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IAPMO Solicits Public Comments for 2021 UPC, UMC

The International Association of Plumbing and Mechanical Officials (IAPMO®), developer of the *Uniform Plumbing Code (UPC®)* and *Uniform Mechanical Code (UMC®)*, is calling for public comments on the Report on Proposals for the 2021 editions of these 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, 2019. All public comments will be distributed to the Technical Committee members in March and reviewed at their meetings, April 29-May 2, 2019, in Denver.

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 propose changes to the code.

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 the *UPC*, contact Enrique Gonzalez by phone at (909) 230-5535 or by email at enrique.gonzalez@iapmo.org. For questions about the *UMC*, contact Zalmie Hussein by phone at (909) 218-8122 or by email at zalmie.hussein@iapmo.org.

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2018 IAPMO Solar, Swimming Pool Codes Now Available

IAPMO has released hardcopy and digital versions of its 2018 editions of the *Uniform Solar, Hydronics and Geothermal Code™ (USHGC)* and *Uniform Swimming Pool, Spa and Hot Tub Code® (USPSHTC)*. Both the hardcopy and eBook (viewable on computers, tablets and smart phones) versions can be purchased and downloaded via the [IAPMO web store](#).

The *USPSHTC* is a model code developed by IAPMO to govern the installation and inspection of both public and private swimming pools, spas, and hot tubs to increase the safety of their operation.

Key provisions of the 2018 *USPSHTC* and changes from the 2015 edition include:

- New listing requirements for underwater luminaires
- New accessibility regulations for pool lifts and accessible routes to swimming pools, spas, and hot tubs
- New requirements for self-contained spas
- New provisions for underwater audio equipment

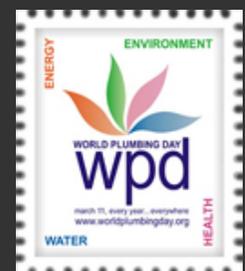
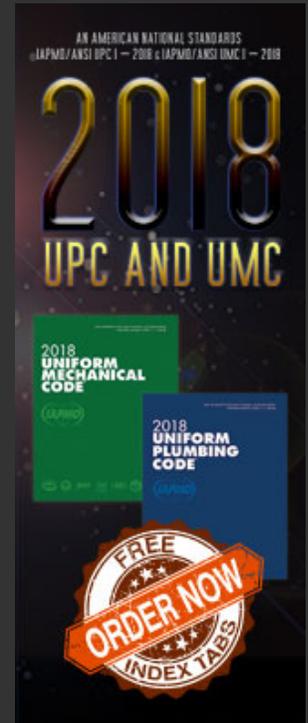
The *USHGC* is a model code developed by IAPMO to govern the installation and inspection of solar, hydronic, and geothermal energy systems as a means of promoting the public's health, safety and welfare. Published previously as the *Uniform Solar Energy and Hydronics Code*, the 2018 edition adds significant provisions concerning hydronic and geothermal systems.

Key provisions of the 2018 *USHGC* and changes from the 2015 edition include:

- New insulation and fasteners provisions for radiant and heating/cooling systems
- New snow and ice melt system controls
- New slab penetration tube and joint protection used in hydronic systems
- New listing requirements for ground coupled and water source heat pumps
- New certification of DX heat pumps
- New testing of vertical boreholes
- New heat transfer mediums for geothermal systems
- New provisions for ground heat exchanger testing
- New provisions for geothermal system start-up
- New electrical provisions for the installation of solar photovoltaic systems based on NFPA 70-2017

IAPMO first developed and published the *Uniform Solar Energy Code* in 1976 in response to a growing interest in residential and commercial solar energy systems. Just like the 2009, 2012, and 2015 editions of this code, the 2018 *USHGC* was developed

members of IAPMO, which include substantial discounts on most IAPMO publications and educational programs, the opportunity to update and improve the UPC and UMC, participation in local IAPMO chapters and an invitation to attend IAPMO's Annual Education and Business Conference. The conference offers superb educational seminars. Find out more at www.iapmo.org.



using the American National Standards Institute (ANSI)-accredited open consensus process.

For questions about the *USHGC* contact Zalmie Hussein by phone at (909) 218-8122 or by e-mail zalmie.hussein@iapmo.org. For questions about the *USPSHTC*, contact Enrique Gonzalez by phone at (909) 230-5535 or by e-mail at enrique.gonzalez@iapmo.org.

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IAPMO Publishes IAPMO/ANSI Z601 Standard for Scale Reduction Devices

IAPMO has released IAPMO/ANSI Z601-2018, Scale Reduction Devices. IAPMO/ANSI Z601 covers scale reduction devices intended for residential and similar water-heating applications and specifies general, material safety, structural integrity, and minimum performance testing requirements. The standard can be purchased and downloaded via the [IAPMO Online Bookstore](#).

IAPMO/ANSI Z601 is the product of more than 10 years of development. Although several alternatives to ion-exchange water treatment devices have the potential to offer solutions to consumers' need for scale reduction, lack of an appropriate test protocol that can be used to certify their effectiveness has slowed their adoption. IAPMO/ANSI Z601 creates a protocol for the testing of devices that have the potential to reduce encrusted scale in water in residential and similar applications and associated plumbing. The definition of a "device" has been intentionally left open in this standard so that any appropriate means or method with the effect of reducing scale can be tested for its effectiveness. This approach makes it possible to test a wide variety of devices.

Conformity with IAPMO/ANSI Z601 is determined through performance testing and the established minimum requirements for the reduction of scale. The scale produced in two treated test stations is compared to the scale produced in two control (untreated) stations. The test stations must reduce the amount of scale produced by at least 70 percent when compared to the control (untreated) stations for acceptance.

For more than 30 years, IAPMO has developed plumbing product standards as American National Standards, initially as the Secretariat for the ANSI Z124 Technical Committee in 1984, and since 2005 independently under its own American National Standards Institute (ANSI) accredited standards development procedures.

Founded in 1926, IAPMO seeks to be a worldwide leader in the plumbing and mechanical industry through protecting health and safety. IAPMO develops industry standards with a focus on plumbing products, solar heating systems and components, mechanical products (including heating, ventilation, cooling and refrigeration system products) and products used in the recreational vehicle and the manufactured housing industry.

For more information, contact Kyle Thompson, P.E. by phone (909) 230-5534 or by email at kyle.thompson@iapmo.org.

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Elevated Lead, Copper Levels Force Detroit Schools to Shut Off Drinking Water

Drinking water has been shut off at all of Detroit's public schools because elevated levels of lead or copper were found in several of the buildings.

The following statement was released from Dr. Nikolai Vitti, superintendent of Detroit Public Schools Community District:

I initiated water testing of all of our school buildings during the spring to ensure the safety of our students and employees. This was not required by federal, state, or city law or mandate. This testing, unlike previous testing, evaluated all water sources from sinks to drinking fountains. This past week initial results were returned for 24 schools and higher than acceptable levels were identified for copper and/or lead in 16 schools at one or more water sources. I immediately turned off the drinking water at those schools and provided water bottles until water coolers arrive.

When I started as superintendent last year, I was notified that 10 schools were using a DiHydro filtration system. I made the decision to shut off all drinking fountains and provide bottled water and water coolers to those schools at that time because of my concerns with water quality despite the intervention. The latest water results (16 schools), coupled with those from 2016 (10 DiHydro schools) and follow up results in the spring of 2018 for schools identified with concerns in 2016 (8 schools) in the spring, brings the total number of schools with water quality issues to 34.

Although we have no evidence that there are elevated levels of copper or lead in our other schools (over 50) where we are awaiting test results, out of an abundance of caution and concern for the safety of our students and employees, I am turning off all drinking water in our schools until a deeper and broader analysis can be conducted to determine the long-term solutions for all schools.

I have communicated this decision to the Mayor's Office and the Mayor and his team are supportive of the decision and intend to require all city charter schools to participate in the same level of water testing as we initiated last year. The Mayor's Office plans to partner with us to determine challenges with water quality in our schools and solutions to them.

We have communicated our decision to staff and families and will continue to communicate when students return to school next week.

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Using Education to Strengthen Emergency Preparedness for Septic Systems

After the events of the past year, emergency preparedness has clearly emerged as one of the most important topics facing environmental health. The 2017 hurricane season left hundreds of billions of dollars-worth of damage in its wake. Meanwhile, wildfires in California burned over 1.2 million acres, resulting in five of the 20 most destructive fires in the state's history. Despite the expansive media coverage these disasters generated, damage to wastewater treatment systems, especially private ones, was rarely discussed. Over 20% of U.S. households rely on a septic system, making them a key component to how wastewater is treated in this country. Septic systems can be damaged by hurricanes, wildfires, and a range of other disasters. Under flooded conditions, septic tanks can become dislodged and float out of the ground, heavy firefighting equipment can damage drain fields, and earthquakes can lead to drinking water contamination if septic tanks or pipes are damaged.

Including septic systems in preparedness efforts is essential to a strong recovery. Local and state health departments can provide guidance to septic system users in their communities and help residents identify qualified professionals if any repairs are needed. The best resource homeowners have, however, might be one they haven't considered: themselves. Being well versed with their septic system type, location, and components will help homeowners understand how different disaster events might

impact their systems. Recognizing warning signs after a disaster and knowing when to call a licensed professional will also save homeowners from costly repairs down the road and protect their families' health. Taking steps to care for one's septic system, such as being mindful of what goes down the drain or keeping cars off the drain field, will also help systems function during and recover after a disaster hits.

From the national to the local level, more can and needs to be done to incorporate septic systems into emergency preparedness planning. While counties, states, and even federal agencies can grow their programs in this area, homeowners are best armed with a thorough understanding of how their system operates and who they should contact when something goes wrong. Unfortunately, years fraught with disaster events like 2017 are likely to become more frequent. Raging hurricane and wildfire seasons may strike again, and other disasters affecting septic systems will likely return. Building capacity at the state and local level is critical, but homeowner education is necessary to creating an efficient emergency preparedness program for septic systems.

Check out some of the free educational resources below to get started.

[Environmental Protection Agency](#)

[National Onsite Wastewater Recycling Association](#)

Join us for #SepticSmart Week, September 17-21! Learn how you can participate at <https://www.epa.gov/septic>

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Construction Employment Rises by 23,000 Jobs in August and 297,000 for the Year Even as Labor Shortages Prevent Firms from Hiring More Workers

Construction Officials Urge Federal Leaders to Double Spending on Career and Technical Education, Reform Immigration and Improve Job Training Programs to Help Address Workforce Shortages Affecting Most Firms

Construction employment increased by 23,000 jobs in August and by 297,000 jobs over the past year, reaching a 10-year high, while the industry's unemployment rate stood at an all-time low, according to an analysis of new government data by the Associated General Contractors of America. Even as firms continued to expand, a new [report](#) finds that most firms are struggling to find enough workers to keep up with demand.

"The construction industry continues to add workers and increase pay at greater rates than the economy as a whole, with job gains spread across both residential and non-residential construction," said Ken Simonson, the association's chief economist. "But contractors report widespread difficulty in finding qualified workers for both salaried and hourly craft positions."

Construction employment totaled 7,259,000 in August, the highest level since May 2008 and a gain of 4.3 percent over the past 12 months. The economist pointed out that the year-over-year growth rate in industry jobs was more than double the 1.6 percent rise in total nonfarm payroll employment. Employment in residential construction — comprising residential building and specialty trade contractors — grew by 12,900 jobs in August and added 136,600 jobs over the past 12 months, a 5.1 percent increase. Employment in nonresidential construction — including building, specialty trades, and heavy and civil engineering construction — grew by 9,600 jobs in August and increased by 160,500 during the past year, a 3.8 percent increase.

Read more: www.agc.org/news/2018/09/07/construction-employment-rises-23000-jobs-august-and-297000-year-even-labor-shortages

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Outbreak of Legionnaire's Disease Associated with The Area of Ashworth Avenue at Hampton, NH

The New Hampshire Department of Health and Human Services' (DHHS) Division of Public Health Services (DPHS), the U.S. Centers for Disease Control and Prevention (CDC), and the Town of Hampton continue to investigate an outbreak of Legionnaire's Disease associated with the Ashworth Avenue area of Hampton, NH.

No additional cases have been confirmed since the previous update. A total of 15 individuals have been confirmed to have Legionnaire's disease associated with Ashworth Avenue and the surrounding area. The last illness onset date is August 24th, which has not changed.

Hampton Legionella Investigation Summary Report

Number of Confirmed Illnesses

	Total
Illness onset dates	6/14/18 – 8/24/2018
Hospitalized	13
Deaths	1
Total	15

[According to the CDC](#), Legionella is found naturally in fresh water. When present in a building's water system, it can grow and spread in devices, such as hot water tanks, showerheads, and hot tubs that are not well maintained. This is why it is so important that [building owners and managers take steps to reduce the risk of Legionella](#) and keep the water in their buildings safe.

The Sands Resort, which received an order from DHHS last weekend to begin immediate remediation of the facility's water system, is complying with the order. The resort has procured an environmental consultant and professional remediation of the building's water system is underway. The hot tubs at the Sands Resort and the Harris Sea Ranch Motel remain closed.

Because DHHS has not identified any new individuals with Legionnaires' disease who report spending time in Hampton after the hot tubs were closed, and because DHHS and the CDC have not identified any new potential sources of community Legionella exposure, we believe the most likely sources of exposure have been eliminated or are being addressed through water system remediation. Therefore, DHHS believes that the current overall health risk to the community is low.

DHHS continues to work collaboratively with the CDC and Hampton officials on the investigation. Full environmental tests from multiple sites in Ashworth Avenue and surrounding areas are expected to be available sometime next week. In addition, several potential Legionnaires' disease cases are still being investigated. DHHS will provide additional information and updates as they are available.

For more information on the Legionella outbreak, please visit www.dhhs.nh.gov/dphs/cdcs/legionella.htm.

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New Study Demonstrates Water Conservation's Pay Off for Ratepayers

Are Los Angeles ratepayers better off by conserving water over the long term? That's the question explored in a new study released by the California Water Efficiency Partnership (CalWEP) and Alliance for Water Efficiency in partnership with the Los Angeles Department of Water and Power (LADWP).

"Many customers and water professionals are perplexed by rate increases when system-wide water use goes down, and blame water conservation and efficiency as the culprit for higher rates," said CalWEP Executive Director Mary Ann Dickinson. "This study shows that water conservation really can pay off for ratepayers over the long term."

The study analyzed LADWP's water conservation efforts and impact over the past several decades. LADWP provides water to more than 4 million residents in the City of Los Angeles. Over the years, LADWP has been a leader in water efficiency and conservation. In addition to conservation programs, LADWP also utilizes water rate structures that encourage efficient water use, billing customers for only the actual amount of water they use (rather than billing a flat rate in combination with volumetric rate, as many California water providers do).

With these programs in place, LADWP customers reduced their water use from 180 gallons per capita per day (GPCD) in 1990 to 106 GPCD in 2016—even as the population increased from 3.5 to 4 million people.

As water use decreased, LADWP avoided roughly \$11 billion in costs from 1990 to 2016 that would have come from having to purchase additional water to serve 500,000 more people, the study found. The result: Customer bills are nearly 27 percent lower today than they would have been without the department's efficient rates and conservation efforts.

"LADWP's case study clearly shows that it's time to stop blaming water conservation for rate increases," Dickinson said. "Conservation and efficient rates pays off through lower utility operating costs, and ultimately can lower the cost burden on customers."

The report, *Lower Water Bills: The City of Los Angeles Shows How Water Conservation and Efficient Water Rates Produce Affordable and Sustainable Use*, is available by visiting the CalWEP website at www.calwep.org.

The California Water Efficiency Partnership is an innovative leader, voice and expert on water efficiency in California that fosters collaboration among a wide variety of stakeholders. Learn more [here](#).

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Industry Calendar

89th Annual Education and Business Conference
Sept. 30-Oct. 4, 2018

ARCSA/ASPE 2018 Annual Conference and Expo
Sept. 29 - Oct. 2, 2018

WaterSmart Innovations Conference and Exposition
October 3-5, 2018

Upcoming Seminars

Earn your Continuing Education with IAPMO training.

ALASKA ONLINE SEMINARS		
ARIZONA SEMINARS		
September 17-21, 2018	Phoenix, AZ	ASSE 5110 Backflow Tester 40 Hour Class and Exam
September 21, 2018	Phoenix, AZ	Cross Connection Control Recertification - 8 hr Course and Exam
November 5-9, 2018	Phoenix, AZ	ASSE 5110 Backflow Tester 40 Hour Class and Exam
November 9, 2018	Phoenix, AZ	Cross Connection Control Recertification - 8 hr Course and Exam
December 17-21, 2018	Phoenix, AZ	ASSE 5110 Backflow Tester 40 Hour Class and Exam
December 21, 2018	Phoenix, AZ	Cross Connection Control Recertification - 8 hr Course and Exam
CALIFORNIA SEMINARS		
September 17-21, 2018	Ontario, CA	ASSE 5110 Backflow Tester 40 Hour Class and Exam
September 21, 2018	Ontario, CA	Cross Connection Control Recertification - 8 hr Course and Exam
November 5-9, 2018	Poway, CA	ASSE 5110 Backflow Tester 40 Hour Class and Exam
November 9, 2018	Poway, CA	Cross Connection Control Recertification - 8 hr Course and Exam
December 3-7, 2018	Ontario, CA	ASSE 5110 Backflow Tester 40 Hour Class and Exam
December 7, 2018	Ontario, CA	Cross Connection Control Recertification - 8 hr Course and Exam
COLORADO SEMINARS		
September 27-28, 2018	Glenwood Springs, CO	ASSE 5110 Cross Connection Control Recertification - 12 hr Course and Exam
Oct 8-12, 2018	Pueblo West, CO	ASSE 5110 Backflow Tester 40 Hour Class and Exam
Oct 11-12, 2018	Pueblo, CO	ASSE 5110 Cross Connection Control Recertification - 12 hr Course and Exam
November 5-9, 2018	Longmont, CO	ASSE 5110 Backflow Tester 40 Hour Class and Exam
FLORIDIA SEMINARS		
October 14, 2018	Pompano Beach, FL	ASSE 5110 Cross Connection Control Recertification - 8 hr Course and Exam
GEORGIA SEMINARS		
October 13-14 & October 20-21, 2018	Atlanta, GA	ASSE 5110 Backflow Tester 40 Hour Class and Exam
IOWA ONLINE SEMINARS		
LOUISIANA SEMINARS		
October 22-26, 2018	Baton Rouge, LA	ASSE 5110 Backflow Tester 40 Hour Class and Exam
October 26, 2018	Baton Rouge, LA	ASSE 5110 Cross Connection Control Recertification - 8 hr course / WSPS Conversion Class
November 5-9, 2018	Kinder, LA	ASSE 5110 Backflow Tester 40 Hour Class and Exam
November 9, 2018	Kinder, LA	ASSE 5110 Cross Connection Control Recertification - 8 hr course / WSPS Conversion Class
MASSACHUSETTS SEMINARS		
Session 10 Training now available - click here for the schedule!		

MINNESOTA SEMINARS

December 3-7, 2018	Anoka, MN	ASSE 5110 Backflow Tester 40 Hour Class and Exam
December 7, 2018	Anoka, MN	ASSE Cross Connection Control Recertification - 8 hr Course and Exam

NEW JERSEY SEMINARS

September 28, 2018	Pennsauken, NJ	ASSE 5110 Cross Connection Control Recertification - 8 hr course and Exam
October 20, 21 & 27, 28	East Brunswick, NJ	ASSE 5110 Backflow Tester 40 Hour Class and Exam
October 28, 2018	East Brunswick, NJ	ASSE 5110 Cross Connection Control Recertification - 8 hr course and Exam

SOUTH DAKOTA SEMINARS

[Click Here to Find a Class](#)

WISCONSIN SEMINARS

June 3-7, 2019	Appleton, WI	ASSE 5110 Backflow Tester 40 Hour Class and Exam
June 7, 2019	Appleton, WI	ASSE 5110 Cross Connection Control Recertification - 8 hr Course and Exam

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> to register online. New training dates are added periodically!

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