Foundation for Cross-Connection Control and Hydraulic Research
a Division of the University of Southern California

inside: **new website design | office move ... and more**

Cross Talk

Spring 2013

the Approval Process

For almost seventy years the USC Foundation for Cross-Connection Control and Hydraulic Research (the "USC Foundation") has been a leader in backflow prevention and cross-connection control. Developing standards for backflow prevention assemblies through the years, the USC Foundation has developed what may be considered the most rigorous approval process for backflow prevention assemblies. Additionally, that approval process results in the USC *List of Approved Backflow Prevention Assemblies*, a list that many water utilities, health agencies and administrative authorities use today.

The USC Foundation was established in 1944 with several objectives. Some of the objectives were:

- To evaluate and supplement existing information on mechanical backflow prevention devices operating under line pressure
- To develop standard techniques for testing and approving mechanical backflow prevention devices
- To prepare specifications establishing minimum performance of mechanical backflow prevention equipment.

Four years later, the USC Foundation met those objectives and published a document entitled, "Paper No. 5." Paper No. 5 contained the original standards for backflow prevention assemblies. At the time, these were the only standards for backflow prevention assemblies. Paper No. 5 was superseded by USC Engineer-

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USC University of Southern California

Foundation Membership

The Foundation's Membership Program provides many benefits to the Members of the Foundation. These include: a twenty-five percent discount on manuals, twenty percent discount on Foundation Training Courses for any employee of the Member company/organization, notifications of when the *List of Approved Backflow Prevention Assemblies* is updated on the USC Foundation's website.

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*:

Accurate Mechanical, LLC.
Bay Area Mechanical & Engineering, Inc.
Broadway Mechanical Contractors, Inc.
CCC Programs
Chris Phan
Cornell University
D's Plumb N Co.
Eric Nena
Gerald Redus
GHD Inc. - Sacramento
HBK Water Meter Service, Inc.
IAPMO/BPI
Idaho Falls, City of
KO Plumbing
M.J. Hellmuth Plumbing, Inc.
Muir-Chase Plumbing
New Jersey Alliance of Master Plumbers
Patrick Plumbing & Heating
PCSI
Raleigh Water District
Roger's Plumbing
San Jacinto, City of
Sierra West Consultants, Inc.
Southeast Texas Water Conditioning Inc.

Cross Talk is published by the Foundation for Cross-Connection Control and Hydraulic Research, a Division of the University of Southern California, for Foundation Members.

New Website Design

The coming year promises to be an exciting one for USC Foundation Members. Aside from making a mobile web app for the *List of Approved Backflow Prevention Assemblies* available and introducing one-day update seminars, the USC Foundation will unveil its new website. The new design will make it even easier for Members to navigate to the information that interests them.

The USC Foundation published its first website back in February 1995. Since then the website has seen redesigns in 2002 and 2005. And, after almost eight years the USC Foundation's website has undergone another transformation which will see some added features and simplicity for easier navigation.

On the homepage, members will quickly find a 'Favorites' heading which will immediately link to some of the information most requested of the USC Foundation. Aside from a direct link to the *List of Approved Backflow Prevention Assemblies* and frequently requested documents, the new website contains a 'What's New' page. The page will display all the up-to-the-minute relevant news. Information like new training tools, new course additions and new research projects will all be listed for members to learn about.

Additionally, the new website adds a search feature that has been absent in the past. The new search feature will make it easier to locate information. For example, *Cross Talk* articles, Special Notices and training course information will be easier to find with just one click of the search button.

Also, for the first time the website contains every copy of *Cross Talk* ever published, dating back to May 1967, the first issue of *Cross Talk*. Members will be able to view over 80 issues of the publication. *Cross Talk* is a valuable resource for anyone interested in backflow prevention and cross-connection control, with articles including subjects such as backflow protection at construction sites, winterizing assemblies and rotating assemblies.

USC Foundation members will continue to receive exclusively the latest issue of *Cross Talk* in the mail. All non-members will have to wait one year from the publication of an issue before it is made available on the website.

Social media is also a part of the new website. Links to the USC Foundation's Facebook, Twitter and YouTube pages are made available on the website's homepage. The USC Foundation's Facebook and Twitter accounts will be updated with latest information. The USC Foundation encourages all members to 'like' its Facebook page and 'follow' its Twitter account. There are plans to add shorts video clips of training courses and one-day seminars to the YouTube channel.

All USC Foundation members are invited to visit the new website. Although, the redesign looks great on smartphones and tablets, the USC Foundation plans to release a smartphone formatted website for members who need the information on the go later this year. Please visit the new website at fccchr.usc.edu and feel free to contact the USC Foundation office with comments or questions regarding the new website at fccchr@usc.edu. ■

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ing Report 48-101, and later the *Manual of Cross-Connection Control*. The Manual has been updated continually and is currently in its Tenth Edition.

Although, today, there are several entities that list or approve backflow prevention assemblies, the USC Foundation believes that none can be considered to be as rigorous as the USC Approval Process.

The USC Approval Process stands out in several ways.

The USC Foundation's Manual Review Committee develops the USC Foundation's Standards contained in the Manual. This committee consists of representatives of Health Agencies, Water Agencies, Backflow Prevention Assembly Testers, USC Faculty and Staff, and a non-voting representative of the Backflow Prevention Manufacturer's Association.

Input is welcomed from all interested parties in the backflow industry during the open committee meetings. Proposals received from the individual manufacturers and other interested parties are reviewed during the development process. Minutes of all meetings are posted on the USC Foundation's website to keep interested parties informed of all actions taken. Drafts of the Standards are submitted to all manufacturers for final comment.

The USC Foundation's voluntary Standards are considered consensus standards, since they are developed in an open process and each negative comment is resolved as the Committee develops the Standards.

Although these Standards are considered consensus standards, the USC Foundation has not sought ANSI (American National Standards Institute) accreditation for the Standards, since one of the ANSI requirements is that the development committees contain an equal number of members from users, general interest, and manufacturers.

The USC Foundation Approval Process requires all backflow prevention assemblies to be tested directly by USC Foundation Staff in the USC Foundation Laboratory and in the field. Other agencies may allow third parties to test the backflow prevention assemblies and send the results to the certifying agency.

The USC Foundation Approval Process requires a one-year field evaluation. Some agencies may have a voluntary field evaluation, but the field evaluation is not required for a product to become listed. The USC Foundation Approval Process requires that three of each size and model and orientation of backflow prevention assembly be installed in three different water systems, once the laboratory evaluation has been successfully completed. These assemblies are tested on a nominal 30 day sched-

ule for one year. At the end of this year, the assemblies are disassembled to determine if there are any problems that could prevent the assembly from operating properly. Approximately 30% of the assemblies that

pass the USC Laboratory Evaluation do not pass the USC Field Evaluation the first time through. The field evaluation is a better assessment of how a backflow preventer will operate under actual field conditions than laboratory testing alone.

The Field Evaluation is not the only thing that sets the USC Foundation Approval Process apart from others. Of the assemblies submitted to USC from 2009 to 2012, which were already listed by another listing agency, more than 50% of these assemblies did not pass the Laboratory Evaluation portion of the USC Foundation Approval Process when first submitted. This data indicates that the requirements of USC Approval Process appear to be more stringent than those of other agencies. Therefore, Members can rest assured that USC approved backflow prevention assemblies have gone through a rigorous approval process.

As members of the USC Foundation are aware, once backflow prevention assemblies successfully complete the laboratory and field evaluation process they are added to the List of Approved Backflow Prevention Assemblies.

In the past, access to the USC *List of Approved Backflow Prevention Assemblies* has been restricted to USC Foundation Members only. However, many Members have expressed the desire to have the list more publicly available in order to reduce the hardship on the Member in requiring USC Foundation Approved assemblies and yet being restricted by copyrights from being able to get the list information into the hands of their customers. Certainly Members have been able to provide specific portions of the List, but it has never been as simple as handing a copy of the list off, or referring the customer to the USC Foundation website. After much consideration, it has been determined to be in the best interest of the water drinking public to release the USC *List* to the general public. By the time this issue of *Cross Talk* is delivered, the USC *List* will be available without the need for a password.

USC Foundation Members will be the only ones notified when changes are made to the USC *List*, so that Members will be kept up-to-date. Additionally, Members will be sent a hard copy of the *List* annually, which will be in a 8 ½" x 11" booklet format.

The USC Foundation has also had a Mobile Web App developed for the *List*. So once one goes to access the *List*, those using a mobile device will be redirected to the Mobile Web App with the ability to verify an assembly is approved by model number and size, or find out which assemblies are approved based on certain parameters.

It is the hope of the USC Foundation that the ready availability of the *List* will make the members', especially the administrative authority members' work simpler. This should also make it easier for other administrative authorities to refer to the USC Approved list in their requirements. ■

Office Move

For more than a half century the USC Foundation office has been located on the University Park Campus of the University of Southern California. But, beginning in May the USC Foundation Office is relocating to a much larger office space just on the border of the University Park Campus. The new location provides the USC Foundation with more space and the ability host in-house its training courses and one-day update seminars.

Recently, USC made a decision to move all non–academic units of the University off the University Park Campus. The USC Foundation, being a non-academic unit is relocating. However, it will be the first time the USC Foundation office space is designed to include a training room.

The USC Foundation was founded in 1944. Shortly thereafter, a Laboratory was constructed at the University Park Campus. This laboratory was used to evaluate and supplement existing information on mechanical backflow prevention devices; to develop standard techniques for testing and approving mechanical backflow prevention devices; to prepare specifications establishing minimum performance of mechanical backflow prevention equipment; to prepare maintenance and test schedules and report forms among other things.

In 1968, the current USC Foundation laboratory was put into operation off the University Park Campus. Leaving only the office space of the USC Foundation Director for administrating the day-to-day business.

The Director's duties as a USC Professor and the Director of the USC Foundation were both operated out of a single room in Olin Hall of Engineering on Campus. Eventually, a secretary from the Mechanical Engineering Department worked one-quarter of the time for the USC Foundation. As the USC Foundation grew in the 1970's and 1980's the staff grew from the Director alone in the mid 1970's to the current staff of ten, plus the Director.

When Dr. J. J. Lee, a USC Professor of Civil and Environmental Engineering, became Director in 1985, the University granted a small office space to the USC Foundation near the Director's office in Biegler Hall of Engineering. This was the Foundation's office space until the Civil and Environmental Engineering Department moved to Kaprielian Hall in 1990.

After 23 years in Kaprielian Hall, the USC Foundation office has been asked to relocate to a Research Building on the border of the Univer-

sity Park Campus. Currently, the Viterbi School of Engineering has a large amount of space in this building so it can provide the USC Foundation with three times as much space than it has had. With that added space the USC Foundation will be able to add a training room and have access to an outside area to use as a wet lab during courses.

A new training room will allow the USC Foundation much more flexibility in scheduling training courses as well as update seminars. Training courses, in the past, have been held at, either rented facilities; or, in the case of the Specialist Courses, in other training rooms on campus when they were available.

The new training room will be equipped with new audiovisual equipment, such as a high definition Smart TV. And, it will give the USC Foundation more flexibility for in course scheduling and provide for a better educational experience.

New Offices Under Construction

The USC Foundation will be able to setup a wet-lab area, right outside the building. The wet-lab area will include backflow prevention assemblies for hands-on instruction and practice. So, lectures for the Tester Course will be held in the training room, and practical training on the backflow preventers will take place with students being able step outside to continue the hands on portion of the training.

Aside from a new training room and wet-lab area the new office space will have a larger storage area, reducing the need for off-site storage. The new office space will accommodate the USC Foundation needs better and provide it with more room to welcome members and perform the day-to-day operations.

Please note that the USC Foundation's toll free phone number (866-545-6340) and fax number (213-740-8399) will not be affected by the move.

The new mailing address for the USC Foundation is the following:

USC Foundation Office
University of Southern California
Research Annex 219
3716 South Hope Street
Los Angeles, CA 90089-7700

Training Courses

Tester Course

Los Angeles, CA
15-19 July 2013

Specialist Course

Los Angeles, CA
29 July - 2 August 2013

Baton Rouge, LA
23-27 September 2013

One Day Seminar

Los Angeles, CA
22 July 2013

Social Media

follow us at twitter.com/uscfccchr

become a fan by clicking
'Like' on our facebook page
facebook.com/uscfccchr

Upcoming Events

2013 ABPA Education Conference
and Trade Show
Phoenix, AZ
6-8 May 2013

AWWA Annual Conference
and Exposition
Denver, CO
9-13 June 2013

AWWA CA-NV
Fall Conference
Sacramento, CA
30 Sept. - 3 Oct. 2013

Contact Information

Phone: 866-545-6340
Fax: **213-740-8399**
E-mail: fccchr@usc.edu
Website: **fccchr.usc.edu**

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