



## Backflow Prevention Reference Manual (Third Edition)

The third edition of the Backflow Prevention Reference Manual continues to build on the important collaboration between the United Association of Journeymen and Apprentices of the Plumbing and Pipe Fitting Industry and International Association of Plumbing and Mechanical Officials Backflow Prevention Institute.

This full color, illustrated reference manual is designed to teach every aspect of backflow prevention and cross-connection control, from identifying and testing the wide variety of backflow prevention assemblies to proper selection and installation of both testable assemblies and non-testable backflow prevention devices. This manual provides instruction on how to recognize degrees of hazard or potential risks to potable water systems, and whether the proper backflow prevention method, device or assembly has been correctly installed.

The manual covers the history of backflow prevention; definitions and devices; backflow prevention hydraulics; testing methods with full, detailed illustrations; an overview of gauges and test kits; trouble shooting guide; cross-connection control surveys; program development; code requirements and installation standards. The manual is used as the textbook for many training classes to help prepare an individual to become a certified backflow prevention tester, surveyor or repairer.

The unique, 300-page Backflow Prevention Reference Manual contains illustrations in real-world field settings and can be used by regulatory agencies as a guide to determine what type of valve can be used in a particular case. With information on the history of backflow prevention as well as chapters written from the regulatory perspective, Backflow Prevention Reference Manual is an important resource for system designers, urban planners, and utility companies-professionals "on both sides of the water meter".

This text, originally published in 2006, updated in 2011, and now again in 2016 has become the most used reference manual in the training and certification of backflow assembly testers, repairers, surveyors, and others working in all phases of the cross-connection control industry.

IAPMO Online Store: [www.iapmostore.org](http://www.iapmostore.org) or Toll-Free: **1-800-85-IAPMO**

**Member: \$109.20      Non-Member: \$136.50**



## Backflow Prevention & Plumbing Standards Magazine

Published and distributed in print and an electronic formats, this magazine is a result of the merger of two of the most respected magazines published for the cross-connection and plumbing industries: ASSE International's Plumbing Standards magazine and the International Association of Plumbing and Mechanical Officials' Drinking Water and Backflow Prevention magazine. The new BPPS magazine begins with a readership of more than 13,000 within the United States and is committed to developing an international market.

**One Year Subscription: \$45.00      International Rate: \$53.00**

### HAVE A GROUP THAT NEEDS CERTIFICATION OR RE-CERTIFICATION?

Contact the IAPMO Backflow Prevention Institute to teach for you.  
Private classes available to fit your schedule.

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# IAPMO BACKFLOW PREVENTION INSTITUTE



# COURSE OUTLINES

IAPMO Backflow Prevention Institute® (BPI) provides education and training services to increase both private and professional awareness of potential hazards to the public drinking supply relating to backflow and cross connections. Backflow prevention programs are in place to protect the public health from intentional and unintentional contamination of the public's potable water supply.

The IAPMO Backflow Prevention Institute training is designed to provide the student with the knowledge to successfully pass any examination required by the State or local Authority Having Jurisdiction. BPI has designed this comprehensive training to provide the necessary skills to confidentially take the exam of AWWA, ABPA, ABC, ASSE and many others.

## Cross Connection Control Surveys

The Backflow Prevention Institute offers cross connection control surveying services to commercial, industrial, and municipal clients. Many jurisdictions are now requiring water users and property owners to have cross connection surveys performed on a five year cycle. IAPMO BPI surveys target both isolation and containment protection needs and requirements at existing facilities, to identifying potential and actual cross connection issues. Our surveys look at existing backflow prevention protection present at the site, testing and maintenance of this protection and recommendations for additional backflow prevention devices or assemblies that may be needed to protect the potable water supply. The Backflow Prevention Institute can also provide certification training to your on-site personnel to allow you to conduct future surveys and inspection and testing in house.

## American Society of Sanitary Engineering (ASSE) and International Association of Plumbing and Mechanical Officials (IAPMO)

IAPMO BPI is an ASSE accredited school; our training classes are designed in accordance with the requirements of the ANSI Accredited ASSE Series 5000 Cross-Connection Control Professional Qualification Standard. The Series 5000 gives the minimum performance requirements for Backflow Prevention Assembly Testers, Cross-Connection Control Surveyors, Backflow Prevention Assembly Repairers, Fire-Sprinkler System Cross-Connection Control Testers, and Backflow Prevention Program Administrators. More and more cities, states and local jurisdictions are recognizing the need to have regulations concerning the installation and testing of backflow devices. They also recognize the need to regulate the qualifications of the individuals testing and repairing these devices. As a national certifying agent, ASSE meets the need of these jurisdictions. As an ASSE approved school the IAPMO Backflow Prevention Institute training is designed to provide the student with the knowledge to successfully pass any examination required by the State or local Authority Having Jurisdiction. BPI has designed this comprehensive training to provide the necessary skills to confidentially take the exam of AWWA, ABPA, ABC, ASSE and many others.

## Backflow Prevention Assembly Tester Training and Certification Examination (ASSE 5110)

**Length:** 40 hours **CEU:** 4.0  
At this forty (40) hour training class, participants will be presented with the guidelines used for acceptable practices of testing backflow prevention assemblies. The participants will also learn the principles of cross-connection control and the methods devices, and assemblies used to protect the potable water system. The training and knowledge provided will prepare the student for the jurisdiction's recognized examination. BPI has designed this comprehensive training to provide the necessary skills to confidentially take the exam of AWWA, ABPA, ABC, ASSE and many others. On the final day of the training, the ASSE 5110 tester certification examination will be administered. The written exam for an initial tester certification consists of 100 questions. Presently, the initial certification candidate must demonstrate the field test procedure for a reduced pressure principle assembly, double check valve assembly, pressure vacuum breaker assembly, and spill-resistant vacuum breaker assembly.

## Backflow Prevention Assembly Tester Recertification Training and Examination (ASSE 5110)

**Length:** 8 hours **CEU:** 0.8  
During this eight (8) hour training, participants will review the guidelines used for acceptable practices of testing backflow prevention assemblies. The participants will receive the information and skills to help them pass the American Society of Sanitary Engineering (ASSE) Recertification Examination. At the end of the course the recertification examination will be administered. This consists of a written and a hands-on examination. This training is mandatory in order for the tester to re-certify under ASSE program guidelines. The written exam for the tester recertification consists of 25 questions. In the practical examination the candidate must demonstrate the proper field test procedure for a reduced pressure principle assembly, double check valve assembly, pressure vacuum breaker assembly, and spill-resistant vacuum breaker assembly without notes or assistance.

## Cross-Connection Control Surveyor (ASSE 5120)

**Length:** 20 hours **CEU:** 2.0  
This course provides the necessary training and examination for individuals seeking certification as a Cross-Connection Control Surveyor. The course consists of twenty (20) hours of training culminating in a fifty (50) question examination. During the training portion of the course, participants can expect to discuss the basics of cross-connection control surveying, as well as safety, cross-connection control, product performance, conducting a survey, and proper terminology. Federal, state, and local regulations and codes related to cross-connection control and backflow prevention will be presented.

## Backflow Prevention Assembly Repairer Training and Certification Examination (ASSE 5130)

**Length:** 20 hours **CEU:** 2.0  
This course provides the necessary training and testing for individuals seeking certification as a Backflow Prevention Assembly Repairer. The course provides twenty (20) hours of both classroom and hands on training culminating in a fifty (50) question written examination and a practical examination, which includes the servicing, rebuilding, and retesting of various types and sizes of backflow prevention assemblies. During the training portion of the course, participants can expect to discuss the basics of backflow prevention assembly repair and trouble-shooting, as well as safety, reporting, product performance, product test equipment, and proper terminology.

## Fire-Sprinkler System Cross-Connection Control Tester (ASSE 5140)

**Length:** 30 hours **CEU:** 3.0  
This course provides the necessary training and testing for individuals seeking certification as a Fire-Sprinkler System Cross-Connection Tester. The course consists of thirty (30) hours of training culminating in a fifty (50) question examination. During the training portion of the course, participants can expect to discuss the basics of fire-sprinkling cross control testing, as well as safety, product performance and proper test reporting. NFPA codes and standards will be reviewed as they relate to system design and maintenance regarding cross-connection control and backflow prevention. Individuals will be instructed on the proper procedures for the closing and reopening of valves within fire protection systems and on the requirements for flow and alarm testing. Basic alarm and fire pump operation will be discussed.

## Backflow Prevention Program Administrator/Specialist Training and Certification (ASSE 5150)

**Length:** 32 hours **CEU:** 3.2  
This instructional course; provides the necessary training and examination for individuals seeking certification as a Backflow Prevention Program Administrator. The course consists of thirty two (32) hours of training for an Administrator/Specialist culminating in a fifty (50) question written examination and a 25 question practical examination. During the training participants can expect to discuss the basic principles of hydraulics pertaining to backflow prevention and cross-connection control. The individuals will also receive training on cross-connection control containment and isolation surveys, product identification and installation requirements. The elements of a cross-connection control program, federal, state, and local regulations, plumbing codes, and public education and outreach will also be presented.

**TO SEE ALL AVAILABLE COURSES,  
VISIT OUR WEBSITE:**

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