

inside: **field test sites** | **online store** | **unofficial statements** | **undersizing... and more**

Cross Talk

Spring 2015

The USC Foundation's Approval Program is the only approval or listing agency that requires a field evaluation prior to an assembly being listed or approved. After an assembly successfully completes the laboratory evaluation it is required to undergo a one-year field evaluation. It is the responsibility of the manufacturer to locate appropriate field test sites, which must be approved by the Foundation. When the manufacturer is having difficulty locating sites, the Foundation staff works with the manufacturer of the assembly to locate appropriate sites. Currently, manufacturers are having difficulty locating enough appropriate field test sites.

semblies to locate appropriate sites and work with the owners in arranging installation. But recently it has been difficult for manufacturers to locate enough acceptable sites and the



Looking for Field Test Sites

After a specific size and model of assembly successfully completes the laboratory evaluation, three of each size, model and orientation are installed in the field. Although the Foundation approves the field test sites, it is the responsibility of the manufacturers of the as-

sembly to locate appropriate sites and work with the owners in arranging installation. But recently it has been difficult for manufacturers to locate enough acceptable sites and the

The Foundation is asking anyone who may be interested in participating in offering field test sites to contact the Foundation laboratory. Participation with the USC Foundation by offering field test sites has its benefits.

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Foundation

Membership

What's included with a USC Foundation Membership

Membership Discounts

- 25% off Manual Orders
- 20% off Training Courses
- Training Tools are also discounted

Other Benefits

- Free copy of the Manual of Cross-Connection Control, each time a new edition is published
- E-mail notification every time the electronic copy of the *List of Approved Backflow Prevention Assemblies* is updated
- Updates to the *List of Approved Backflow Prevention Assemblies* mailed quarterly
- Special Notice mailed when needed
- New *Cross Talk* mailed quarterly

Members are encouraged to call the USC Foundation with technical questions. The USC Foundation's Engineering Staff is available to assist Members with the various aspects of field testing backflow preventers, installing backflow preventers and administering their cross-connection control program.

Below is a list of those who have become members of the USC Foundation since the last *Cross Talk*.

Andy's Place

Bill Olguin

Garcia Plumbing, Inc.

Home Depot U.S.A., Inc.

Hope, City of

Hydrocorp

Jacques Walker

Kawela Plantation Homeowners' Association

North Central Mechanical Services

Samsung

San Diego County Water Authority

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USC Foundation Online Store

After a two-year hiatus the USC Foundation is happy to announce that its redesigned online store is now open. Foundation Members may now conveniently shop for manuals, training courses, seminars and other training tools.

The redesigned store offers members an option to create an account within the store. Creating an account will provide customers with tracking information for each order placed, keep a history of all past orders and make placing an order simpler by managing address information so repeat customers do not have to re-enter billing or shipping information every time.

In addition, Foundation Members will now receive discounted pricing immediately after signing up for an account and verifying membership. **And, for the first time ever Foundation Members will be able to renew their membership via the online store.**

All current members need to do is choose the 'Membership' category and select which type of membership is being renewed. Once the order is complete, please type the renewal invoice number in the 'order notes' section and submit the note.



To take advantage of the discounted pricing all members are encouraged to visit the online store (usc-foundationstore.com) and set up an account. After setting up an account, please contact the Foundation office via email (fccchr@usc.edu) to notify Foundation staff that an account has been created. The Foundation then will set the account status to Member and the account will then receive discounted pricing. Anyone paying a membership renewal online will have their account status set to Member automatically.

The University of Southern California takes customer privacy very seriously. The Foundation's online store delay was due to the University's strict security requirements. Customers can rest assured that the online store meets all of the University's requirements.

Please contact the Foundation office for questions regarding the online store or converting an existing account to membership pricing. ■

Clarification Regarding USC Foundation Unofficial Statements

In the March 2015 issue of Backflow Prevention and Plumbing Standards magazine, the USC Foundation was mentioned as having “unofficially acknowledged” certain information regarding backflow protection and residential fire sprinkler systems even though the Foundation *DOES NOT* make “unofficial statements.”

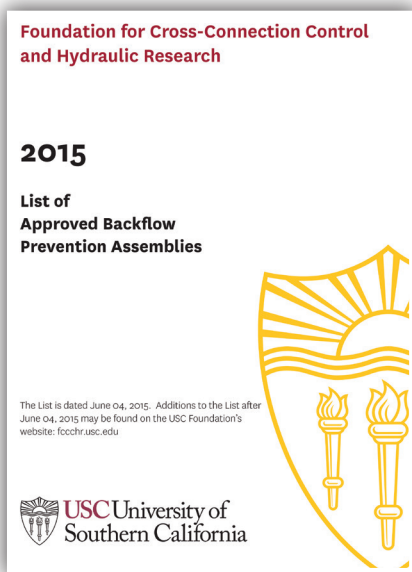
The statement in question reads, “They [USC Foundation] have unofficially acknowledged that residential sprinkler systems piped in potable water piping material do not require backflow protection, whether installed as a multipurpose or standalone system.”

Regrettably, that statement has raised some questions regarding the Foundation's position on backflow prevention assemblies on residential fire sprinkler systems, mainly because this statement is contradictory to the USC Foundation's actual position.

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Using the USC List to Verify Appro

The USC List of Approved Backflow Prevention Assemblies is a valuable tool for many involved in backflow prevention and cross-connection control. After successfully completing the USC Foundation's Approval Program, the backflow prevention assembly is added to the USC List and the manufacturer is issued a Certificate of Approval from the Foundation noting the date the assembly was added to the USC List. However, the Certificate of Approval does not confirm the current approval status of an assembly; only the USC List shows the current approval status of an assembly.



The USC List is updated regularly with new assembly additions and renewals. It is on the USC List where an assembly's current approval status may be verified.

On the printed copy of the USC List the first notice reads:

NOTICE REGARDING RENEWALS:

The original Certificate of Approval identified by the Edition of the Manual and the Approved date shown in this list—is valid as of the date of this list, only if the original or renewal date shown hereon is within three (3) years of the date of this list. The responsibility to request a renewal of an

Approval is that of each manufacturer. The USC Foundation retains the right of determining the extent of re-evaluation required before renewal is granted. Certificates of Approval are not recalled for the purpose of updating the effective date. This revision of date is only published via the current List of Approved Backflow Prevention Assemblies.

Following the initial approval, all assemblies on the USC List are subject to renewal every three years. And, if granted, the renewal date appears on the USC List in the column titled 'Renewed.' Certificates of Approval are not updated with the latest renewal date. Since, the Foundation does not print renewal certificates, a manufacturer will only have a certificate from its initial approval as many as 10, 15 or 20 years ago.

For administrative authorities that require Foundation approved assemblies to be installed in their jurisdictions it is important to remember that the USC List and not the Certificate of Approval confirms the current approval status of an assembly.

Updating the approval status of the assemblies via the USC List allows the Foundation to have more control over the approval of assemblies.

For example, a newly approved assembly has three years before it is up for renewal. If within those first three years the company is sold and the new owner decides to make changes to the assembly, the Foundation can immediately remove that assembly from the USC List. But if an administrative authority seeks out the Certificate of Approval instead of referencing the

Size: 12	Orientation:
Manual: 9	0.25% Pb:
Approved: 22-Feb-2011	Renewed:
Shutoffs: (ll),mm,oo	
<hr/>	
Type: DC	Manufactu
Size: 4	Orientation
Manual: 8	0.25% Pb:
Approved: 05-May-1995	Renewed:
Shutoffs: (tt),ee,ff,gg,hh,ll,mm,oo,pp,uu,ccc,ddd,ffff	
<hr/>	
Type: DC	Manufactu
Size: 6	Orientation
Manual: 8	0.25% Pb:
Approved: 05-May-1995	Renewed:
Shutoffs: (tt),ee,ff,gg,hh,ll,mm,oo,pp,uu,ccc,ddd,ffff	

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USC List, the administrative authority may mistakenly assume the assembly is still approved even though any modifications to a Foundation approved assembly invalidates the approval.

Model: VU Meters: Yes Date: 22-Feb-2014	Meters: Spare Parts Only: No Bypass:
Model: 2000SS-M Meters: Spare Parts Only: No Bypass:	Model: 2000SS-M Meters: Spare Parts Only: No Bypass:
Model: 2000SS-M Meters: Spare Parts Only: No Bypass:	Model: 2000SS-M Meters: Spare Parts Only: No Bypass:

The last several years the Foundation has worked on making the USC List widely available. Anyone can visit the Foundation's website and download a copy of the USC List in a variety of formats, which include using the USC List Web App. One may also purchase a hard copy

of the USC List, which is updated every year. And, by making the USC List widely available it makes it easier for an administrative authority to verify an assembly's approval status via the List instead of requesting a copy of the Certificate of Approval that may not be current from the manufacturer. ■

clarification...: continued

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The Foundation's official and only position may be found in the Autumn 2011 issue of *Cross Talk*. In the issue the Foundation states that a residential fire sprinkler system that is plumbed with potable piping *AND* is a flow through system would not need backflow protection. A standalone system, were the water could become stagnant would need a double check valve assembly.

The Foundation's official positions on many issues may be found in *Cross Talk*. Remember, all previous issues of *Cross Talk* may be found on the Foundation's website dating back to 1967. And, for additional clarification on any issues please feel free to contact the Foundation office. ■

USC List 'Notes' Field

The *USC List of Approved Backflow Prevention Assemblies* includes a great deal of information regarding each approved assembly. For example, approved installation orientation, date of approval and whether the assembly meets lead free requirements are all found on the USC List. One piece of information that may be overlooked is the 'notes' field. Even though not every assembly has information in the 'notes' field, it may include vital information pertaining to a USC Approved assembly.

The Foundation makes the USC List available in a variety of formats on its website and for purchase. Locating the 'notes' field on the USC List varies depending on the format. The most common format where the 'notes' column is overlooked is the Excel version of the USC List. Since the Excel version of the USC List contains a large amount of information many computer screens cannot display all of the information at once. So scrolling across the USC List will display the 'notes' field, which is the furthest right column.

On all other formats of the USC List, the 'notes' field is displayed prominently.

The 'notes' field includes information like spool and manifold dimensions, serial numbers of assemblies specifically approved and information about replacement parts or markings on the assemblies.

Recently, the Foundation improved the way assemblies that have changed model designations are listed on the USC List using the 'notes' column.

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Undersizing Backflow Prevention Assemblies

When a tester arrives at a field test site location and finds a water meter that is larger than the backflow prevention assembly installed upstream of the assembly, a tester may question its installation. This type of installation is referred to as undersizing a backflow prevention assembly. Undersizing assemblies may be common in some jurisdictions, which raises questions whether the assembly can be effective in this type of installation.

If the water line feeding a property includes a 3-inch water line with a 3-inch water meter, a tester would expect to see 3-inch assembly installed. But some installations may have a 2-inch assembly instead.

The flow rate through the 2-inch assembly could exceed its rated flow. The higher velocity of water through the assembly may damage the assembly. This is not likely to occur if the size of all the piping downstream of the assembly is 2-inches or less. However, a 3-inch meter would indicate that the property owner expects to use up to 320 gallons per minute, which is the rated flow of a 3-inch water meter (per AWWA Standard C702, Compound Meters) and a 3-inch backflow preventer (Table 10-1 Manual of Cross-Connection, 10th Edition).

A 2-inch assembly and 2-inch water meter are both rated at 160 GPM—half the rating of the 3-inch size. If a 2-inch assembly was installed on a 3-inch line with a 3-inch water meter and the water usage was in excess of the rated flow of 160 GPM, damage may be caused to the backflow preventer because of the high velocity of water flowing through the assembly. Although any flow rate between 160 GPM and 320 GPM would fall within the operating parameters of the water meter, this flow would exceed the rated parameters of the backflow preventer.

A good policy, and one enforced in most jurisdictions, is to install a backflow prevention assembly of the same size as the water meter. This will prevent the possibility of damage to the assembly due to undersizing. The Foundation's recommendation, in general, is to install an assembly, which is the same size as the water meter. For more questions about undersizing feel free to contact the Foundation office. ■



looking for field test sites: continued

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In many cases the owner of the field test site may receive the field test assembly(s) at a reduced or no cost for allowing the use of the location as a field test site. At the conclusion of the field evaluation, the field test assembly(s) will normally become the property of the owner. So customers required to install an assembly by an administrative authority but having trouble financing and installing the assembly may participate to help decrease those costs.

Although most field test sites are located in California, this is not a requirement. If several sites were to be located in a specific geographic region, it would be possible for staff to travel to that region and conduct several tests.

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USC list: 'notes' field: continued

continued from **page 5**

Previously, only existing assembly models were noted on the USC List with a notation in the 'note' field indicating what the model designation used to be. Now, assemblies whose model designations have changed exist on the USC list as an existing assembly with a notation in the 'notes' field indicating what the model designation has changed to. This allows the user to look up the new model designation for more information about the approved assembly.

Type: DC	Manufacturer: Ames	Model: DC
Size: 10	Orientation:	Meters:
Manual:	0.25% Pb: No	Spare Parts Only: No
Approved:	Renewed:	Bypass:
Notes: model designation changed to 2000-G-DC		

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Example: Past model designation

Type: DC	Manufacturer: Ames	Model: 2000-G-DC
Size: 10	Orientation: H	Meters:
Manual: 7	0.25% Pb: No	Spare Parts Only: Yes
Approved: 04-Aug-1987	Renewed: 04-Aug-2014	Bypass:
Shutoffs: tt,ee,ff,gg,hh,ll,mm,oo,pp,uu,ccc,ddd,ffff,gggg		
Notes: formerly Model DC		

Example: Current model designation

Reviewing each part of an existing approved assembly's information on the USC List is important. And skipping over the 'notes' field may lead to incorrectly installing or identifying an approved assembly. The USC List is available in Excel, PDF, Mobile Web App and printed formats. ■

looking for field test sites: continued

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Field test sites used for the field evaluation have some very specific requirements detailed in Section 10.1.2.1.3 of the *Manual of Cross-Connection Control, Tenth Edition*.

Some important points to be aware of, if offering a field test location, include:

- The field test site must be accessible during normal business hours to USC Foundation staff for the field tests, which are conducted on a nominal thirty-day schedule.
- The application must be non-hazardous (a site which would normally require a reduced pressure principle assembly may not be used as a field test site).

Currently there is a special need for field test sites sized six inches and larger with a flow rate of 50%-100% of the rated flow of the assembly. (Rated flow is designated in Table 10-1 of the Tenth Edition.)

Members having potential field test sites may contact the USC Foundation's Field Evaluation Coordinator, John Cornett at (323) 662-3536 or fccchrlab@usc.edu. ■

Training

Courses 2015

all courses in Los Angeles, CA unless noted

Tester Course **Specialist Course**

13-17 July

27-31 July

5-9 October

One Day Update Seminar/Webinar

25 June

Recycled Water Shutdown Test

12 August

Field Test Procedures

13 August

Advanced Field Test Procedures

12 November

Assembly Repair and Lead Free Issues

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Upcoming

Events

ABPA Southern California Chapter

Backflow Industry Product Fair

Los Angeles, CA

27 August 2015

ABPA Western Regional

Backflow Conference

Las Vegas, NV

28-29 September 2015

AWWA California-Nevada Section

2015 Annual Fall Conference

Las Vegas, NV

26-29 October 2015

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