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IAPMO Standards Council Issues Four TIAs to UMC

The IAPMO Standards Council on Nov. 21 issued four tentative interim amendments (TIA) revising the 2018 edition of the *Uniform Mechanical Code (UMC)*.

TIA UMC 001-18, 002-18, 003-18, and 004-18 revise *UMC* Chapter 2, Chapter 11, and Appendix E to update ASHRAE extracts to the latest editions of the ASHRAE 15, ASHRAE 34, ASHRAE 62.2, and ASHRAE 90.1 standards.

These TIAs were balloted through the *UMC* Technical Committee in accordance with the Regulations Governing Committee Projects to determine if there existed the

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necessary three-fourths majority support on technical merit and emergency nature to establish the recommendation for issuance.

In determining whether or not to issue a TIA, the Standards Council looks to the Technical Committee letter ballot for a recommendation of support. Upon a full review and consideration of all the information available to it, the Council concluded that a clear and substantial basis exists to issue TIA UMC 001-18, 002-18, 003-18, and 004-18.

To examine [TIA UMC-001-18 in its entirety](#)

To examine [TIA UMC-002-18 in its entirety](#)

To examine [TIA UMC-003-18 in its entirety](#)

To examine [TIA UMC-004-18 in its entirety](#)

TIAs are proposals based on the determination of an emergency nature requiring prompt action to amend code that contains an error or omission that was overlooked during the regular code development process, contains a conflict within the document or with another IAPMO document, or to correct a hazard, promote an advancement in safeguarding the public or provide an opportunity to correct an adverse impact on a product or method of installation.

Should you have any questions, please contact Enrique Gonzalez, Code Development Administrator, by phone at (909) 230-5535 or by email at enrique.gonzalez@iapmo.org.

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IAPMO Seeks Technical Committee Members for 2021 UPC and UMC

The International Association of Plumbing and Mechanical Officials (IAPMO) is seeking volunteers to participate on two technical committees working toward the development of the 2021 editions of the *Uniform Plumbing Code (UPC)* and *Uniform Mechanical Code (UMC)*. The deadline to submit an application is Feb. 1, 2018.

The *UPC* and *UMC* technical committees each seek members in the following categories: manufacturer, user, installer/maintainer, labor, research/standards/testing laboratory, enforcing authority, consumer, and special expert. These committees are assembled in accordance with the Regulations Governing Committee Projects and the Guide for the Conduct of Participants in the IAPMO codes and standards development process. These documents may be viewed at the following URL:
<http://codes.iapmo.org/>



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NOW AVAILABLE ONLINE!

A subscription to Official is just one of the many benefits available to 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.

Within these documents, prospective technical committee participants may find information on the scope and general guidelines for the conduct of these committees.

The provisions of these codes apply to the erection, installation, alteration, repair, relocation, replacement, addition to, and use or maintenance of plumbing and mechanical systems.

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 lend their voice to proposed changes to the code. The 2021 editions of the *UPC* and *UMC* will mark the seventh 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's 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.

Anybody interested in serving on one of these committees may complete the application online at the [Code Development webpage](#).

Should you have any questions, please contact Enrique Gonzalez, Code Development Administrator, by phone at (909) 230-5535 or by email at enrique.gonzalez@iapmo.org.

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New Refrigerant Regulations Impact HVAC Systems



The 2015 Uniform Plumbing and Mechanical Code books are available for sale! Call us today at 1-800-85-IAPMO or visit iapmomembership.org.

Certification Shows Your Expertise



UPC Journey Level Plumber
UMC Journey Level Mechanical
UPC Master Level Plumber
UMC Master Level Mechanical
Accessibility Inspector
UPC Plumbing Inspector
UMC Mechanical Inspector
California Plumbing Inspector
California Mechanical Inspector
Minnesota Plumbing Inspector
Plumbing Plans Examiner
Mechanical Plans Examiner



Certification Sets You Apart

Rising energy costs and a movement toward sustainability are driving changes in the commercial HVAC market. As design engineers, building owners and mechanical contractors focus on increasing comfort and maintaining air quality while reducing overall energy consumption, the technology and components of HVAC systems are constantly being reevaluated.

Two heating and cooling methods often compared in terms of energy consumption and system performance are hydronic systems and variable refrigerant flow (VRF) systems. Hydronic systems provide water-based heating and cooling through pipes, ductwork and other components such as pumps, drives, controls, heat exchangers and valves. VRF systems use refrigerant as the primary heating/cooling medium, comprised of a main compressor unit connected through refrigerant lines to multiple indoor cassette units that can be individually controlled.

Updated refrigerant safety guidelines

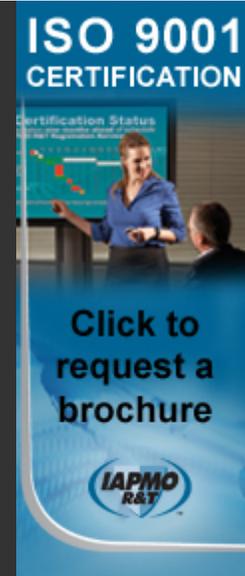
As the industry continues its shift to sustainable building practices to maximize building performance while minimizing environmental impact, the type of HVAC system installed is an important factor in realizing energy-efficiency targets.

Since the 1970s, the HVAC industry has seen major changes in regulations restricting and banning the use of certain types of refrigerants. In late 2016, the U.S. Environmental Protection Agency (EPA) issued major changes to the Section 608 rules of the Clean Air Act, which govern the handling, use and sale of refrigerants. Most notable is the regulation banning the use of hydrofluorocarbons such as R-410A in new chillers (air-cooled, water-cooled, scroll, screw and centrifugal), rooftop units and VRF systems beginning in 2024.

Under the updated rules, the EPA expanded the refrigerant management program, extending the regulations to non-ozone-depleting substitutes such as hydrofluorocarbons. This action lowers the allowable leak rate for comfort cooling and refrigeration appliances. It also incorporates industry best practices, such as verifying repairs and conducting annual leak inspections for systems that have lost a small amount of their refrigerant charge.

While it's possible for leaks to develop in both hydronic and VRF systems, a leak in a VRF system can be deadly. Refrigerant leaks can't be detected by either sight or smell, making them hard to find and repair. In spaces with minimal ventilation, large concentrations of refrigerant gas in the air can put people at risk of asphyxiation.

IAPMO, in partnership with ASHRAE, has provided codes and standards that inspectors use to ensure these systems are installed correctly. Even though contractors



do their best to follow code compliance, further education and awareness are needed to reduce errors and omissions during HVAC system inspections.

Specifically, inspectors should familiarize themselves with ASHRAE 15.8.10.2 and IAPMO 2015 Uniform Mechanical Code Chapter 11, Subsection 1109.4.1, Protection from Mechanical Damage, which states:

"Passages may not be obstructed by refrigerant piping. Refrigerant piping shall not be located in an elevator, dumbwaiter or other shaft containing a moving object, or in a shaft that has openings to living quarters, or to means of egress. Refrigerant piping shall not be installed in an enclosed public stairway, stair landing or means of egress."

Typically, violations occur when the installing contractor places the refrigerant piping down hallways or in a large open office floor plan, both of which are considered means of egress. It is also important to note that ceiling-mounted fire suppression and sprinkler systems in these areas are still considered as the means of egress.

Hydronic systems with cooling units also require refrigerant to operate, but the average system uses 66 to 75 percent less refrigerant than a VRF system of the same size, according to the Hydronics Industry Alliance. Hydronic systems are not exempt from the ASHRAE and IAPMO codes, however, it is important to note that the refrigerant is typically contained within a mechanical room, which, by code, is required to have the proper ventilation to deal with a potential leak. To address additional questions or for further clarifications, please refer to the IAPMO *Uniform Mechanical Code*, which can be found [here](#).

Kyle DelPiano is the Business Development Manager – CBS market for Xylem. He holds a bachelor of science degree in polymer and fiber engineering from Auburn University. He has nearly 10 years of experience in the HVAC industry in a variety of sales and training roles. In addition, he is an active HIA-C and ASHRAE chapter member and is LEED AP certified.

The views and opinions expressed in this article are those of the author and do not necessarily reflect the official policy or position of the IAPMO Group.

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OdySea Aquarium Reels in America's Best Restroom® Title

The public is hooked on the America's Best Restroom winner! Cintas Corporation(NASDAQ: CTAS) was named the OdySea Aquarium in Scottsdale, Ariz.

as the winner of its 16th annual America's Best Restroom®.

"From Penguin Point to our SeaTrek® Helmet Diving, we have countless amazing attractions, and now we can add our restrooms to that list," said Dr. Amram Knishinsky, founder, OdySea Aquarium. "We're proud to accept the award and are extremely grateful to everyone who voted for us."

As the winner, the OdySea Aquarium will receive the royal restroom treatment from Cintas. This includes \$2,500 in facility services or restroom cleaning to keep their restrooms Ready for the Workday®.

The other finalists in the 2017 America's Best Restroom Contest include:

- Carmel Beach — Carmel-by-the-Sea, CA
- Doughnut Plant — New York, NY
- Elsa — Brooklyn, NY
- La Boucherie on 71 — Los Angeles
- Off the Waffle — Portland, Ore.
- Palmetto Brewery — Charleston, SC
- Renaissance Chicago Downtown Hotel — Chicago, IL
- San Francisco Museum of Modern Art — San Francisco
- Sinema Restaurant + Bar — Nashville, Tenn.

"This fun, engaging contest shines a spotlight on trending toilets while also conveying a critical message that restroom hygiene impacts the success of a business," said Sean Mulcahey, Marketing Manager, Cintas. "This year, the local community of Scottsdale rallied together and showed that there is value in a restroom that's creative and memorable for guests."

The ten finalists were selected based on cleanliness, visual appeal, innovation, functionality and unique design elements. You can nominate a restroom for the 2018 contest here: <http://www.bestrestroom.com/us/nominate.asp>.

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Dodge Momentum Index Remains Strong in November

The Dodge Momentum Index surged again in November, climbing 13.9% to 149.5 (2000=100) from the revised October reading of 131.3. The Momentum Index is a monthly measure of the first (or initial) report for nonresidential building projects in

planning, which have been shown to lead construction spending for nonresidential buildings by a full year. The November increase was the second month of strong gains after a four-month period of softness. November's advance was the result of healthy gains in both the commercial and institutional sectors. From October to November, the commercial portion of the Momentum Index advanced 19.6%, while the institutional portion grew 5.5%. On a year-over-year basis, the Momentum Index is now nearly 21% higher, with the commercial portion up 24% and the institutional side up 17%. The turnaround in October and November suggest that building activity should continue to expand in 2018.

In November, 21 projects each with a value of \$100 million or more entered planning. For the commercial building sector, the largest projects include a \$300 million mixed use facility containing two hotels at Atlanta's Hartsfield-Jackson Airport and a \$230 million Hayden Ave Life Sciences office campus in Lexington MA. The leading institutional projects were a \$200 million UPMC Vision and Rehabilitation Hospital in Pittsburgh PA and a \$200 million project that will provide additions and alterations for several schools within the Uniondale (NY) School District.

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AHR Expo Donates \$20,700 to the Chicago Lighthouse through Innovation Awards Program

The [AHR Expo](#), the world's largest HVACR event being held in Chicago in January, is giving back to the Chicago community with a donation of \$20,700 from its Innovation Awards program to the Chicago Lighthouse.

Each year, the AHR Expo donates the entry fees from the Innovation Awards competition to a charitable organization within the region where the Show is being held.

For 2018, the AHR Expo has chosen to donate the funds to the Chicago Lighthouse, a non-profit organization serving the blind, visually impaired, disabled and Veteran communities with comprehensive vision care and support services. Founded in 1906,

the Lighthouse has pioneered a range of programs for over 110 years to help its clients lead richer, more independent lives.

Read more: <https://ahrexpo.com/ahr-expo-donates-to-chicago-lighthouse/>

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California Department of General Services Job Openings

Inspector: DGS is seeking experienced individuals in building inspection and oversight. Build your career by tackling exciting new major construction and renovation projects in California. Click <https://www.jobs.ca.gov/JOBSGEN/7GS1601.PDF> to take the Construction Inspector II exam today.

Supervisor: Do you have experience as a construction superintendent or construction foreman, have you been responsible for managing quality assurance and code compliance for major commercial building construction. Build your career and help reshape California's future skyline, take the Construction Supervisor I exam today: <https://www.jobs.ca.gov/JOBSGEN/7GS1601.PDF>

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NABCEP Introduces New Solar Heating and PV System Inspector Credentials

Click here to read more about this new credential.

Industry Calendar

NAHB International Builders' Show
January 9-11, 2018
Orlando, FL
www.buildersshow.com

The Kitchen & Bath Industry Show (KBIS)
January 9-11, 2018
Orlando, FL
www.kbis.com

AHR Expo 2018
Jan 22-24, 2018
Chicago, IL
<https://ahrexpo.com/>

6th Annual Emerging Water Technology Symposium
May 15-16, 2018
Ontario, CA
<http://www.iapmo.org>

Upcoming Seminars

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ARIZONA SEMINARS

December 18-22, 2017	Phoenix, AZ	ASSE 5110 Backflow Tester 40 Hour Class and Exam
December 22, 2017	Phoenix, AZ	Cross Connection Control Recertification - 8 hr Course and Exam
February 12-16, 2018	Phoenix, AZ	ASSE 5110 Backflow Tester 40 Hour Class and Exam
February 16, 2018	Phoenix, AZ	Cross Connection Control Recertification - 8 hr Course and Exam
CALIFORNIA SEMINARS		
December 11-15, 2017	Ontario, CA	ASSE 5110 Backflow Tester 40 Hour Class and Exam
December 15, 2017	Ontario, CA	Cross Connection Control Recertification - 8 hr Course and Exam
February 5-9, 2018	Ontario, CA	ASSE 5110 Backflow Tester 40 Hour Class and Exam
February 9, 2018	Ontario, CA	Cross Connection Control Recertification - 8 hr Course and Exam
COLORADO SEMINARS		
January 17-19, 2018	Arvada, CO	ASSE 5120 Cross-Connection Control Surveyor
February 19-23, 2018	Arvada, CO	ASSE 5110 Backflow Tester 40 Hour Class and Exam
LOUISIANA SEMINARS		
January 8-12, 2018	Baton Rouge, LA	ASSE 5110 Backflow Tester 40 Hour Class and Exam
January 12, 2018	Baton Rouge, LA	ASSE Recertification / LA Conversion - 8 hour Course and Exam - PHCC Member
MASSACHUSETTS SEMINARS		
Session 10 Training now available - click here for the schedule!		
MINNESOTA SEMINARS		
2015 Code Overview Featuring Emerging Technology		
February 26-March 2, 2018	Anoka, MN	ASSE 5110 Backflow Tester 40 Hour Class and Exam
March 2, 2018	Anoka, MN	ASSE Cross Connection Control Recertification - 8 hr course and Exam
SOUTH DAKOTA SEMINARS		
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