later than October 10, 2006.

Please submit a completed test report to:

Anytown City Public Works
Attention Elmer Fudd
1000 South Main
Anytown, Utah 84000

Contact Elmer Fudd at 555-5555 if you have any questions regarding this matter.

Sincerely,

J. Oakeson
CCC Program Administrator