

# CROSS TALK

QUARTERLY BULLETIN

FOUNDATION FOR CROSS-CONNECTION CONTROL RESEARCH

UNIVERSITY OF SOUTHERN CALIFORNIA

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## SHORT COURSE A SUCCESS

The first short course for the training and certification of Testers of backflow prevention equipment was held at the Laboratory of the Foundation on 21-25 September 1970. The course was a combination of lectures, demonstrations, exercises in the testing and repair of devices and a field trip to observe actual installations and the field testing of devices. The final day was occupied by the written and performance examination. All members of this first class were successful in making satisfactory scores on both the written and the performance portions of the examination. And, all received certificates at the close of the short course.

The members of this class were:

Norman R. Angvik, Seattle Water Dept., Seattle, Wash.  
Paul Buus, Ventura Co. Health Dept., Ventura, Calif.  
James Christianson, Lewiston Orchards Irrigation Dist., Lewiston, Idaho  
Edwin B. Clagett, Escondido Water Dept., Escondido, Calif.  
Wesley A. Dowhen, Bellflower Water Dept., Bellflower, Calif.

David H. Duncan, Fresno Public Works Dept., Fresno, Calif.  
Eugene W. Fraser, Hawthorne Water Dept., Hawthorne, Calif.  
Wendell Jones, City Utilities, Water Dept., Springfield, Missouri  
John R. Kangas, Utilities Dept., Salem, Oregon  
R. C. Kimmel, Monte Vista Water Dist., Montclair, Calif.  
Don Ledford, Bureau of Water Works, Portland, Oregon  
Robert R. Manwaring, Lewiston Orchards Irrigation Dist., Lewiston, Idaho  
William Preble, Bureau of Water Works, Portland, Oregon  
Alfred D. Smythe, Oregon State Board of Health, Portland, Oregon  
Ray Sutherland, Rockwell Manufacturing Company, Uniontown, Penna.  
Julius C. Thorne, WaterMetrics, Portland, Oregon  
Lester Turner, Somerset Mutual Water Company, Bellflower, Calif.  
L. Kent Werner, Otay Municipal Water Dist., Spring Valley, Calif.  
Berton Wilcox, City of Sunnyvale, Sunnyvale, Calif.

Each of these men worked hard to master the operation details of the currently approved backflow preven-

tion devices and the methods used to test and repair these devices in the field. Where they have met an unusual condition in the field during inspection or testing a telephone call to the Foundation promptly confirmed the original diagnosis or an alternate approach to the problem was worked out. Reports from the group of men in Oregon indicate that as a follow up of their short course training these five men made a series of field inspections *as a team*. This is a highly commendable utilization of a concentrated training. For, as a team each member is a back-up of the others; and, if there are any questions about an installation or the interpretation of test data there is a "board" who can observe, discuss and agree upon the evaluation of the data right on the spot. Hence, the experience gained in this manner is invaluable for future independent inspection and testing. Where such practice can be implemented it is strongly urged that this be done.

The next short course will be held 1-5 February 1971 at the Lab of the Foundation. Address inquiries to the Director of the Foundation or telephone (213) 746-2032.

## HOW MANY IN YOUR SYSTEM?

Earlier this year Walter Schraub of Santa Ana kindly offered to the Foundation some information that his office has gained in terms of an analysis of cross-connections in a medium sized municipal system. Then later this year additional information has been gained in bits and pieces from similar data analysis of two systems in medium sized cities in the mid-west. Based upon four to five years data in these cities and on an average of about 1,100 inspections each year, these communities have found violations of cross-connection regulations in almost exactly 25% of the inspections. These violations were corrected by the installation of

an approved backflow prevention device in half of the cases; and, in the other half a modification of the system was considered to be adequate to meet the regulations.

The interesting correlation of the numbers of violations and devices installed per inspection in these widely separated cities—one with a well established backflow prevention program and the others with programs just getting under way—is enough to make one really sit up and take notice. When it is realized that your system will apparently need one backflow prevention device for every eight inspections that are made you begin to sense the magnitude of the cross-connection control problem. Of course, if your system is entirely a

domestic distribution system the ratio may in all probability be lower. However, if your system has a high concentration of manufacturing or high hazard type plants you will in all probability find that the ratio is more in the order of one device required in five or six inspections.

To establish a viable and defensible basis for all cross-connection control programs—whether just starting or well established—it is urged that adequate records be kept so that the number of devices required can be compared to the number of inspections made. Also, data on the nature of the violation and the type of device used to protect the system is helpful whenever statistical data or legal facts are needed.

## AN INTERESTING SAFEGUARD

We have run across an interesting solution to the problem of providing backflow protection on a temporary service to a site where possible contamination or pollution conditions exist that could endanger the potable water supply. This particular water utility has purchased and maintains a small stock of reduced pressure principle backflow prevention devices which they will rent to a customer who has a temporary need for such a device. The utility involved feels that the goodwill provided by this service is well worth the effort required to maintain these devices in a "ready to use" condition.

It is possible that such a need could occur during construction on a complex project. Also, if on a critical service—such as to a hospital—where only a single service had been allowed and this service is protected by only a single backflow prevention device the availability of a temporary unit could be a welcome note to the manager of the critical service in the event that their unit had to undergo repairs. In other service areas we have found instances where hospitals, steel mills, and process plants have been allowed to install only a single reduced pressure principle device on a single service line. Hence, even for the required periodic performance test the water agency, the certified tester and the owner of the device all had to work to a very limited schedule

in order that emergency or critical operations were not hampered by the lack of water—even for a few minutes.

This serves to illustrate the need for adequate advance planning between the owner, architect, consulting engineer, plumber and water purveyor in order that a critical service will be provided with a manifolded backflow prevention system. With two or more backflow prevention devices in a manifolded installation there will never be a time when the customer will be totally without water. This should have been a prime consideration in a large number of cases that we have seen in recent years. For, continuity of service can be just as important as backflow prevention.

## CAN WE HELP?

Every system always needs to explain to new customers, plant or facility administrations, architects and consulting engineers what cross-connections really are, how they are hazards that must be protected and how the devices installed to accomplish the protection must be tested and maintained. If an individual system or a group of systems in an area would like assistance in the presentation of a backflow prevention seminar please get in touch with the Director of the Foundation.



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