IAPMO Solicits Public Comments for 2018 UPC, UMC

IAPMO®, publisher of the Uniform Plumbing Code (UPC®) and Uniform Mechanical Code (UMC®), is calling for public comments on the Report on Proposals for the 2018 editions of these American National Standard designated model codes.

The public comment form, as well as instructions and background on IAPMO's ANSI-accredited consensus development process, can be found here. All comments should indicate the exact wording recommended as new, revised or to be deleted, as well as state the problem the recommendation is intended to resolve and the specific reason for making the comment.

No comments will be accepted after the 5 p.m. PST deadline on Jan. 3, 2017. All public comments will be distributed to the Technical Committee members in March and reviewed at their meetings, May 1-4, 2017, in Anaheim, Calif.

Introduced in Los Angeles in 1928 and formally published as the Uniform Plumbing Code in 1945, the UPC is developed to govern the installation and inspection of plumbing systems as a means of promoting the public's health, safety and welfare. Later published by IAPMO in 1967, the UMC provides the same governance for mechanical (HVAC, combustion, exhaust, refrigeration) systems. Developed and
subsequently republished at the conclusion of each three-year code cycle, the *UPC* and *UMC* are designed to provide consumers with plumbing, heating and mechanical systems that meet all applicable standards while, at the same time, allowing latitude for innovation and new technologies.

IAPMO employs a consensus development process accredited by the American National Standards Institute (ANSI), gathering the largest assembly of plumbing and mechanical experts in the world at its annual education and business conference and technical committee meetings, enabling anyone – members and non-members alike – to have a voice and a vote on proposed changes to the code. The 2018 editions of the *UPC* and *UMC* will mark the sixth time these codes have been developed in this manner.

IAPMO urges its members and other interested parties to get involved in the process to ensure effectiveness in preserving the public health, safety, and welfare through fair and balanced development of its codes and standards. Installers, plumbing and mechanical officials, the construction industry, engineers, and manufacturers all benefit from a cooperative effort in developing codes.

For questions about submitting comments for the *UPC* or *UMC*, contact Enrique Gonzalez, Uniform Codes staff liaison, at (909) 230-5535 or by email at enrique.gonzalez@iapmo.org.

---

**Imagine a Day Without Water**

Most Americans take water, and the systems that bring it to and from homes and businesses, for granted. They turn on the tap, and safe drinking water reliably comes out. They flush the toilet, and they don't have to think twice about how that wastewater will be taken away and safely treated before it is returned to the environment.

But could you imagine a day without water? Without safe, reliable water and wastewater service?

A day without water means no water comes out of your tap to brush your teeth. When you flush the toilet, nothing happens. It means firefighters have no water to put out fires, farmers couldn't water their crops, and doctors couldn't wash their hands before they treat patients.

A day without water is nothing short of a crisis.

While unimaginable for most of us, there are communities that have lived without water, without the essential systems that bring water to and from their homes and businesses. The tragedy in Flint, Michigan has dominated news coverage for months. Epic drought in California has dried up ground water sources, causing some residents to relocate because they couldn't live in a community without water. Overwhelmed wastewater systems have habitually forced beach closures along the Great Lakes because of unsanitary sewer runoff. Flooding and other natural disasters have knocked out water and wastewater service in communities from Texas to South Carolina to West Virginia.

America can do better.

The problems that face our drinking water and wastewater systems are multi-faceted. Systems have been underfunded for too long. The infrastructure is aging and in need of investment, while drought, flooding, and climate change all place extra pressure on our
water and wastewater systems. Different regions face different water challenges, so the solutions to strengthen our drinking water and wastewater systems must be locally driven. But reinvestment in our water must be a national priority.

The good news is while the challenges are great, our capacity for innovation is greater.

Investing in our drinking water and wastewater systems, secures a bright and prosperous future for generations to come. We need to invest in our local water systems. Public officials at the local, state, and national level must prioritize investment in water, because no American should ever have to live a day without water.

Public private partnerships play an important role in building the drinking water and wastewater systems of tomorrow. Innovation is driving the water sector, and will allow us to build modern, energy efficient, and environmentally advanced systems that will sustain communities for generations to come.

None of this will be easy work, and nothing can be taken for granted. But water is too essential to ignore the crisis in front of us. We need to prioritize building stronger water and wastewater systems now so no community in America has to imagine living a day without water.

IAPMO India Certifies First Two Seals of Purity for Drinking Water Treatment Systems

IAPMO India has certified the first two water treatment devices to the Certification Scheme for Drinking Water Treatment Systems that Make Microbiological Reduction Claims, making both products eligible to receive a Seal of Purity from the Water Quality India Association (WQA India).

KENT RO Systems Limited received the Seals of Purity for two water purifiers, the Grand and the Pearl.

"KENT manufactures domestic reverse-osmosis water purifiers to the highest standards and these two models were already certified by NSF & WQA," said Ekansh Mittal, Executive Assistant to the CMD for KENT RO Systems Ltd. "We are now pleased to receive the certification for the claim of microbiological reduction from WQA India through IAPMO. We will continue to offer the highest quality water treatment systems to our consumers."

In February, IAPMO India and WQA India entered into a memorandum of understanding (MOU) establishing an agreement to collaborate on the administration of the Certification Scheme for Drinking Water Treatment Systems that Make Microbiological Reduction Claims.

"IAPMO is proud to partner with WQA India to offer the Seal of Purity on products that pass rigorous performance testing criteria and strict certification requirements," said Anil Awasthi, IAPMO President. "This is a welcome opportunity to help ensure consumers are using high quality water treatment products."
including on-site factory inspections,” said IAPMO Senior Vice President – Water Systems Tom Palkon. "I would like to congratulate KENT RO for achieving the Seal of Purity for two of its products."

Point-of-use systems for drinking water treatment are used in households to alleviate health risks by reducing numerous potential disease-causing contaminants, including bacteria, viruses, and disinfectant resistant parasites. The new certification scheme, which conforms to ISO/IEC 17067 "Conformity Assessment – Fundamentals of Product Certification and Guidelines for Product Certification Schemes," establishes standards by which such products' reduction claims may be measured and certified as satisfying.

EPA Kicks Off Fifth Annual Campus RainWorks Challenge

The U.S. Environmental Protection Agency (EPA) launched its fifth annual Campus RainWorks Challenge, a competition for college and university students to design innovative solutions for our nation's water infrastructure, on Sept. 1. Using their campuses as labs, teams develop green infrastructure systems to reduce stormwater pollution and build resilience to climate change. Since 2012, more than 420 student teams have participated in the challenge.

"Stormwater is one of the nation's most significant water challenges, with increasing amounts of runoff polluting our nation's streams, rivers and lakes," said Joel Beauvais, Deputy Assistant Administrator for EPA's Office of Water. "Through the Campus RainWorks Challenge, EPA invites our country's future planners, designers, and engineers to apply their classroom learning and help us solve stormwater management problems through innovative green infrastructure design and technology."

Teams may register for the 2016 Challenge from September 1st to September 30th. The 2016 Challenge winners will be announced in spring 2017. Each first-place team will earn a student prize of $2,000 and a faculty prize of $3,000 to support green infrastructure research or training. Second-place teams will win $1,000 for student teams and $2,000 for faculty research.

Green infrastructure decreases pollution to local waterways by treating stormwater where it falls and keeping more polluted runoff out of sewer systems. Green infrastructure features include green roofs, permeable materials, green streets, rain gardens and rain harvesting systems. Communities are increasingly using green infrastructure to supplement their "gray" infrastructure such as pipes, filters and ponds.

Green infrastructure can create vibrant communities by increasing economic activity, neighborhood revitalization, job creation and open space. It also strengthens a community's resiliency to the impacts of climate change by reducing the burden on local water infrastructure, managing local flooding, reducing urban heat islands and lowering energy demands.

More information is available at www.epa.gov/campusrainworks

New Study Reveals Best Practices to Help Improve Construction Performance

With 85 percent of owners reporting over-budget construction projects, study sheds light on ways to avoid common industry shortcomings

A new study entitled "Optimizing the Owner Organization: The Impact of Policies and
Practices on Performance" has recently been published by Dodge Data & Analytics as part of its SmartMarket Brief series. Working in partnership with e-Builder, Inc., a pioneer in fully integrated, cloud-based construction program management software, Dodge surveyed executives responsible for construction at over 170 commercial and institutional owners.

The survey determined the policies and practices executives deploy in their internal capital project organizations, and how they correlate to the most successful cost, schedule and quality performance. The goal of the newly published report is to provide a useful guide for all owners to improve construction project performance for the entire industry. The study findings revealed several widespread performance issues among building owners, including:

- Ninety-three (93) percent of owners reported exceeding the original schedule established for their projects.
- Eighty-five (85) percent reported that their projects exceeded their established budget.
- Nearly half (44 percent) of owners do not effectively engage the stakeholders and end users of their projects.

The study shows that inadequate project management, staff management and internal competencies are common and consistent problems among the owners that most frequently report schedule, budget and stakeholder engagement issues.

"These findings confirm the issues we've seen emerge in other studies," says Stephen A. Jones, executive director of industry insights at Dodge Data & Analytics. "The construction industry has suffered chronically from challenges on core issues like schedule and budget. We believe these findings are critical to demonstrating ways in which owner organizations can effectively address these problems."

By ranking owners according to their level of performance, the analysis flags a group of top-tier performers – those that complete 25 percent or more of their projects ahead of schedule and 50 percent or more of their projects under budget – and then examines what they do differently that might be helping them excel. The results are divided into two main areas: practices that directly impact people and policy, and those that involve improved processes and technology. The findings make a compelling case that both areas need to be tackled to improve project performance.

With respect to people and policy, practices like tying employee incentives to project performance, formal training and development programs and clearly defined job roles appear to explain most of the difference between the best and worst performing projects.

The processes and technology improvements more widely adopted by the best performing owners include frequent measurement of project performance, willingness to innovate through the use of technology and the use of project management systems.

"The construction industry often seems like an untamable beast to owners, who may be aware that they are not operating as efficiently as possible but are not sure how to identify areas for improvement," said Chris Bell, vice president & program management evangelist, e-Builder. "With this first-of-its-kind study, we have been able to pinpoint best practices applicable to all owners and hope this contributes to greater efficiency across the entire industry."

Owners will have a chance to hear directly from the study's executers on September 29th, during e-Builder Elevate in Fort Lauderdale, Florida, where Jones will discuss the findings and share additional insights. To download the full study "Optimizing the Owner Organization: The Impact of Policies and Practices on Performance..."
IAPMO Solicits Public Comments Toward Development of 2017 WE•Stand

The International Association of Plumbing and Mechanical Officials (IAPMO®) is calling for public comments on formal proposals toward the development of the 2017 Water Efficiency and Sanitation Standard (WE•Stand).

The comment form, with instructions and background on IAPMO's ANSI-accredited consensus process, as well as the WE•Stand draft document, Report on Proposals, Monograph, and a development timeline, can be found online.

All comments should indicate the exact wording recommended as accepted as submitted, accepted as modified or rejected, as well as state the problem the recommendation will resolve and the specific reason for making the comment.

No comments will be accepted after the 5 p.m. PDT Nov. 28 deadline.

The standard, which will use as its basis the water and sanitation provisions within IAPMO's 2015 Green Plumbing and Mechanical Code Supplement (GPMCS), draws upon IAPMO's core competency and industry expertise in plumbing systems for the purpose of providing comprehensive requirements to optimize water use practices attributed to the built environment while maintaining protection of the public health, safety and welfare.

IAPMO is employing a voluntary consensus development process accredited by the American National Standards Institute (ANSI) for the development of WE•Stand, enabling anyone to have a voice in the development of the standard. In September 2015, IAPMO was granted Audited Designator status by ANSI in the development of the standard. Accordingly, WE•Stand will be designated as an American National Standard immediately upon finalization, without the need for review by the ANSI Board of Standards Review.

IAPMO urges its members and other interested parties to get involved in the development process to ensure effectiveness in preserving the public health, safety, and welfare through strict governance of its codes and standards. Manufacturers, potential users of the standard, installers and maintainers, labor representatives, design professionals, enforcing authorities, and consumers all benefit from a cooperative effort in developing codes and standards.

For questions about submitting public comments for the WE•Stand, contact Dan Cole at (708) 995-3009 or dan.cole@iapmo.org; or Maria Bazan at (708) 995-3007 or maria.bazan@iapmo.org.

IAPMO Oceana Hires Paul Bonsak as Managing Director

The IAPMO Group is pleased to announce the hiring of Paul Bonsak as Managing Director of IAPMO Oceana. He takes over the helm of an Oceana operation that certifies products in both the water and gas industry sectors for compliance with Australian and New Zealand codes and standards.

Bonsak brings to Oceana 17 years professional experience in the plumbing industry, the last nine working at a statutory authority ensuring the safety of these systems. As Executive Manager of Energy Safe Victoria's (ESV) Gas Installation and Appliance
Safety division, Bonsak managed all aspects of ESV's responsibilities in the areas of gas installations, gas appliances, service and use, and energy efficiency of gas appliances. Under his leadership, ESV achieved a 20 percent reduction in death and injury in the state of Victoria through a well-planned, effective media campaign.

Prior to ESV, Bonsak was General Manager of Kleenmaid, an Australian owned kitchen appliance brand, and General Manager Asia/Pacific for Emerson Electric's Appliance Division, for which he was responsible for overseeing all financial, marketing, and sales activity in Australia, New Zealand, and Asia.

"Spending all my adult life and some of my teenage years working in the plumbing industry has instilled in me a strong commitment to ensure communities are kept safe and protected from poor and dangerous plumbing and gas installations," Bonsak said. "My decision to join IAPMO Oceana was founded from this commitment. It originated from my visit to IAPMO Headquarters in Ontario, Calif., where the dedicated professional team, whose commitments aligned with my own, impressed me."

Bonsak studied plumbing and gasfitting at Swinburne Technical College and is a member of the Plumbers and Gasfitters Registration Board and the Institute of Gas Engineers.

"Paul brings to IAPMO Oceana a perfect blend of industry, regulatory, and product certification leadership experience," said GP Russ Chaney, CEO of The IAPMO Group. "He is keenly aware of what the industry and regulatory bodies expect from a world class product certification agency, thus perfectly positioned to spearhead IAPMO Oceana's continued growth and success."

New Study Shows High Potential for Groundwater to be Corrosive in Half of U.S. States

A new U.S. Geological Survey assessment of more than 20,000 wells nationwide shows that untreated groundwater in 25 states has a high prevalence of being potentially corrosive. The states with the largest percentage of wells with potentially corrosive groundwater are located primarily in the Northeast, the Southeast, and the Northwest.

This report is unrelated to the drinking water problems experienced in Flint, Michigan. The problems in Flint were related to treated surface-water from the Flint River, whereas this report focuses on untreated groundwater nationwide.

Two indicators of potential corrosivity were combined to determine that corrosive groundwater occurs in all 50 states and the District of Columbia. Corrosive groundwater, if untreated, can dissolve lead and other metals from pipes and plumbing fixtures.

"The corrosivity of untreated groundwater is only one of several factors that may affect the quality of household drinking water at the tap," said Stephen Moulton II, chief, USGS National Water-Quality Program. "Nevertheless, it is an essential factor that should be carefully considered in testing for water quality in both public and private supplies nationwide."

Public water supplies are regulated by the U.S. EPA, but maintenance, testing and treatment of private water supplies are the sole responsibility of the homeowner. About 44 million people in the U.S. get their drinking water from private wells, yet surveys indicate many homeowners are unaware of some basic testing that should be done to help ensure safe drinking water in the home.
"Fortunately, in most areas of the country and with appropriate safeguards, the majority of homeowners can get good quality drinking water from private wells," said Moulton. "But this study is a good reminder that prudent, routine testing of the water, including its interaction with the water supply system, is an essential first step so homeowners and their families can confidently drink water from their faucets."

Naturally corrosive water is not dangerous to consume by itself, however it can cause health-related problems by reacting with pipes and plumbing fixtures in homes. If plumbing materials contain lead or copper, these metals may be leached into the water supply by corrosive water. Signs of corrosive water causing leaching of metals may include bluish-green stains in sinks, metallic taste to water, and small leaks in plumbing fixtures.

Potential sources of lead in homes include:

- lead pipes or fittings used in homes built prior to 1930
- lead solder used in copper fittings in homes built prior to the late 1980s
- "lead-free" brass components, which, in all states, except California, may have contained up to 8 percent lead, prior to 2014
- galvanized steel that contained 0.5 to 1.4 percent lead, prior to 2014

"USGS has consistently monitored the water quality of the Nation's groundwater for over three decades by analyzing representative water samples," said Moulton. "Recent public health and water quality issues underscore the responsibility for us to report the possibility that regional geologic characteristics of groundwater could potentially affect household water systems resulting in significant implications for public health."

For concerns about potential health effects of household drinking water, the USGS looks to federal and state agencies to provide an indication of the potential scope of the problem.

For example, Virginia and Pennsylvania are states where private water sources, such as wells, springs, or cisterns, are especially common. Private water systems are used by about 1.7 million people in Virginia and about 3 million people in Pennsylvania.

In these states, the Virginia Household Water Quality Program and the Pennsylvania Master Well Owner Network provide practical information to homeowners about maintaining, testing, and protecting private water systems. University researchers at Virginia Tech and Penn State work with these specialized programs to monitor the quality of drinking water supplied by private water systems and to provide testing and advice to identify and remediate water-quality problems caused by contaminated or corrosive groundwater.

"Between 2012 and 2014, we found that 19 percent of the 2,144 private water systems sampled in Virginia exceeded the EPA lead action level," said Dr. Kelsey Pieper, USDA-NIFA Postdoctoral Fellow at Virginia Tech. "We also observed that 'lead-free' plumbing components released lead when exposed to more corrosive groundwater supplies."

"In Pennsylvania, corrosive water is usually associated with certain types of bedrock geology but can be found across the entire state," said Bryan Swistock, a water resources specialist with Penn State Extension. "Lead levels exceeded the EPA action level in 12 percent of the 251 drinking water systems monitored in Pennsylvania in 2007."

The USGS report, "Assessing the Potential Corrosivity of U.S. Groundwater" can be found online. Additional information on groundwater quality monitoring and modeling is available on the USGS National Water-Quality Assessment project website. A new
Delta Faucet Embraces Muddy Mess Makers, Celebrates Shower Singers

What happens when extreme obstacle course racing is paired with the fact that more than half of Americans (58%) – and 79% of millennials\(^1\) – admit to singing in the shower weekly? An optimal opportunity for muddy, musical magic. As part of its HappiMess campaign, Delta Faucet announced its continued partnership with Warrior Dash events and will debut a new consumer stage in the form of an in-shower karaoke station for participants to belt out their favorite tunes while getting clean post-race.

The innovative, outdoor showering station delivers a new twist for Warrior Dash race participants who can turn up the volume to their go-to shower serenades as they rinse clean after races across the U.S. this summer.

"From bounding over fire and trudging through mud, Warrior Dash race participants are no strangers to having fun while getting messy," said Catherine Roper, Delta\(^\circ\) brand marketing director. "We're proud to be back for a second year with the Warrior Dash events on our mission to help consumers embrace life's messes with confidence and fun. The added karaoke component allows Dashers to celebrate a bit more loudly and with a bit more fun in a unique, only-in-the-shower way."

Additional Singing in the Shower Findings
The Delta Faucet Singing in the Shower survey identified the following trends for those who turn their shower into private concerts:

- Nearly 1 in 3 (29%) Americans sing in the shower 4 to 7 days a week
- Topping the shower charts: Pop (27%), Rock (24%), R&B (21%), Country (20%) and Show Tunes (7%)
- 51% of Americans and 76% of Millennials admit to eavesdropping on their significant other singing with suds
- High hopes! 24% of shower singers liken themselves to British songstress Adele when singing in the shower, followed by Taylor Swift (17%) and Michael Jackson (16%)
- Shower singers' favorite decades rank as follows: 2000 boy-bands and pop divas (31%), 1990s hit makers (20%), 70s jams (17%), 80s favorites (17%) and 60s oldies (15%)

Before reaching the karaoke shower station, Warrior Dash race participants conquer 12 world-class obstacles throughout the 5K course. Participants can experience a custom, outdoor shower station featuring more than 40 Delta\(^\circ\) H2Okinetic\(^\text{®}\) showerheads, which deliver water in a unique wave pattern to deliver the feeling of a warmer, more drenching shower. The shower station can be found at the following six Warrior Dash events this summer:

- Pennsylvania – August 27
- Indiana – September 10
- Colorado – September 17
- Oregon – September 24

"As Warrior Dash enters its eighth season of providing memorable, HappiMess experiences – having partners like Delta Faucet helps us deliver those moments on and off the course," said Alex Yount, Sr. Manager of Partnerships at Warrior Dash and Red Frog Events. "The in-shower karaoke component delivers an interactive, fun and personalized way to celebrate our Warriors' accomplishments and transform them back
All H2Okinetic showerheads at the events are WaterSense-labeled and flow at 2.0 gallons per minute or less to create the feeling of more water while using up to 40 percent less water than a standard showerhead. Delta Faucet is a proud partner of the U.S. Environmental Protection Agency's WaterSense® Program and supports the program's goal of protecting the nation's water supply.

1 The Delta Faucets Survey was conducted by Wakefield Research among 1,000 nationally representative U.S. adults ages 18+ between July 8th and July 13th, 2016, using an email invitation and an online survey. Quotas have been set to ensure reliable and accurate representation of the U.S. adult population ages 18+.
DOE Issues Proposal for Residential Furnaces Energy Efficiency Standards

DOE has issued a pre-publication Federal Register supplemental notice of proposed rulemaking (SNOPR) pertaining to residential furnaces. (September 2, 2016). DOE will hold a public meeting October 17, 2017.

In this SNOPR, DOE proposes amended energy conservation standards for residential non-weatherized gas furnaces and mobile home gas furnaces. The notice also requests comment on the SNOPR's proposed standards and associated analyses and results. The SNOPR also proposes clarifications to the certification and reporting requirements.

DOE's analyses indicate that the proposed AFUE energy conservation standards for NWGFs and MHGFs would save a significant amount of energy. Relative to the case without amended standards, the lifetime energy savings for NWGFs and MHGFs purchased in the 30-year period that begins in the anticipated first year of compliance with the amended standards (2022-2051) amount to 2.9 quadrillion British thermal units (Btu), or quads. This represents a savings of 2.3 percent relative to the energy use of 16 these products in the case without amended standards (referred to as the "no-new-standards case").

The cumulative net present value (NPV) of total consumer benefits of the proposed AFUE standards for NWGFs and MHGFs ranges from $5.6 billion (at a 7-percent discount rate) to $21.7 billion (at a 3-percent discount rate). This NPV expresses the estimated total value of future operating - cost savings minus the estimated increased product and installation costs for NWGFs and MHGFs purchased in 2022-2051.

The residential furnace energy conservation standard rulemaking docket EERE-2014-BT-STD-0031 contains all notices, public comments, public meeting transcripts, and supporting documents pertaining to this rulemaking.

Public Meeting Information: DOE will hold a public meeting Monday, October 17, 2016 from 9:00 a.m. - 5:00 p.m. at DOE's Forrestal Building, Room 6E-069, 1000 Independence Ave., S.W., Washington, D.C.

To attend the public meeting please contact the Appliance and Equipment Program Staff at (202) 586-6636 or Appliance_Standards_Public_Meetings@ee.doe.gov.

To register for the webinar.

More information can be found here.
I-Connection Electronic Newsletter

You will continue to receive the I-Connection Newsletter each month until such time as you unsubscribe. To make sure the I-Connection Newsletter is not sent to your bulk or junk mail folders, add news@iapmo.org to your address book. We encourage you to forward the I-Connection Newsletter to your colleagues. Requests for new subscriptions, change of e-mail address, or to have your address removed from our list should be sent to news@iapmo.org. IAPMO does not knowingly participate in SPAM. We do not sell, rent or trade the names on our e-mail list; your e-mail address is only used to send messages from IAPMO. If you wish to be removed from this list, follow the link below and enter your e-mail address to be deleted.

Unsubscribe from the I-Connection Electronic Newsletter

Industry Calendar

<table>
<thead>
<tr>
<th>Event Name</th>
<th>Date</th>
<th>Location</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>87th Annual Education and Business Conference</td>
<td>September 25-29</td>
<td>Albuquerque, NM</td>
<td><a href="http://www.iapmo.org">www.iapmo.org</a></td>
</tr>
<tr>
<td>WaterSmart Innovations Conference and Exposition</td>
<td>October 5-7, 2016</td>
<td>Las Vegas, NV</td>
<td><a href="http://watersmartinnovations.com">watersmartinnovations.com</a></td>
</tr>
</tbody>
</table>

Upcoming Seminars

Earn your Continuing Education with IAPMO training.

<table>
<thead>
<tr>
<th>ARIZONA SEMINARS</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>November 14-18, 2016 Phoenix, AZ</td>
<td></td>
<td>2016 ASSE 5110 Backflow Tester 40 Hour Class and Exam</td>
<td></td>
</tr>
<tr>
<td>November 14, 2016 Phoenix, AZ</td>
<td></td>
<td>Cross Connection Control Recertification - 8 hr Course and Exam</td>
<td></td>
</tr>
<tr>
<td>December 12-16, 2016 Phoenix, AZ</td>
<td></td>
<td>2016 ASSE 5110 Backflow Tester 40 Hour Class and Exam</td>
<td></td>
</tr>
<tr>
<td>December 16, 2016 Phoenix, AZ</td>
<td></td>
<td>Cross Connection Control Recertification - 8 hr Course and Exam</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CALIFORNIA SEMINARS</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>October 13, 2016 Ontario, CA</td>
<td></td>
<td>2016 CPC Code Changes</td>
<td></td>
</tr>
<tr>
<td>October 14, 2016 Ontario, CA</td>
<td></td>
<td>2016 CMC Code Changes</td>
<td></td>
</tr>
<tr>
<td>October 19-21, 2016 Ontario, CA</td>
<td></td>
<td>ASSE 5130 Backflow Prevention Assembly Repairer Training and Certification Examination</td>
<td></td>
</tr>
<tr>
<td>October 24-28, 2016 Ontario, CA</td>
<td></td>
<td>ASSE 5110 Backflow Tester 40 Hour Class and Exam</td>
<td></td>
</tr>
<tr>
<td>Oct. 31 - Nov. 4, 2016 Poway, CA</td>
<td></td>
<td>ASSE 5110 Backflow Tester 40 Hour Class and Exam</td>
<td></td>
</tr>
<tr>
<td>November 3, 2016 Ontario, CA</td>
<td></td>
<td>2016 CPC Code Changes</td>
<td></td>
</tr>
<tr>
<td>November 4, 2016 Ontario, CA</td>
<td></td>
<td>2016 CMC Code Changes</td>
<td></td>
</tr>
<tr>
<td>Nov. 28 - Dec. 4, 2016 Ontario, CA</td>
<td></td>
<td>ASSE 5110 Backflow Tester 40 Hour Class and Exam</td>
<td></td>
</tr>
<tr>
<td>December 5-7, 2016 Ontario, CA</td>
<td></td>
<td>ASSE 5120 Cross-Connection Control Surveyor Class</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COLORADO SEMINARS</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>October 17-21, 2016 Pueblo West, CO</td>
<td></td>
<td>ASSE 5110 Backflow Tester 40 Hour Class and Exam</td>
<td></td>
</tr>
<tr>
<td>December 8-9, 2016 Longmont, CO</td>
<td></td>
<td>Cross Connection Control Recertification - 12 hr course and Exam</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LOUISIANA SEMINARS</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>October 10-14, 2016 Ruston, LA</td>
<td></td>
<td>ASSE 5110 Backflow Tester 40 Hour Class and Exam</td>
<td></td>
</tr>
<tr>
<td>MASSACHUSETTS SEMINARS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Session 8 Training now available - click here for the schedule!</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MINNESOTA SEMINARS</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>SOUTH DAKOTA SEMINARS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Click Here to Find a Class</td>
</tr>
</tbody>
</table>

IAPMO is an approved provider for Continuing Education by USGBC, IACET, AIA and many local organizations and jurisdictions. Contact the IAPMO Training staff to register at 1-877-427-6601, or go to our website [http://www.iapmo.org/Pages/Seminar.aspx](http://www.iapmo.org/Pages/Seminar.aspx) to register online. New training dates are added periodically!