The Northwest CCC Journal

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January 2004 Volume 3, Issue 1

A trade-specific collection of reviews, notations, accounts of meetings, updates and notices of current/ upcoming events. Because of the technical information being disseminated through this publication and together with the announcements, starting with this Issue, "The Newsletter" assumes a new name: ***The Northwest CCC Journal.***

WA DOH works with State Building Code Council on 2003 UPC

The State Building Code Council (SBCC) is the agency responsible for Uniform Plumbing Code (UPC) adoption in Washington. The Council recently approved adoption of the 2003 UPC with amendments specific to Washington, including some related to cross-connection control (CCC).

In October 2003, the Department of Health (DOH) Office of Drinking Water provided comments to the Council as part of the code adoption process. The primary purpose of the inter-agency coordination was to improve consistency between the UPC and WAC 246-290-490. This coordination was a continuation of the working relationship established between one state agency (DOH) and anther state agency (SBCC) in 1996.

The Council proposed retaining in the 2003 UPC, all previously adopted CCC-related amendments to the 2000 UPC. The Council also proposed one new CCC amendment to the UPC. DOH supported adoption of all of the proposed CCC related amendments.

The Council held two public hearings on the 2003 UPC in Spokane and Renton last October, accepting both written comments and verbal testimony. The Council held a work session last November 21rst and decided to approve adoption of the 2003 UPC and all the CCC-related amendments as proposed. The 2003 UPC new requirements will become effective July 1, 2004.

For further information on the Council's UPC adoption process, contact Krista Braaksma at kristab@cted.wa.gov or 360-725-2964.

PACIFIC NORTHWEST
PNWS-AWWA Cross Connection Control Committee
Meeting times/dates vary
Contact: Chuck Fletcher (509) 625-7967
Next meeting is Feb. 23, 2004 - 1PM to 4PM will be at Modern Electric Water Co. 904 N. Pines Rd. in the Spokane Valley. Call Chuck to verify.

Dear Fellow B.A.T.,

As the 2004 Chairman of the Western Washington Cross Connection Prevention Professionals Group (WWCCPPG), I am asking for your help. The BAT forum on March 17th @ 9:00 am at Tacoma Water Department, needs your input to let the Dept. of Health, Dept. of Labor and Industries, and WETRC know of our concerns regarding the BAT occupation.

Please e-mail me:
mclaughlinbackflowtesting@msn.com
write to; The Group
PO Box 94551 Seattle, WA. 98124
ATTN: Dennis.
Please respond by January 30th.

PLAN ON ATTENDING!! It's time to be heard.

Dennis P. McLaughlin

Upcoming CCC Meetings

SRC4 11th Annual Seminar. The time, place and date have been announced. Keep in touch with Denny Lopp at lopko43@msn.com or Bill Roe at mrroe@aimcomm.net to find out specifics. For details, see page 6.

ABPA - Oregon Chapter has set the date of Jan. 22, 2004 for the next Annual Seminar. For more information, go to Page 4.

BAT INSTRUCTOR'S WORKSHOP NOTES

By: Denny Lopp, SRC4

Sight Tube and Bleed Off Valves

While instructing Backflow Assembly Testing (BAT) Refresher Seminars, I still find very few BATs owning and/or using the required "sight tube" and "bleed-off valve" when testing certain DCVAs.

(Continued on page 10)

TRAINING OPPORTUNITIES

OREGON

Clackamas Community College
(503) 657-6958 Ext. 2388
depts.clackamas.cc.or.us/west
Cross Connection Control Inspector Certification
Backflow Assembly Certification Course
Tester Re-certification Course
Tester Re-train/Re-certification Course
Inspector Re-certification

Backflow Mngmt. Inc. 800-841-7689
Cross Connection Control Inspector Certification
Backflow Assembly Tester Certification Course
Backflow Assembly Re-certification
Cross Connection Control Inspector Update

OAWU (503) 873-8353
Cross Connection Inspector Update

Oregon Cross Connection Inspector Subcommittee
(541) 267-3128
Backflow Assembly Tester Re-certification

WASHINGTON

Washington Environmental Training Resource Center
(WETRC) (800) 562-0858; outside WA
(253) 833-9111 Ext. 3369
Backflow Assembly Tester Certification
Backflow Assembly Professional Growth Refresher
Cross Connection Control Exam Review

IDAHO

Bill Thompson United Water Corp. (208) 362-7383
Backflow Assembly Tester Certification
Backflow Assembly Tester Refresher
Cross Connection Control Introduction

Oregon ABPA Quarterly Meetings

Past President of the Oregon Chapter
Lyle Heilman

I want to thank all of those out there that have helped to improve our Oregon Chapter this past year and look forward to seeing you at the seminar in January. We welcome Bill Whiteman as the new President of the Oregon Chapter.

I would like to remind and encourage all members to consider attending or participating in our quarterly workshops. These workshops are designed to help you with problems you may encounter while out in the field. We are considering "Safety" as one of our upcoming workshop topics and possibly another repair class with Jim Purzycki.

Jim was in Portland last year in March and gave a repair class that was well attended. We were fortunate to have available to us Jim's vast knowledge and experience. I would encourage everyone to attend one of his classes; they are full

(Continued on page 3)

Go The Extra Mile When You Can

Flood Hensley, CCC Inspector, Tualatin Valley Water District

There are a few Oregon backflow testers who deserve a "job well done". They have gone out of their way to help some of our senior citizens. In a few cases, their spouse has died and backflow testing is a new and very confusing thing. They simply want to know what it's all about. These testers take the time to explain what the backflow assembly is and why it is important that it works properly. They make personal visits spending a little extra time going over the test procedure. This really reduces the District's workload as we too try to meet with the customer but in many cases time is not on our side.

Another impact these testers have had with our seniors is cost. Unfortunately, some of our seniors have been left with reduced income by high medical bills or the passing of a spouse that has put a hardship on the "extra" things in life. These testers have often reduced their rates and in some cases have not charged at all. The following are those testers we would like to recognize for this endeavor: Bill Whiteman of BWE Backflow Testing & Repair and Roland Beebe of NW Backflow Inspection and Testing Services.

A special "thank you" also goes to Gene Ernster of All Metro Washington County Backflow Testing and Chuck Melton of Accurate Backflow Testing for their work in repairing and testing backflow assemblies at no charge for backflow manufacturers that have assisted the Oregon ABPA chapter over the last few years.

Keep up the good work gentlemen!

If other water purveyors have testers they would like to recognize for special accomplishments, please contact me.

The Journal would like to hear about them, too!

(Continued from page 2)

of information and great tips.

Our Oregon Chapter is having it's **Annual Seminar** again in Wilsonville on January 22, 2004, and want to inform you that the ABPA testing certification will be offered again. Check the seminar registration form for the contact information on the testing schedule.

The Oregon Attorney General has given permission to the Oregon Human Services to change the Oregon Administrative Rules (OAR's). This also is a topic that will be presented at our Annual Seminar in January 2004. The funding issue has not been approved as of this time.

WWCCPPGroup Votes in new Officers

Each year, the WWCCPPGroup holds their Annual Business Meeting in November where new executive officers are elected from the membership. This year Roger Nottage, Chair, automatically moves to Past Chair, and Dennis McLaughlin, Vice Chair automatically became Chair. Dan Miller was elected Vice Chair for 2004.

Dennis McLaughlin, Chair, is the sole proprietor of McLaughlin's Backflow Assembly Service in Seattle.

Dan Miller, Vice Chair has been with the City of Snohomish for 27 years, the last three years as their Cross Connection Control Program Manager.

Roger Nottage, Past Chair is the General Manager for Fruitland Mutual Water Company in Puyallup, WA. and is a waterworks instructor for WETRC. He has been an active member of the WWCCPPGroup since its creation in 1991.

Chris Purdy, Secretary, is co-owner and operator of ABC Water Specialty, Inc. with her husband Bill. She is a BAT and a licensed Specialty Plumber.

Doug Bucklin, retained as Treasurer, is the Cross Connection Control Manager and a Water Quality Specialist for the last 14 of his 20 years with the City of Redmond.

www.backflowgroup.org

STATE HEALTH CONTACTS

IDAHO

CCC Program Manager - Joan Thomas
(208) 373-0275 FAX (208) 373-0409

OREGON

CCC Program Manager - Mary Leverette
(503 731-4002 ext. 232

WASHINGTON

CCC Program Manager - Terri Notestine
(360) 236-3133
Email terri.notestine@doh.wa.gov
State Approved List – Marsha Carlton
(800) 521-0323
BAT Certification – David Kingsley
(800) 562-0858
Operator Certification (800) 525-2536

DOH Cross-Connection Control Guidance Manual Now Available

The Department of Health (DOH) Office of Drinking Water is pleased to announce that the DOH guidance document *Cross-Connection Control (CCC) for Small Water Systems* is now available. The manual is designed to assist public water systems with less than 1,000 connections with CCC program development and implementation, although larger systems may also find the manual to be a useful reference. The manual complements the CCC regulations, WAC 246-290-490.

The guidance document can be obtained as Publications # 331-234 on the Drinking Water website. The manual is available in either Acrobat PDF format (entire document) or Microsoft Word format (chapters and appendices as separate files) at the following link:

http://www.doh.wa.gov/ehp/dw/Publications/CCC_Guidance_Document.htm

Because of the length of the document, DOH is encouraging systems to download the manual from the website. However, for systems or other interested parties without Internet access, hard copies can be obtained from DOH's Training and Outreach Section by calling Abigail Hughes at (360) 236-3164.

If you have any questions or comments about the manual, contact Terri Notestine via e-mail at Terri.Notestine@doh.wa.gov or by phone at (360) 236-3133.

Upcoming Meeting for Oregon Chapter ABPA
Jan. 17th - Exec. Meeting

American Backflow Prevention Association Oregon Chapter Annual Seminar

January 22, 2004 Wilsonville, OR

A one-day seminar will be held at the HOLIDAY INN SELECT: 25425 SW 95th Ave, (I-5 EXIT 286) Wilsonville, OR from 8:00 a.m. to 5:00 p.m.

Call (503) 682-2211 for hotel reservations.

Special room rates are available, just mention ABPA. (0.6 CEU's available)

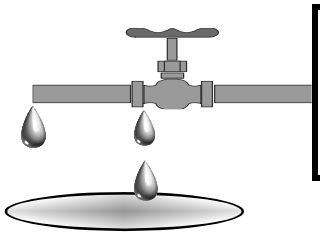
Registration after January 10, 2004 $165.00

Registration cost includes all day seminar, access to vendor displays, lunch and breaks.

Registrations will also be accepted the day of the seminar starting at 7:00 a.m. For additional information, call Ernie Castro at (503) 691-3098 or Kevin Schmeltzer at (503) 848-3041.

We will be having the ABPA Testers Exam and proctor training again, this year. Best contact for more info on this is Ernie Havlina: (323) 776-2764 OR Chuck Bodine: (541) 341-1853.

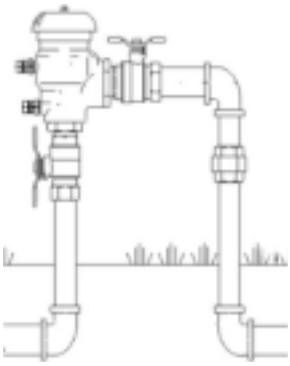
This is the place to find out what's going on in Oregon regarding cross connection!



BACKFLOW ASSEMBLY REPAIR
Part 5

By: Jim Purzycki, BAVCO

In our previous articles we have discussed how the RP and DC operate. It is important to understand how they operate in order to know how they are to be repaired. In this article we will discuss how the **Pressure Vacuum Breaker** (PVB) and the **Spill Resistant Vacuum Breaker** (SVB) operate.



The PVB consists of an inlet and outlet shut off two test cocks, a check valve and air inlet component. The normal flow of water goes from the inlet into the check valve. The check valve is designed to hold 1 PSI in the direction of flow similar to the check in a DC. The check valve opens and water travels past the check valve and cause a poppet to travel up an air inlet guide. The poppet will compress an air inlet loading (its not always a spring) which is designed to generate a load of at least 1 PSI. The air inlet is pressurized closed for the normal flow of water and is designed to open when the force from the air inlet (1.0 PSI Minimum) is greater than the water pressure in the area after the check valve. The PVB is designed to prevent backsiphonage only and requires the PVB to be installed 12" above the highest point of use or piping on the downstream of the assembly.

Conditions that can cause the check in a PVB to perform below its optimum level are many. The cause of check failure is due to the failure of the disc to seal with adequate pressure against the check seat. The most common causes of failure is dirt and debris between the disc and seat. Another common problem is disc degradation where the disc will not seal against the check seat. The third common cause of failure has to do with the alignment of the check spring. Many models require the spring to be installed with a spring retainer that if not properly installed will exert a side pressure on the spring causing it not to deliver the proper load to the check valve.

The normal causes of failure of the air inlet happens when the air inlet will not fully unseat itself when the water pressure in the body past the check valve is below 1.0 PSI. One cause of air inlet failure happens when the air inlet disc adheres to the air inlet seat. The disc can adhere to the air inlet seat when temperature conditions or water quality conditions cause a bonding. Many times the canopy that covers the bonnet is missing which can also cause direct sunlight onto the air inlet also causing a problem with deterioration from the ultra violet rays of the sun. On some models of PVB's the air inlet spring can easily be removed or inserted in such a way as to lower its loading below the 1.0 PSI minimum requirement. There is one brand of PVB that does not use a mechanical spring in the usual sense but rather a fold of rubber on the poppet generates the load and if you are not familiar with this brand you could erroneously assume the spring is missing.

Sometimes the air inlet poppet will not seal on the air inlet seat completely and will leak. This unwanted discharge from the air inlet can be caused by several reasons. The usual is when some dirt or debris is located between the air inlet poppet disc and the air inlet seat. If the disc becomes damaged from this debris or becomes worn for other reasons, it could inhibit its ability to seal. Another cause of leakage can happen if the air inlet guide is damaged in such a way as to

(Continued on page 6)

(Continued from page 5)

not allow the air inlet poppet to seat squarely on the air inlet seat.

There is a variation of the PVB called an SVB. The SVB has an inlet and outlet shut off, a check valve and an air inlet valve, a single test cock and a bleed screw. The SVB performs similarly to the PVB except when the SVB is initially pressurized. The normal path of water for a PVB is for water to enter the body, then open the check valve, proceed past the check valve and seal the air inlet. The SVB is a little different. Water enters the SVB and instead of causing the check valve to open first, as in a PVB, the air inlet closes before the check valve opens. This is accomplished by the air inlet having a lighter loading (1.0 PSI minimum) than the check valve. Water does not have to travel past the check valve to pressurize the air inlet as it does in the PVB. For this reason the SVB will not discharge from the air inlet on initial start up. Once the SVB is pressurized, the SVB will perform similar to a PVB. The cause of failure of a SVB are similar to those of a PVB as we discussed above.

In order to repair any assembly RP, DC, PVB or SVB, it is important that the repair technician first understand how the assemblies are supposed to work so that when they are not working the problem can be properly identified. The purpose of the repair process is to return the assembly back into its original factory specifications.

11th Annual SRC4 Seminar

Make plans now to join us for our 11th Annual Seminar.

The Seminar will be on **February 24th, 2004**

We will present PART 2 of "What Should They Have Done?" , an in-depth discussion of a hypothetical case where all levels of professional backflow prevention are put to the test. In Part 1, we presented a scenario where testers and specialists, managers and owners were faced with defining their responsibility to act upon knowledge of a specific CC hazard. This promises to be extremely informative to all.

Back by popular demand, a split session on backflow assembly testing will be offered to the first 30 who sign up.

Location: Mirabeau Park Hotel, 1100 N. Sullivan Rd. Spokane Valley, WA (I-90 @ Exit 291B). SRC4 room rate is $79 for a single occupancy You must ask for this discount. Their phone number is 509-924-9000

Call or Email us for more information:
lopko43@msn.com or mrroe@aimcomm.net
(509) 456-7273

Watch for the Flyer in the mail.

WE REVISIT THERMAL EXPANSION

By: Denny Lopp, SRC4

In the Aug. 2002 issue of The Newsletter, an article was written by Mike Dochow of J.P. Harris & Associates, alerting readers to the dangers of thermal expansion in "closed systems."

As Mike pointed out, water expands in volume as temperature rises. The extra volume caused by **thermal expansion** must go somewhere. If not, the heated water creates an increase in pressure. This is the principle of a steam engine.

The increase in pressure from **thermal expansion** can be prevented by water flowing back into the public water system. However, when a check valve, pressure-reducing valve or backflow preventer is installed in the service line, a "closed system" exists. In these situations, provisions must be made for **thermal expansion**.

Protection from **thermal expansion** is provided by the installation of a **thermal expansion** tank in the plumbing system. Additional protection required in the system is a properly installed and functioning temperature and pressure relief valve (T&P). This is installed in the top portion of the hot water tank.

This T & P valve is the primary safety feature for the water heater.

The *temperature* portion of the T & P valve is designed to open and vent water to the atmosphere whenever the water temperature within the tank reaches approximately 210^0 F. Venting allows cold water to enter the tank, thus reducing the water temperature.

The *pressure* portion of a T&P valve is designed to open and vent to the atmosphere wherever water pressure within the tank exceeds the pressure setting on the valve. The T&P valve is normally preset at 125 psi or 150 psi. The pressure portion of the T&P valve is not intended to take the place of an expansion tank.

Water heaters installed in compliance with the current plumbing code will have the required T&P valve However, many times when the hot water tanks are replaced, a T&P valve is not installed or, for one or more reasons, may not operate as designed.

The thermostat of the water heater normally maintains the water temperature at about 130^0 F. If the thermostat fails to shut off the heater, the temperature of the water will continue to increase. If the water temperature increases to more than 212^0 F, the water within the tank becomes "super heated". When this super-heated water is suddenly exposed to the atmosphere when a faucet is opened, it instantly flashes into steam and a violent reaction may result. If a hot water heater should rupture containing super-heated water, an explosion equaling several sticks of nitro glycerin could occur.

When water purveyors require a check valve, pressure reducing valves or approved backflow protection on a customer's water service, they need to alert the customer to the importance of a properly installed and operating T & P valve and options for controlling **thermal expansion** such as a **thermal expansion** tank**.**

The PNWS AWWA Cross Connection Control Committee offers a brochure designed to convey this information to the purveyor's customers. It can be downloaded from a computer at no cost.

This brochure can become a valuable asset of the water purveyor's Public Information Program. The brochure can be downloaded from the SRC4 website: www.src4.org.

HOW A TEST AND REPAIR CAN LEAD TO A MULTI-MILLION DOLLAR LAWSUIT

Reprinted from ABPA News, Vol 16, Issue 16, by permission.

It was a very warm and sunny day for December and I had finished my daily routing of testing backflow assemblies and some office work, when a very good associate from a water district called and informed me that there was a flood at a medical facility. At this time, I had no idea that we had any involvement, only that we had repaired and tested a double-check assembly at that facility seven months prior to the incident. Speculation remained as to what was the original cause of the damage and later it became clear that the double-check valve discharged the water. It was two months later when that same facility's attorney notified my company that we were named as a defendant in a multi-million dollar damage suit.

My company initially tested the 8-inch double check assembly in question upon installation, for the fire suppression contractor in July of '99. In May of 2000, we were contacted by the facility's personnel who stated the assembly had failed its mechanical test and requested that we repair and retest the assembly. Another company's technician, who does not do repairs, reported the failure of the device. Upon the initial test, our technician found that both checks did not hold the minimum required 1 PSID in the direction of flow. Upon removal of the check assemblies, he discovered a large amount of rust and debris on each check clapper. He cleaned and flushed out the debris from the assembly the best that he could with the drainage that was available. Both check assemblies had to be replaced, because there had been significant damage from the debris. The device then retested with acceptable readings. Upon completion of the repair and test, he observed that there was no leakage from the test ports or the cover.

This medical facility was in the process of expanding and remodeling. Part of that expansion was modification of the fire suppression system and the addition of a fire pump. The existing system was very old and had been added onto over the years. The owner hired a fire suppression contractor to hydraulically pressure test the complete system during this remodel. The hydraulic testing was to ensure the piping was adequate to handle the installation of the new fire pump and the increase of pressure.

Testing of the complete fire suppression system started during the first week of November 2000. On the morning of December 21, 2000, the fire suppression contractor personnel met with the owner's representative at the basement fire riser room to conduct the hydraulic pressure test of the main riser to the facility. The fire suppression personnel started to set up their pump and equipment to conduct the test which included the 8-inch double check in the basement. However, the owner's representative redirected the fire contractor personnel and stated that he wanted to make sure the total piping system held 200 PSI including the backflow assembly. The fire suppression contractor personnel stated that this test should be conducted at the lowest point of the system, but the owner's representative insisted the contractors move their equipment to the 6th floor and connect their equipment to the piping. The owner's representative wanted the total system tested including the backflow preventer, and did not want any isolation valves open.

During this test, security was provided by the owner and maintenance personnel on each floor, including the basement fire riser room with the 8-inch backflow prevention assembly. However, later during further questioning and depositions, the owner's representative could not name the personnel or describe where they had been located. Upon raising the pressure in the piping of the fire suppression system, one of the contractor personnel and the owner's

representative started to descend the floors looking for leaks. During this time, another fire suppression contractor who was monitoring the pump radioed the other two and stated that he had lost pressure around 150 PSI. He turned off the pump. At that point, the public address system announced that there was a lot of water in the basement. The two personnel immediately descended to the basement where they saw 6 to 12 inches of water in the hallway.

The size of the fire riser room was approximately 8 by 12 feet with the access door swinging inward. Two of the walls of the room were concrete, while the other two were steel studded and sheet rock. With the door closed, the water rose to such a level that one wall with the steel studs gave way, causing water to pour into the adjacent room, which contained the facility's telephone and computer equipment.

The water department was notified to turn off the water at the street. Unfortunately, the word "sprinkler" is used when referring both to fire sprinkler and irrigation systems. Precious minutes were lost while the fire department and the water department determined which line to shut off. Finally, after approximately forty-five minutes, a fireman entered the room where the backflow assembly was located and turned off the #1 valve, which in turn, stopped the discharge of the 8-inch diameter of water flowing out at 90 PSI. As a post-review of procedures, the water district now has made available to some facilities a listing of their major shut-off valves.

Upon initial inspection of the backflow assembly, by a water district staff member, who is also a certified technician, the cover plate, gasket and connecting flange had been blown off. The #2 check was loose. The #1 and #2 check assembly o-ring seals were missing; one was found in the assembly and the other was found on the floor. On the #1 check assembly, the clapper and the cam arm were broken off at the seat. The cam arm showed that it had been bent, as if it had been used as a lever to install or remove the check assembly.

In reference to the repair and test in May 2000, which showed acceptable reading of the checks, inferring the check assemblies were installed correctly, as per the manufacturer's specification. The check o-rings could not come out of their grooves and if the cover, gasket and clamps were not installed correctly, there would have been leakage of water. However, nothing was detected for 7 months. Needless to say, someone else had tampered with this device, but was never admitted to in any of the depositions. However, because our company was last to file a test report with the water district, we were held liable.

Five days before the beginning of trial, the insurance company negotiated a settlement with the owner for 6 percent of the total loss incurred to the facility. This did not include the hundreds of thousands of dollars of expenses that were accrued by the insurance investigators, attorneys, engineering laboratories for evaluation of the failed backflow assembly and expert witnesses for depositions. For the last 30 months, there have been many sleepless nights, phone calls, and hours of depositions administered to the technician and myself. Also, there is no way to calculate the impact this has had on our business.

As certified technicians, we all have been told that we are testing a backflow prevention assembly to make sure that it meets the manufacturers and the approval agency specifications at the time of our test. We have no control of the quality of water or any other

(Continued on page 10)

Spokane Regional Cross Connection Control Committee

WORKING TO PROTECT CLEAN, SAFE DRINKING WATER

(Continued from page 9)

item that might come through the assembly that may cause it to fail. This was my mode of thinking, as I encourage all of you who are testing backflow assemblies. When testing a backflow assembly, you are libel for its performance until it is tested again or until another tester files a report with the proper authority.

The most important lesson I learned from this experience is to test and repair each and every backflow assembly to the best of our ability and have a network of other expert technicians that you can draw on, along with manufacturers' representatives. Repair seminars and hands-on experience are critical for anyone repairing a device. Another item that is most helpful is belonging to organizations such as the ABPA and the USCFCCHR. These organizations are very valuable for their wealth of knowledge and expertise.

In conclusion, the most important item is having insurance that is especially designed for your type of profession, which provides at least $4 to $6 million dollars of coverage annually. This experience can happen to the most unsuspecting tester at any time; whether you are annually testing 10 devices or thousands. Insurance is enormously important for your own peace of mind.

(Continued from page 1)

The use of this equipment is required by the Manual of Cross Connection Control 9th ED. published by FCCHR at USC. At the present time, the USC procedures are the only ones approved for use in the Pacific Northwest.

This equipment will also improve the testers' ability to diagnose failures and improve their skill to accurately determine PSID across check valves. Owning and using this equipment will afford the tester with extra legal protection and increase professionalism of their trade. Many testers use this equipment when testing **all** DCVA.

If a tester does not use this equipment when required and the CCC Manager knows it is required to test a particular assy, the tester risks the possibility of the Manager not accepting his/her present and future test reports. When a tester uses this equipment it should be noted on the test report.

For more on using the "sight tube" and "bleed-off valve", consult USC 9th Ed. (or soon to be 10th Ed) Manual or State approved test procedures.

This equipment can be fabricated or purchased from many backflow assembly parts suppliers, manufacturer representatives or local CCC organizations such as SRC4. For availability and cost of SRC4 "sight tube" and "bleed-off valve", contact lopko43@msn.com.

Cross Connection Control Committees

WASHINGTON

Spokane Regional Cross Connection Control Committee (SRC4). 3rd Tuesday 11:30am – 1:30pm
Contact: Denny Lopp (509) 456-7273
Email lopko43@msn.com

Western Washington Cross Connection Prevention Professionals Group (The Group). 3rd Wednesday 10:00am-12:00noon
Contact Roger Nottage (253) 848-5519
email fruitlandwater@qwest.net

OREGON

Oregon Chapter ABPA
Bill Whiteman, President
Contact: (503) 625-4083
Email: gabi38@aol.com

Are Your Dues Paid Up To Date?