



Ron George Design & Consulting Services

Web site: www.rongeorgedesign.com

3525 N. Dixie Hwy, Monroe MI 48166
Ph: 734-322-0225
E-mail: RGDC@rongeorgedesign.com

February 27, 2009

Issue # 7



Code & Standard Pipeline



Inside This Issue:

Plumbing Industry News

Pages 2-7

International Code Council (ICC) News

Pages 8-12

International Association of Plumbing and Mechanical Officials (IAPMO) News

Pages 13-14

American Society of Sanitary Engineering (ASSE) News

Pages 15-17

American Society of Testing and Materials (ASTM) News

Pages 18-19

American Society of Mechanical Engineers (ASME) News

Pages 20-22

National Sanitation Foundation (NSF) News

Pages 23-24

World Plumbing Council (WPC) News

Page 25

INDUSTRY CALENDAR

March

- 1-3 **AMCA International Technical Seminar**
Orlando Florida
- 1-6 **AMCA International Spring Meeting**
Orlando Florida
- 1-5 **MCAA Convention**
JW Marriott Desert Ridge Resort & Spa Scottsdale, Arizona
- 4-6 **Water China**
Guangzhou, China, booth #A077
- 10-14 **ISH Frankfurt**
Frankfurt, Germany
- 11 **Dry Drains Forum**
Frankfurt, Germany
- 11-12 **World Plumbing Council General Meeting**
Frankfurt, Germany
The Effekt Room Hall 3 at ISH Messe Frankfurt Showground
- 23-24 **ICC Code Forum 2009**
New Orleans, Louisiana

April

- 15-17 **IAPMO Green Technical Committee**
Ontario, California
- 15-18 **ASSE Mid-Year Meeting**
Embassy Suites
Independence, Ohio
- 22-23 **ASTM Committee Meeting**
Vancouver, British Columbia, Canada
- 23 **National Standard Plumbing Code NSPC**
deadline for code change proposals that will appear in 2010 supplement of the NSPC
- 24 **ICC International codes deadline** for code change proposals for the 2012 codes
- 28-5/3 **K/BIS Kitchen/Bath Industry Show & Conference**
Georgia World Congress Center
Atlanta, GA
- 29-5/2 **PHCC 127th Annual Convention**
Arlington, Virginia

May

- 1-3 **Kitchen/Bath Industry Show - Product Show**
Atlanta, Georgia
- 4-8 **IAPMO Technical Committee Meeting**
St. Louis, MO

June

- 8-11 **NFPA World Safety Conference & Expo**
Chicago, IL

September

- 27-10/1 **IAPMO Conference**
San Diego, CA

October

- 22-25 **ASPE Technical Symposium**
Dearborn Hyatt Regency, Dearborn, MI
- 24-11/11 **ICC Code Hearings**
Baltimore, MD

Interested in Advertising in this Newsletter?
Contact Kara Krimmel at 734.322.0225

Newsletter published by:

Ron George Design & Consulting Services

3525 N. Dixie Hwy.

Monroe, MI 48162

Phone: (734) 322 - 0225

Fax: (734) 322 - 2949

Editor: Kelly Stumpmier

Website: www.rongeorgedesign.com

Plumbing Industry News

International Code's Hearing Process to be Revised

*By: Ron George, CIPE, CPD, President,
Ron George Design & Consulting Services
www.rongeorgedesign.com*

The International Code Council Board of Directors has reviewed information from the ICC Task Force on Hearings and revised the Code Development Process after several years of input from membership and industry and they have made revisions to the process after considering the task force's recommendations. Over the last several code change hearing cycles, the ICC staff and code change participants have spent many grueling hours at the code hearings. The old schedule was a very stressful time for staff and participants because the code hearings would almost always run late. The schedule was for code hearings to begin at 8am and generally end at 5pm. The hearings would usually fall behind as testimony on some of the more high profile or disputed code changes went on for hours. This caused the a bottleneck and the code hearings would run behind schedule and often the hearings would continue late into the evening in an effort to get the hearings back close to what was published in the code hearing monograph. If the code hearings fall way behind schedule the starting times for the hearings are moved up for the following day. This creates a situation where the hearings would go until about midnight and sometimes later then they would begin the next day as early as 7am. The code organization's staff and participants have to be there to work these marathon hours. This would go on for two weeks. Each year people would say, "We need to figure out a better way to run the hearings so that people are not working on 5 or 6 hours of sleep". ICC appointed a Task group to look into streamlining the code development process. The committee looked at all of the processes and came up with some recommendations for improvements. It looks like they have worked out a solution that will ultimately provide a more streamlined process and it will require some adjustment by the participants to get used to the process.

The goals for the streamlined process were to:

1. Maintain the International Code Council Governmental Consensus Process where anyone can speak on a code change.
2. Reduce costs, both to the organization and the members
3. Increase electronic processing of code change forms to expedite the process.
4. Schedule all Final Action Hearings at the Annual Business Meeting, which rotates locations to various cities in each quadrant of the country.
5. Schedule Code Development Hearings at one central re-occurring location.

6. Increase participation
7. Maintain the importance of in-person attendance at the Code Development Hearings and Final Action Hearings
8. Increase importance of successful Assembly Action
9. Maintain (or increase) education offerings
10. Maintain the 3-year publication cycle
11. Schedule Code Development Hearings and Final Action Hearings at about the same time every year.

The Task Group took the goals into consideration and worked out the following revised plan for addressing the code hearing process. The revised plan will include:

1. The revised code hearing process will maintain the 3-year publication cycle
2. They will maintain the ICC Governmental Consensus Process.
3. A very important change and one that will affect the plumbing, mechanical and fuel gas disciplines the most will be dividing the codes into two groupings, with each grouping having Code Development and Final Action Hearings occurring in the spring and fall of the same year during the first two years of the publication cycle. The Plumbing, Mechanical and Fuel Gas (PMG) code changes will be heard in the first group or Group (A). This will mean the plumbing industry will be up to bat first. It is like changing from a two inning game to a one inning game and they give you the a new rulebook to read on the bus on the way to the game. There will be very little time to review the 2009 code from the time of publication until the time the code changes are due for the 2012 code cycle. I'm hoping they will consider alternating the groupings so that the PMG grouping will be in the second grouping in the future so there will be ample time to review the code after the code is published and before the final deadline for changes.
4. They will unveil all the new codes at the Annual Conference in the third year of each three year process.
5. They will be holding the Code Development Hearings at the same central location every April/May.
6. They will hold the Final Action Hearings at the Annual Conference locations which will continue to rotate through the four quadrants of the U.S. in late October/early November.

In the previous 3 year code change cycle, there were two 18-month code hearing processes with two initial code hearings and two final action hearings or two bites at the apple every three year cycle. The new code development process as it has been announced will be only one initial code hearing and one final action hearing per three year cycle or one bite at the

Plumbing Industry News

apple. The old code change hearing schedule usually had more code changes in the second round of hearings. This was probably because as users became familiar with the new codes they would propose code changes. It appears the plumbing, mechanical and fuel gas industries will not have the luxury of waiting to put their code change proposals in later in the code cycle. The 2009 Codes are scheduled to be published and available for purchase in early March of 2009 and the code changes for the 2012 edition of the plumbing, mechanical and fuel gas and the rest of Group "A" codes are due on April 24th, 2009.

You should contact the International Code Council (www.iccsafe.org) as soon as possible and inquire about purchasing your 2009 International Plumbing, Mechanical and Fuel Gas codes so you can review them and see if you want to make any proposed code changes for the 2012 code change cycle. The new plan has split the codes into two code groups and each code group will be heard during a given time period. The Plumbing, Mechanical and Fuel Gas codes have been selected to be in group "A" or the first group of codes to be heard. If they are published on time, and if everyone rushes out and purchases one right away they will have until April 24th to make proposed changes. This means there will be a very small window of opportunity to propose code changes for the 2012 edition of the code unless they move the submission date for code change proposals back. Although the current schedule calls for code changes to be submitted by April 24.

The plan follows a series of steps beginning with membership input to the Task Force on Hearings, chaired by Director John LaTorra. The primary Task Force goals to reduce hearing length and increase participation acted as guiding principles throughout the process. After the Task Force submitted its report to the Board in 2008, the Board made additional revisions in support of splitting the hearings into two groups to reduce the hearing length and increasing participation.

The features of the plan address the *most frequently voiced concerns* raised during the review process including:

1. Reduce the length of the hearings, in total days and in daily sessions
2. Increase participation
3. Maintain the importance of in-person attendance
4. Increase the importance of a successful assembly action at the Code Development Hearings
5. Maintain or increase educational offerings
6. Schedule Code Development and Final Action Hearings at about the same time every year.
7. Code edition available 9 months prior to code change deadline. (This is ideal, but the first cycle will probably have a compressed schedule of about 6 or 7 weeks.)
8. Code change deadline: First working day in January for the code group under consideration. (This should fall into place in group 2 and in subsequent years.

The Logistics of the Code Development Hearings

1. There will be two tracks occurring. Group "A" in year one and Group "B" in year two.
2. Length of the hearings is reduced to 9 days (Weekend – Weekdays - Weekend)
3. The daily hearing schedule is proposed to be reduced to manageable number of hours per day.
4. Modifications will be permitted: They must be in accordance with the rules. Technical and editorial modifications have always been permitted as long as they do not change the intent or scope of the code change. The chairman must rule the modification in order according to rules governing modifications)
5. Successful assembly action at the Code Development Hearing becomes the initial motion to be considered at the Final Action Hearing.
6. The Code Development hearings will be held at a reoccurring location in the April/May time-frame.

The Logistics of the Final Action Code Hearings

1. There will be one track for both groups "A" and "B".
2. The length will be reduced to 6 days following the Annual Conference
3. Daily hearing schedule reduced to manageable number of hours per day
4. Held in conjunction with the Annual Conference in the October/November time-frame
5. ICC will use their website for posting code development documents; followed by complimentary CD mailings of the proposed changes and comments.
6. Proposed code groupings:

Group "A" Codes:

International Building Code – Egress
International Building Code – Fire Safety
International Building Code – General
International Building Code – Structural
International Fuel Gas Code
International Mechanical Code
International Plumbing Code
International Private Sewage Disposal Code

Group "B" Codes:

International Energy Conservation Code
International Residential Code -
Building/Energy
All Codes - Administration (Ch. 1)
International Existing Building Code
International Fire Codes
I Performance

Plumbing Industry News

International Property Maintenance Code
International Residential Plumbing &
Mechanical Code
IRC Mechanical/Plumbing
International Wild land Urban Interface Code
International Zoning Code

8:30 am - 4:00 pm 2006 IRC High Wind and Flood Residential
Resistant Construction
8:30 am - 4:00 pm 2006 IBC Architectural Applications for
Designers
8:30 am - 4:00 pm The 2008 National Electrical Code - New
Provisions

The changes will allow the International Codes to retain the three year publication schedule and eliminate the need for Supplements. The process is supposed to eventually transition the code update process to a maintenance process after 10 years of initial drafting and development and Adolf Zubia will explain how this works at the March 22, 2009 Town Hall meeting prior to the ICC Codes Forum in New Orleans, LA.

The compressing of the two 18 month cycles into two 12 month cycles with each annual cycle addressing half of the I-codes provides a streamlined process. The third year will allow for publication of the I-Codes in the spring and publication of the supporting documents such as code commentaries, code study companion books, and PowerPoint training seminars. The International Code Council can then hold code training sessions on the upcoming code in the third year annual conference.

The training session for the 2009 Codes will be held March 22 – 25 in New Orleans, LA.

Board President Adolf Zubia will provide additional information forums including a Town Hall meeting at the Codes Forum in New Orleans, from 4 p.m. to 6 p.m. on Sunday, March 22, 2009 at the Sheraton New Orleans Gallery Room.

ICC Code Forum Schedule

SATURDAY, MARCH 21

8:00 am - 5:00 pm ICC Board of Directors Meeting

SUNDAY, MARCH 22

8:00 am - 12:00 pm ICC Board of Directors Meeting

4:00 pm - 6:00 pm Town Hall Meeting with Board of Directors and CEO

1. Update from President's Advisory Committee regarding issues from Minneapolis Hearings
2. Status Regarding Changes to Hearings
3. Progress Report on ICC Issues
4. Q & A

MONDAY, MARCH 23

8:30 am - 4:00 pm When Disaster Strikes (Day 1 of 3)

8:30 am - 4:00 pm 2006 I-Codes and Green Building

8:30 am - 4:00 pm 2006 IFC Performing Commercial Fire Plan Reviews (Day 1 of 2)

8:30 am - 4:00 pm 2006 IBC Fundamentals Nonstructural Provisions

8:30 am - 4:00 pm Ethics and Communication

8:30 am - 4:00 pm Significant Changes to the 2006 IMC and IFGC

8:30 am - 4:00 pm Significant Changes to the 2006 IPC

TUESDAY, MARCH 24

8:30 am - 4:00 pm When Disaster Strikes (Day 2 of 2)

8:30 am - 4:00 pm An Introduction to the ICC 700-2008 National Green Building Standard

8:30 am - 4:00 pm 2006 IFC Performing Commercial Fire Plan Reviews (Day 2 of 2)

Question and Answer: Hot Water Shortage

From your e-mail

Question: I have read through the literature and maintenance suggestions for my water heater and I've printed out everything I could find on the internet and I will try to attempt service my own water heater. Before I get started, I would like to know if you could help me with a new problem we are experiencing with our water heater. Last year we turned our water heater thermostat down to a lower setting.

There are three (3) of us in a household who all take showers in the morning. It begins with our niece who takes long showers, but in my opinion, not 40 gallons worth (the size of our tank). By the time I get in the shower and then my husband, the water is only warm. I can't get it hot, no matter how much I turn the faucet. This is not everyday, but has started a couple of weeks ago and is happening more often. I sincerely do not feel it is a 15 minute shower that has given us this new problem, but rather something that is happening with the tank. The tank is 5 years or less. The size is 40 gallon. It is in the garage up off the floor. Strapped to the walls and wrapped in a blanket. We do have a water softener. The tank was changed out when we had a plumbing redone to copper. Do you have any suggestions where I should start looking for the problem? Thank you very much.

Ron's Answer: I have several thoughts based on your comments. First, you should know a 40 gallon water heater only delivers about 30 gallons of hot water during a continuous draw. The last 25 to 30 percent water drawn from the tank would be too cool to be useful. The following five things are possible with the scenario you describe:

1. Did you try turning the thermostat back up? If you adjust the water heater thermostat, make sure you readjust the maximum temperature limit stop on the shower valve. If you do not have a maximum temperature limit stop install a thermostatic mixing valve and set it to a temperature below 120 degrees Fahrenheit.
2. If that is not the case, did the routine of all three of you showering at about the same time start recently, or were you able to share the water successfully until a couple of weeks ago? If your bathing routine became more compressed in time or if the showers became longer, the water heater may not be able to recover fast enough between showers to provide enough hot water for all of your showers.
3. The cold water could be getting colder. If this is occurring in the fall or winter months when the city water main (Cold water) is continually getting colder the amount or percentage of hot water mixed in the shower valve will be more. The lakes and streams where the water supply is drawn from get

colder so the cold water temperature gets colder. This causes you to have to use a higher percentage of hot water to get the same mixed temperature for a shower. Consider using a low-flow shower head if you have a compensating type shower valve and also consider spreading out the time between showers to allow the water heater to recover. To check the flow rate on your shower head, hold a 1 gallon bucket under the shower head and see how many seconds it takes to fill.

You should be able to calculate the shower head flow rate from that test. If you have an older 4 gallon per minute showerhead and assuming only 30 gallons of a 40 gallon heater are usable and about 3 GPM of the 4 GPM flowing out of the shower head is hot water you would have about 10 minutes of hot water for a continuous draw. The amount of time will vary with the changes in the storage temperature of the hot water, the incoming cold water temperature, the flow rate of the shower head and the size of the storage tank. The easiest things for you to control without major changes is the shower head and flow rate and then the storage temperature of the water heater. (If the water heater thermostat is adjusted to a higher temperature consider installing a thermostatic mixing valve conforming to ASSE 1017 at the heater to limit the maximum hot water delivery temperature to 120 degrees Fahrenheit. The easiest thing is to use a low flow shower head. If that does not help enough consider adjusting the water heater storage temperature and then readjusting the maximum temperature limit stop on the shower valve or using a thermostatic mixing valve.

4. The water heater could be scaling up and not allowing the heating element to heat the water as efficiently. You mentioned you have a water softener. If for a period of time the softener ran out of sodium then the minerals in the water could have become baked on to the heating surfaces of the water heater making it operate with less efficiency.

5. However, if the three of you successfully took showers up until a couple of weeks ago and the problem has started to get worse suddenly as you describe, another explanation is the dip tube could have broken-off or corroded to a point where it has a hole in the cold water dip tube near the top of the heater that allows cold water to enter the water heater at the top portion of the water heater. The cold water dip tube directs the incoming cold water to the bottom of the water heater so it does not mix with the hot water at the top of the tank. There have been many problems with cheap plastic dip tubes in water heaters over the past decade or so that caused the water heater manufacturer's to change the materials of the dip tubes to address the problem. If the cold water inlet dip tube has failed, this would allow cold water to mix with the hot water that is in the top of the heater and allow short cycling of the cold water to the hot water outlet which would lower the delivery temperature of the hot water shortly after the flow begins. A quick check of the water heater dip tube would confirm or deny this scenario. You could check this by disconnecting the plumbing on the cold water side, taking out the nipple, and then taking out the dip tube.

Plumbing Industry News

Low Flow Fixtures can Lead to Dry Drains and Increase Scald Hazards

*By: Ron George, CIPE, CPD, President
Ron George Design & Consulting Services*

The recent efforts to be green and reduce water consumption have manufacturers in a race to produce the lowest water consumption products possible. From a distance this would appear to be a good thing. Saving water is perceived as being right up there with motherhood, apple pie and everything that is good. At first glance you might think, who could be against saving water? Well, there is a ground swell of concern about low flow plumbing fixtures and the consequences of poor drain-line carry and the resulting problems of increased drain line blockages and sewage overflows and spills associated with poor drain line carry. Another problem that has been identified with low flow plumbing fixtures is the increased risk of thermal shock and scalding with low flow shower heads.

The latest issue with drain-line carry which stems from the global need to reduce water consumption due to climate change, population growth, prolonged drought and excessive consumption has hit a major hurdle. Governments, regulators and industry around the world have failed to realize the impact of the loss of flow on the overall plumbing system.

The reduction in fixture flows associated with ultra low flow (ULF) fixtures and waterless fixtures has created a real problem with hydraulic depth of flow or a flow deep enough to carry away suspended solids. There is a forum scheduled during the ISH meeting in Frankfurt Germany that is titled the Dry Drains Forum. Drain line carry issues or dry-drains are now a major plumbing performance issue or problem which is showing up in many regions including the USA, Europe, China, Australasia and the Middle East. The effects of reduced flow are now being observed in drain line performance within and under buildings, in street mains and are also causing further issues at treatment works. You can see a definite increase in the number of calls for drain line cleaning services since the implementation of the 1992 Energy Policy Act legislation went into effect in 1994 for residential and 1996 for commercial in the US. Hence the challenge for industry is to ensure that existing and new drainage systems work as they should but with less water flow.

The solutions are varied and still being worked on. More industry dialogue and consultation between continents is urgently required. Research will probably lead to a minimum flow rate for a given pipe size in order to achieve a hydraulic depth of flow. The key will be designing fixture waste discharges to provide a flow

profile that will carry the waste a sufficient distance downstream for a given pipe size. For example: A water closet may have a drain line carry that meets the standard of 40 feet in a 3 inch pipe. If the same water closet is discharging into an existing 6 inch pipe, the drain line carry will be significantly less. In the United States current fixture standards have a drain line carry test which requires the contents to be carried 40 feet down the pipe. Many have questioned this distance as 40 feet appears to be an inadequate distance to get the waste to the public sewer. Others feel the distance should be farther or closer to 100 feet to be adequate for the majority of installations.

The **Dry Drains Forum 2009**, is to be held on Wednesday 11 March alongside ISH 2009, and will bring together for the first time, the world's leading researchers and industry experts who will present a global view of the situation, progress on research outcomes and possible transitory and permanent solutions for the plumbing industry.

This important technical dialogue will be chaired by Emeritus Professor John Swaffield of Heriot Watt University, Edinburgh Scotland. Prof Swaffield has been the acknowledged global expert in building drainage research and development for more than 30 years.

An expert speaker panel has been assembled from across the globe, including USA, Scotland, Germany and Australia for this important industry half-day event. If you will be travelling to the ISH Show in Frankfurt Germany, please consider adding to your ISH 2009 experience by attending this unique event. You and your staff will never have the opportunity again of hearing from and interacting with such an eminent group of speakers on this subject matter. I have been asked to speak at the dDry Drains forum to discuss some of the items in this column. While there I will visit the International Sanitation and Heating (ISH) Fair and Expo. I will report on the highlights in a future column.

Organizers of the Dry Drains Forum

The 2009 Dry Drains Forum is an initiative of World Plumbing Info website at: <http://www.worldplumbinginfo.com>. The event is in conjunction with the World Plumbing Council <http://www.worldplumbing.org> and it will be held during the International Sanitation and Heating (ISH) Exposition in Frankfurt Germany. Website: www.ish.messefrankfurt.com

Plumbing Industry News

A Sad Loss for the Plumbing Industry

By: Ron George, CIPE, CPD

The Plumbing & Mechanical Industry mourns the untimely death of Roscoe King. Roscoe passed away after suffering a heart attack on January 12, 2009. Roscoe held both plumbing and contractor licenses, Roscoe was a member of several vital committees representing the City and County of Los Angeles, and his was very active with IAPMO and health and safety codes and standards in Southern California.

Roscoe was one of the Plumbing Code Instructors for the Annual IAPMO Educational Seminar Series. I had the good fortune of playing on his foursome in a recent plumbing industry golf outing and attended many of the plumbing code classes he presided over at IAPMO Meetings. I came to know and respect him well. Roscoe shared his experience in the classroom, as well, instructing engineers, building officials, field inspectors and office managers on code changes and teaching courses for the Plumbing, Heating and Cooling Contractors of the Greater Los Angeles Area.

With the County of Los Angeles Building & Safety Division, Roscoe developed and implemented plumbing and mechanical code training for all county combination building inspectors and provided technical support for field inspectors on plumbing and mechanical issues. Roscoe recently won the "IAPMO Government Person of the Year Award" at the IAPMO Fall Conference in Atlanta and he guided IAPMO's Southern California Chapter for five years. He was a good friend and an invaluable part of the industry. I would like to extend my condolences to his family. He will be missed by all that knew him.



Roscoe King accepting the Government Person of the Year Award at the IAPMO Meeting in Atlanta, 2008

New Evaluation Program Verifies Product Stability

ICC Evaluation Service Inc.
News Release

Manufacturers are introducing products every day that they say are green or sustainable. Now, with a **SAVE** evaluation from ICC-ES, they can prove their claims are verified. The **Sustainable Attributes Verification and Evaluation** program provides independent confirmation that evaluated building products are sustainable and may qualify for points under major green rating systems.

A **SAVE** evaluation involves both inspection of the manufacturer's production process and reviews of independent product testing, where required. Manufacturers that successfully complete the evaluation process receive a **Verification of Attributes Report (VAR)** in one or more of nine key categories: recycled content (postconsumer/preconsumer), regional materials, bio-based materials, certified wood products, solar reflectance index and thermal emittance of roofing materials, volatile organic compound content and emissions (adhesives and sealants), volatile organic compound content and emissions (paints and coatings), urea formaldehyde resin content in composite wood products and volatile organic compound content and emissions of floor coverings.

"**SAVE** brings great benefit to manufacturers, specifiers, designers and code officials because it's designed to be useable under the three major green rating systems: the new National Green Building Standard, LEED and Green Globes," said Steve Thorsell, ICC-ES Director of Special Projects. "A **VAR** (Verification of Attributes Report) from ICC-ES gives manufacturers proof they can show their customers that the sustainability of their product is indeed verified, a significant advantage in an increasingly competitive marketplace. Code officials, designers and specifiers know to look for products evaluated under **SAVE**."

Manufacturers who want their construction products or systems evaluated under the **SAVE** program can view the Application Details at saveprogram.icc-es.org/details. ICC-ES maintains a list of products successfully evaluated under the **SAVE** program in a Directory of Reports available at saveprogram.icc-es.org/reports. ICC-ES is a nonprofit, public-benefit corporation that conducts technical evaluations of building products, components, methods and materials. ICC-ES is a subsidiary of the International Code Council.

The International Code Council, a membership association dedicated to building safety and fire prevention, develops the codes used to construct residential and commercial buildings, including homes and schools. Most U.S. cities, counties and states choose the International Codes, building safety codes developed by the International Code Council.



New energy code expected to be 15% more efficient

The 2009 edition of the *International Energy Conservation Code* (IECC)—the national model energy code of choice for states, cities and counties that adopt codes—is published and now available for adoption by jurisdictions.

The IECC published by the International Code Council is tied to federal law determined by Congress and the U.S. Department of Energy (DOE) through the Energy Policy Act of 1992. It is the only energy code that serves as the basis for federal tax credits for energy-efficient homes, energy efficiency standards for federal residential buildings and manufactured housing, and state energy code determinations.

Recent legislation passed by the U.S. House of Representatives includes \$3.4 billion in energy assistance grants for states if the International Code Council’s 2009 IECC is adopted and administered. The American Recovery and Reinvestment Act (HR 1) requires governors who want a share of state energy assistance grants to certify their state will adopt an energy code for one- and two-family homes, townhouses and low-rise, multiple-family buildings that meets or exceeds provisions in the 2009 IECC for residential construction, and the ANSI/ASHRAE/IESNA Standard 90.1-2007, as referenced in the 2009 IECC for commercial buildings.

The 2009 IECC will produce approximately 15% in energy efficiency gains compared to the 2006 edition, according to DOE. As a result, homes and commercial buildings, including schools and hospitals built in jurisdictions that adopt the 2009 IECC, will consume less energy and help the environment by reducing emissions associated with building operation.

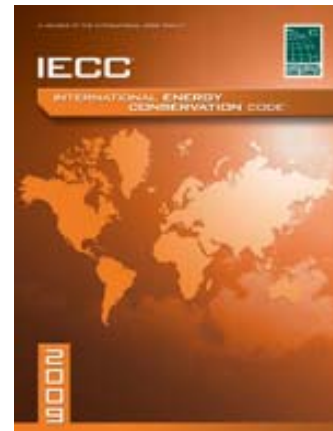
A U.S. Department of Energy (DOE) ruling published in the Federal register clears the way for establishing the 2009 *International Energy Conservation Code* (IECC) as a safe harbor equivalent to the ANSI/ASHRAE/IESNA 90.1 Standard. The ruling says the Standard, or equivalents like the 2009 IECC, would achieve greater energy efficiency in commercial buildings compared to previous editions.

New energy efficient provisions in the 2009 IECC include:

- Improved window and skylight efficiencies for homes constructed in “warm humid” and “hot humid” climates which lower energy costs during cooling periods.

- An increase in insulation *R*-values for walls, floors and basements in cold climates to achieve greater heating and cooling savings.
- High-efficiency light bulbs as a requirement in at least 50% of permanent lighting fixtures in new homes.
- New separate requirements for high-rise condominiums and apartments regarding commercial insulation and window tables.
- Radiant heating requirements for unenclosed public spaces;

Clear depiction of mechanical provisions regarding when and where a Demand Control Ventilation strategy is required.



Code Council PMG Group Joins New Water Efficiency Coalition

The International Code Council has joined with a consortium of the best plumbing minds in the U.S. to collaboratively develop solutions for continued worldwide improvement of water efficiency and conservation efforts across the plumbing industry. To advance these goals, a historic Memorandum of Understanding was signed to form the Water Efficiency Research Coalition. The MOU was signed in the offices of U.S. EPA Administrator Stephen Johnson who pledged to partner with four plumbing organizations to coordinate water efficiency research.

Representatives from the International Code Council and four other organizations jointly will develop and implement research programs to further improve water efficiency and sustainable plumbing products, applications and processes. In addition to the Code Council’s Plumbing, Mechanical and Fuel Gas (PMG) group, the coalition brings together the Alliance for Water Efficiency (AWE), the International Association of Plumbing and Mechanical Officials (IAPMO), the Plumbing-Heating-Cooling Contractors



National Association (PHCC) and the Plumbing Manufacturers Institute (PMI).

Coalition members will share technical, scientific, legislative and regulatory information to develop comprehensive research projects. The common goal of all programs will be to improve water efficiency, while always being mindful of public health and safety. Actionable outcomes from these programs will be shared with the entire plumbing industry to ensure water saving measures are properly implemented.

“This coalition ties in seamlessly with global water initiatives the Code Council has been engaged in with several noted international sanitation organizations during the past several years.” said the Code Council’s PMG Group Executive Director Jay Peters. “The timing couldn’t be better given the incoming U.S. President’s Administration’s initiative to upgrade our nation’s transportation infrastructure which naturally includes water mains, water treatment and sewer lines as well as roads.”

The Code Council is leading the way with many sustainable solutions across the entire building industry. In addition to the *2009 International Energy Conservation Codes*, which will be available soon, the Council and its members are working to improve water efficiency practices across the building industry. Examples include staying on the leading edge of plumbing manufacturing technologies; specifying water-saving fixtures such as waterless urinals and proper pipe water and drainage sizing wherever possible; and ensuring multiple sustainable plumbing codes are integrated into the *2009 International Plumbing Code*.

The collective expertise shared by the founding members of this coalition ensures a highly successful effort to benefit the entire plumbing industry, as well as the public and the planet.

For more information about the Water Efficiency Research Coalition, contact the ICC [PMG Resource Center](#) at 1-888-ICC-SAFE (422-7233), x 4PMG.



Newly-Named 'Plumbing Efficiency Research Coalition' (PERC) Identifies Drainline Transport as First Joint Project

The newly-named Plumbing Efficiency Research Coalition, (PERC) formed last month through a Memorandum of Understanding (MOU), has identified Drain-line Transport as its first research project. The Coalition is comprised of five industry organizations seeking to conduct much-needed research in a number of areas. Representing the Coalition on the initial conference call to establish the first project were: Mary Ann Dickinson, Alliance for Water Efficiency (AWE); Pete De Marco, International Association of Plumbing & Mechanical Officials (IAPMO); Jay Peters, International Code Council (ICC); Ike Casey, Plumbing-Heating-Cooling Contractors Association (PHCC); and Barbara Higgins, Plumbing Manufacturers Institute (PMI). IAPMO's Pete DeMarco will serve as project coordinator for this inaugural research study and will also chair the Technical Committee assigned to the project. Each of the five member associations of PERC has named a representative to this committee. The first order of business is to define the parameters of the project.

With the enactment of the Energy Policy Act of 1992, all water closets (toilets) manufactured in or imported into the United States were required to flush no more than a maximum average of 1.6 US gallons, effective January 1, 1994 for residential models and January 1, 1997 for all models. At that time, concern for drain-line transport efficacy was voiced by many in the plumbing trade and those in various professional associations. However, early reporting and research on 1.6 gallon per flush (gpf) water closet models focused primarily on the flush efficacy of the various water closet models on the market in response to significant consumer complaints about poor flush performance. Intermittent and anecdotal complaints of drain-line transport problems were not thoroughly researched and largely attributed to older or fault sanitary drain lines. Since then, water closet manufacturers have made great strides in improving flushing performance.

Recently, the need to find additional efficiencies on water consuming plumbing fixtures has resulted in the creation of voluntary specifications that eliminate another 20% from the flush discharge volume of water closets, bringing consumption down to a maximum average of 1.28 gpf. These toilets are known as High Efficiency Toilets (HETs). Some water closet manufacturers are now voluntarily offering models that flush at 1.0 gpf. This activity has rightfully raised the debate of drain-line carry efficiency anew. Many plumbing experts are concerned that we are at or



approaching a "tipping point" where a significant number of sanitary waste systems will be affected by drain-line transport problems, especially in larger commercial systems that have long horizontal runs to the sewer. Recently, drain-line transport problems in Europe and Australia have been reported, further increasing concerns.

Looking forward, newer technologies, such as non-water consuming and High Efficiency urinals (HEUs), lower flow rate faucets and increasingly efficient water consuming appliances will further reduce the amount of water discharged into sanitary waste systems. Grey water reuse systems, a system that collects discharged water from lavatory basins, clothes washers, bathtubs and shower fixtures for reuse, usually for irrigation purposes, is another emerging technology that significantly reduces waste water in residential sanitary drainage systems. Yet, to date, an extensive research project of sufficient scope to be able to determine if significant problems could arise regarding drain line transport has yet to be conducted.

The Plumbing Efficiency Research Coalition was founded to develop research projects that will support the development of water efficiency and sustainable plumbing products, systems and practices. Projects will be financed through government grants, foundations and private financing. ◻

Stimulus Bill requires states to update energy codes

Legislation passed by the U.S. House of Representatives includes \$3.4 billion in energy assistance grants for states if the International Code Council's 2009 *International Energy Conservation Code* (IECC) is adopted and administered. The American Recovery and Reinvestment Act (HR 1) passed the U.S. House of Representatives today (Jan. 28, 2009).

The House bill requires governors who want a share of state energy assistance grants to certify their state will adopt an energy code for one- and two-family homes, townhouses and low-rise, multiple-family buildings that meets or exceeds provisions in the 2009 IECC for residential construction, and the ANSI/ASHRAE/IESNA Standard 90.1-2007, as referenced in the 2009 IECC for commercial buildings. This legislation also says governors must certify they will put in place a plan to achieve compliance with their certified energy codes within eight years in at least 90% of new and renovated residential and commercial building space.

Code Council CEO Rick Weiland said "this legislation is right in line with President Obama's push to make public buildings more efficient, reduce our dependency on foreign oil, and bring down overall costs to consumers and building owners. With buildings responsible for 40 percent of annual energy consumption and 25 percent of landfill deposits,

energy efficiency is inseparable from environmental security and health safety."

The Code Council has made it easy for states to comply with the legislation by incorporating ASHRAE 90.1 in the 2009 IECC. The ASHRAE 90.1 reference maintains language contained in the 2006 IECC currently being enforced by state and local jurisdictions.

States adopting the 2009 IECC will also be in compliance with the federal Energy Policy Act. A recent U.S. Department of Energy (DOE) ruling regarding the ANSI/ASHRAE/IESNA 90.1 Standard paves the way for the 2009 IECC to act as a "safe harbor" equivalent, given that the IECC incorporates the 90.1 standard by reference. The federal Energy Policy Act requires all states to certify that their commercial building energy code meets the requirements in Standard 90.1-2004 or in equivalent language such as the 2009 IECC.

The bill passed today requires the plan include training and enforcement programs, and measure the rate of compliance annually. Language in the House-passed legislation was included at the request of President Barack Obama's transition team, and approved by the House Energy and Commerce Committee. It is supported by a broad coalition of organizations concerned with energy efficiency, including the Edison Electric Institute, the Energy Futures Coalition, the Natural Resources Defense Council, and the Alliance to Save Energy.

"The Council will continue to monitor the progress of the legislation as it moves to the Senate for further consideration," Weiland said. "We encourage our members to be ready to work with the Department of Energy and state energy offices to implement this legislation."

Adopted at the state and local level in 39 states and Washington, D.C., the IECC residential and commercial procedures have a strong following and a well-developed format that is simple to use and familiar to code officials.



Code Council Joins National Effort to Reduce Fire Deaths

The International Code Council stood with fellow fire safety advocates near the U.S. Capitol to bring attention to several recent fire fatalities and encourage usage of early detection and early suppression tools.

Code Council Senior Vice President Sara Yerkes represented the Code Council. Other participating organizations included the U.S. Fire Administration (USFA), the International Association of Fire Chiefs, the National Association of Fire Marshals, the National Volunteer Fire Council, the Home Safety Council, the Congressional Fire Services Institute, the National Fallen Firefighters Foundation, the National Fire Protection Association, and the American Fire Sprinkler Association. Families of fire death victims and Washington, D.C., area fire departments were introduced as well.

Several of the participants endorsed the Code Council's activities as essential to fire safety, and promoted the adoption of the latest building and fire safety codes. The Code Council will soon release its 2009 International Codes and urges jurisdictions to adopt and administer building and fire safety codes to provide maximum public safety. In the event of a fire, properly installed and maintained fire detection and suppression systems can save lives.

United States Fire Administrator Greg Cade declared the national effort as a result of one of the deadliest holiday seasons in recent memory and several significant fires in the first days of 2009. There have been more than 158 fatal fires in the United States resulting in more than 200 fire fatalities since Thanksgiving 2008, according to Cade.

"The 2008 holiday season and the start of 2009 may be recorded as one of the deadliest for residential fires in recent memory of the fire service," said Cade during a news conference held at a Washington, D.C., fire station.

National Green Building Standard Approved

The National Green Building Standard, known as ICC-700, was approved yesterday (Jan. 29, 2009) as an American National Standard. The new Standard provides guidance for safe and sustainable building practices for residential construction, including both new and renovated single-family to high-rise residential buildings. This is the first and only green standard that is consistent and coordinated with the Code Council's family of I-Codes and standards.

Code Council Board President Adolf Zubia said, "this is an enormous step forward in bringing focus to green practices for the built environment. ICC-700 provides a benchmark for green

building in the residential market, serving as a new and needed starting point for comprehensive approaches to green residential construction. This is the result of many months of hard work by our members and our partners around the country."

Code Council CEO Richard P. Weiland said, "the development of high performance 'greener' housing can have a tangible and positive impact on our environment and communities. This new tool for state and local governments fills an important gap to provide a measurable framework for efforts to produce green and sustainable housing. In concert with energy codes such as the *International Energy Conservation Code*, and rating systems such as the LEED Green Building Rating System, Energy Star, the CHPS Criteria, Green Globes or similar programs, application of ICC-700 can contribute to greater energy, water and resource efficiency along with reduced long-term costs to consumers and to our planet."

The International Code Council and National Association of Home Builders developed the Standard with broad input from several thousand stakeholders, ranging from code officials and other building professionals to the entire spectrum of the green building community. This new standard provides a practical route to green, sustainable and high-performance construction, especially in communities with little if any green/sustainable buildings or guidelines to build green. The standard also promotes homeowner education for the maintenance and operation of green residential buildings in order to ensure long-term benefits.

The standard's rating system allows builders, designers and communities to choose the levels of high-performance green buildings that best suit their needs. Key provisions include:

- Land conservation
- Rainwater collection
- Construction of smaller homes to conserve resources
- Energy performance starting at 15% above the baseline requirements of the 2006 *International Energy Conservation Code*
- The use of low VOC (Volatile Organic Compound) materials and detached garages or carports to improve indoor environmental quality
- Homeowner education on proper maintenance and operation to maintain its green status throughout its life cycle

ICC-700 is available along with related ICC publications through the Code Council [website](#).

Training on ICC-700 already is available, including a special session March 23-26 at Codes Forum in New Orleans. Additional training is also available on related topics such as current green building practices and their relationship to the International Codes, overview of the LEED green building rating systems, and developing green building ordinances to



ICC NEWS

News from the International Code Council

help governmental departments and agencies tasked with establishing sustainable building programs.

The Code Council is finalizing its Green Building Technologies Certification program for building officials, inspectors, planners, zoning personnel, mayors, city council members, developers and other interested parties. The exams will be available in March. These certifications will demonstrate the ability to understand the application of green building technology and assess adherence with green building programs.

In addition, the International Code Council Board has approved the creation of a Sustainable Building Technology Committee to support the Council's many ongoing efforts in green, sustainable and safe construction.

A Code Council subsidiary, ICC-Evaluation Service, has developed the Sustainable Attributes Verification and Evaluation (SAVE) program to provide independent confirmation that evaluated building products are sustainable and may qualify for points under ICC-700 as well as major green rating systems such as LEED or Green Globes. A SAVE evaluation involves both inspection of the manufacturer's production process and reviews of independent product testing, where required. Manufacturers that successfully complete the evaluation process receive a *Verification of Attributes Report* in one or more of nine key categories. Design professionals will be able to use the reports as evidence that products or systems they select qualify for points under those programs.

Another Code Council subsidiary, the International Accreditation Service (IAS), offers accreditation to testing laboratories, inspection agencies and product certifiers in several fields related to energy and sustainability to support manufacturers and regulators involved in green building development and approval. IAS also accredits curriculum developers and training agencies focused on green initiatives.





2009 Uniform Codes Slated for Release on March 1 Ontario, Calif.

From: *IAPMO Press Release*

The 2009 editions of the *Uniform Plumbing Code (UPC)* and *Uniform Mechanical Code (UMC)*, published by the International Association of Plumbing and Mechanical Officials (IAPMO), have been tentatively scheduled for release on March 1, completing a three-year consensus development cycle accredited by the American National Standards Institute.

Significant changes to the *UPC* include:

- New requirements for the installation of nonwater urinals
- Specific prescriptive requirements for the installation of temperature limiting devices for various fixtures
- New requirements for the distribution of hot water for bathing, washing, laundry, cooking, dishwashing, etc.
- Updates and revises the identification of potable and nonpotable water systems
- New requirements for sizing Hydromechanical grease interceptors and gravity grease interceptors
- Complete modification and new requirements for gray water and reclaimed water systems
- Three new tables for ease of use, including approved materials, devices and their respective referenced standards for water supply and distribution piping and drain, waste and vent piping and backflow prevention devices, assemblies and methods

Significant changes to the *UMC* include:

- New requirements for outdoor air ventilation updated in accordance with ASHRAE 62.1-2007
- New requirements for the protection of mechanical equipment against flood damage
- 69 new refrigerants added to Table 11-1, Refrigerants Groups, Properties and Allowable Quantities
- For hydronics systems, three approved referenced standards for piping materials and installation
- New joining method for fuel gas tubing utilizing press-connect fittings in accordance with C SA LC-4
- New prescriptive and performance-based requirements for listed and unlisted open flame decorative appliances

The Uniform Codes are developed using the American

National Standard Institute's consensus development procedures. This process brings together volunteers representing a variety of viewpoints and interests to achieve consensus on plumbing and mechanical practices.

The codes are designed to provide consumers with safe and sanitary plumbing and mechanical systems while, at the same time, allowing latitude for innovation and new technologies. The public at large is encouraged and invited to participate in IAPMO's open consensus code development process. A code development timeline and other relevant information are available at IAPMO's Website, www.iapmo.org.

IAPMO Joins Plumbing Trade Colleagues in Formation of Water Efficiency Research Coalition

From: *IAPMO Press Release 1/6/09*

In a formal ceremony Tuesday at the headquarters of the United States Environmental Protection Agency, representatives from the International Association of Plumbing and Mechanical Officials (IAPMO) and four other plumbing trade associations signed a Memorandum of Understanding (MoU) to form a Water Efficiency Research Coalition.

The coalition, conceived by The IAPMO Group, seeks "to provide a mechanism for voluntary cooperation on plumbing-related research projects that pertain to water efficiency," according to the MoU. It initiates a spirit of cooperation between charter and future coalition members "to find common ground to share technical, scientific, legislative and regulatory information that will result in an organized and systematic approach towards the development of comprehensive research programs." The goal of such research would be the advancement of water efficient and sustainable plumbing products, systems and practices. Joining IAPMO in the coalition are: the Alliance for Water Efficiency (AWE); the International Code Council (ICC); the Plumbing-Heating-Cooling Contractors – National Association (PHCC); and the Plumbing Manufacturers Institute (PMI).

"We, like the other organizations represented here today, recognize that plumbing systems are complex," said Pete DeMarco, IAPMO director of Special Programs. "To keep these systems working properly, decisions on further reductions in the amounts of water that we currently use today must be based on good science if we are to avoid problems that could tarnish and jeopardize the entire water efficiency movement."

DeMarco explained that there comes a point when plumbing systems will fail due to lack of water in the system and that the research conducted by the coalition "will be structured to



ensure that we do not unintentionally create performance problems as we seek to improve efficiency.”

EPA Administrator Stephen L. Johnson orchestrated the signing at the agency’s Pennsylvania Avenue offices, calling it an “historic day for water efficiency.” Johnson delivered the keynote address at last summer’s International Emerging Technologies Symposium, co-convened by IAPMO and the World Plumbing Council in Chicago. Also in attendance for the signing was EPA Assistant Administrator for Water Ben Grumbles. The EPA launched its own WaterSense program, promoting water efficiency and enhancing the market for water-efficient products, programs and practices, in 2006. The non-binding MoU will be reviewed at least once a year in order to determine if it should be continued, modified or terminated. It was signed by: G.P. Russ Chaney, executive director of IAPMO; Mary Ann Dickinson, executive director of AWE; Jay Peters, executive director Plumbing, Mechanical and Fuel Gas for ICC; D.L. “Ike” Casey, executive vice president of PHCC; and Barbara C. Higgins, executive director of PMI.

“By pooling our resources, we believe we can generate a much better, more beneficial research program,” Chaney said. “Aligning industry efforts for the first time gets everybody pulling in the same direction, and that direction is the path to the most efficient, yet safe and healthy plumbing systems possible.”

IAPMO Green Newsletter: **Legislation Ahead of Safety & Performance**

The stress placed on water reserves has spurred many local governments to adopt legislation aimed at water efficiency and conservation. One of the easiest ways to achieve water conservation comes from limiting flow rates on plumbing products such as toilets, showerheads and faucets. However, amendments such as those recently adopted in Dade County, Fla., have some in the plumbing industry concerned. The new regulations, effective July 1, 2008, limit the flow rate on showerheads to not exceed 1.5 gallons per minute (gpm).

While the plumbing industry is committed to water efficiency, pursuing this goal must be realized while maintaining public comfort, health and safety. Reducing showerhead flow rates can potentially increase the risk of scalding and thermal shock. Setting standards in front of proper testing and evaluation does not ensure public safety. In his "Working Together to Get Green Legislation Right." Plumbing Manufacturers Institute (PMI) President Rodman Ward said, "PMI does not support local municipalities or water districts that independently enforce reduction of flow rates solely to meet water reduction goals often without consideration of product performance issues or consumer

satisfaction concerns."

There is not a performance based testing method for showerhead performance. The EPA WaterSense® program has issued a notification of intent to develop specifications for high-efficiency showerheads, but has not yet completed the process. The EPA is currently working with IAPMO, the California Energy Commission, PMI and other members of a joint task force of the American Society of Mechanical Engineers (ASME) A112 Plumbing Committee and the Canadian Standards Association (CSA) to conduct product testing and establish a showerhead performance standard that addresses water and energy savings, ensures consumer satisfaction and maintains health and safety. The EPA has targeted the end of 2008 for completion of the showerhead specification.





ASSE Manufacturers Advisory

Meeting Highlights

Reported by Ron George

The Manufacturers advisory committee meeting was held during the annual meeting in Orlando, Florida. Bill Chapin of Cash Acme was Elected Chairman of the Manufacturers advisory committee.

In attendance were: John Bertrand, Moen; Paul Bladdick, LPB Co, Inc.; Bill Chapin, Cash Acme/Reliance Worldwide; Sean Cleary, IAPMO; Ron George, Ron George Design & Consulting Services; Kim Haffey, ASSE; Bill Hall, Leonard Valve Co.; Steve Hazzard, ASSE; John Higdon, Apollo Valves/Conbraco Industries; Ken Kerr, Kerr Marketing; Tim Kilbane, Symmons Industries; Ed Lyczko, Cleveland Clinic; Ron Murray, UA Local 290; Brad Noll, Wilkins, a Zurn Company; Barry Pines CPD, C & R Plumbing; Rich Prospal, ASSE; Sally Remedios, Delta Faucet; John Watson, Sloan Valve

Action Item 1 – ASSE will make a recommendation to proceed with getting the ASSE Seal Logo accepted in Canada through the Standards Council of Canada to the Board. Evaluate the costs against the benefits. Manufacturers will use ASSE to get certification to CSA Standards if the Seal Logo is accepted in Canada. Manufacturers feel that this is vital for ASSE's certification.

Ron Murray said the Board will set a date and time period where they will proceed with this and will also include these costs in the budget.

Action Item 2 – There was discussion by a few manufacturers about the difficulty of the electronic form for the Factory Audit Reports. ASSE will be amended and change the form to be more user friendly.

There was discussion about harmonization of ASSE standards with CSA and ASME standards. The Pros and Cons were discussed.

Legislative Issues Affecting the Plumbing Industry

Bill Chapin reported on the Lead issue. "As most of you are aware we have some Lead issues coming up in California and Vermont. For some reason I can't get anyone interested in the Vermont issue. I was fortunate to participate in California and some others here in some communication on the issue with no lead. We all went to the meeting with some hope that someone tells us what the rules will be in 2010. Right now we have legislation that says the wetted surface area must be less than 0.25% lead. In there, there are some words that describe a formula on how to calculate that. There are some words that you have to be certified by a third party to the law and the DNC was going to give a protocol. And when we went there we were hoping to have the protocol but we didn't have that. No one will own up to be the

enforcement in accepting criteria from NSF or IAPMO for certification. Right now we are very confused in what's going on. There was some good reports from Ford Meter Box and the California Metals Coalition on some reports where they are showing some positive results. For those of us who have a lot of forged stuff we are still searching."

Sally Remedios said a good website is the California Metals Coalition. There you can find our questions - a lot of questions but not a lot of answers. Bill Chapin added NSF will have a meeting in December". The discussion on the Lead in plumbing systems issue continued and it was apparent the manufacturers, the regulators and the public were all confused.

Action Item 3 - ASSE to contact PMI to work together on legislative issues.

John Watson asked if everyone aware of the HET (high efficiency toilet)? This will kind of affect the products listed to 1002 and 1037. There is legislation proposed to mandate HET by 2014 but this could be moved up to 2010. Texas tried to pass similar legislation but through the efforts of the Plumbing Manufacturer's Institute (PMI) they are trying to take that bill and components and make it available in a federal level so if other states want to adopt it they adopt the same criteria.

Megan Bryant was introduced as the editor of "**Plumbing Standards Magazine**" the ASSE publication. She asked the manufacturers in attendance for some new ideas to freshen up the magazine. She wanted to see if anyone had any suggestions for articles, for advertisements, etc.. She noted ASSE has recently lowered the advertising prices for the magazine. The black and white and color are the same. There was a suggestion to highlight a manufacturer in the magazine. Megan said "If you advertise for us we can give you a full page to talk about your company."

Rich Proposal stated ASSE is always asking sustaining members for money. We need to come up with an idea to pay them back. Something like a Product Showcase which would allow them to write an article about the company - a history article. Who are we? Who is the rep and background info? As a follow up they have to buy an ad. I also want to put a "Meet the Staff" in there. Those that don't come around, then they can meet the staff. We are going to have a PowerPoint presentation from a public relations firm to help us look at the magazine and re-do it; to critique it during the Board meeting. They have come up with a lot of good suggestions. Look for changes in the "**Plumbing Standards Magazine**." If anyone would like to submit an article please send it to Megan Bryant at ASSE, e-mail: info@asse-plumbing.org.



American Society of Sanitary Engineering (ASSE) Update

The American Society of Sanitary Engineering recently held their annual meeting in Orlando Florida. The following is a brief summary of what was reported at the meeting.

The ASSE Standards Program The Product Standards Committee and the various working groups have been busy reviewing and revising the following ASSE Standards:

ASSE 1003 - Performance Requirements for Water Pressure Reducing Valves,

ASSE 1012 - Performance Requirements for Backflow Preventers with Intermediate Atmospheric Vent

ASSE 1013 - Performance Requirements for Reduced Pressure Principle Backflow Preventers and Reduced

Pressure Fire Protection Principle Backflow Preventers

ASSE 1015 - Performance Requirements for Double Check Backflow Prevention Assemblies and Double Check Fire

Protection Backflow Prevention Assemblies

ASSE 1016 - Performance Requirements for Automatic Compensating Valves for Individual Showers and

Tub/Shower Combinations

ASSE 1018 - Performance Requirements for Trap Seal Primer Valves - Potable Water Supplied

ASSE 1019 - Performance Requirements for Vacuum Breaker Wall Hydrants, Freeze Resistant, Automatic

Draining Type

ASSE 1021 - Performance Requirements for Drain Air Gaps for Domestic Dishwasher Applications

ASSE 1027 - Performance Requirements for Fill Tank Backflow Protection Systems for Gravity Water Closet Flush

Tanks

ASSE 1030 - Performance Requirements for Positive Air Pressure Attenuators for Sanitary Drainage Systems

ASSE 1037 - Performance Requirements for Pressurized Flushing Devices (Flushometers) for Plumbing Fixtures

ASSE 1044 - Performance Requirements for Trap Seal Primer Devices - Drainage Types and Electronic Design

Types

ASSE 1047 - Performance Requirements for Reduced Pressure Detector Fire Protection Backflow Prevention

Assemblies

ASSE 1048 - Performance Requirements for Double Check Detector Fire Protection Backflow Prevention Assemblies

ASSE 1050 - Performance Requirements for Stack Air Admittance Valves for Sanitary Drainage Systems

ASSE 1051 - Performance Requirements for Individual and Branch Type Air Admittance Valves for Sanitary Drainage

Systems

ASSE 1055 - Performance Requirements for Chemical Dispensing Systems

ASSE 1056 - Performance Requirements for Spill Resistant Vacuum Breaker

ASSE 1066 - Performance Requirements for Individual

Pressure Balancing In-Line Valves for Individual Fixture Fittings

They reported that two new ASSE product standards are in the development stages they are:

ASSE Draft 1026 - Performance Requirements for Dual Check Backflow Preventer Components Installed in Medical / Dental Water Treatment Systems and the Product Standard Committee (PSC) decided not to move forward with this because it was a low hazard device proposed in a high hazard application.

ASSE Draft 1049 - Performance Requirements for Individual and Branch Type Air Admittance Valves for Chemical Waste Systems.

Four ASSE product standards were revised and re-issued this year. They were:

ASSE 1001, ASSE 1002, and ASSE 1055, and one new standard, ASSE 1071.

Last year, five ASSE standards started the revision process outside of the normal 5-year cycle.

They were:

ASSE 1013, ASSE 1015, ASSE 1016, ASSE 1047 and ASSE 1048.

The request to revise these standards came from the industry for the purpose of harmonizing technical requirements with the Canadian Standards Association (CSA) standards and the American Society of Mechanical Engineers (ASME) standards. All five of the ASSE draft standards are nearing the end of the revision process and should be issued in the first half of 2009.

The reduced pressure/dual check group of standards include the following standards: (*ASSE 1013, ASSE 1015, ASSE 1047 and ASSE 1048*) These standards have been revised to include all performance tests and criteria from across North America in one set of standards. In addition, when the various performance tests were reviewed, the most stringent pass/fail requirements were included in the standards. The fifth standard in revision outside of its normal cycle is ASSE 1016. In October of 2008 the ASSE 1016 working group & ASME/ CSA Task Group meeting was held in as ASSE offices and a draft was finalized for the purpose of letter ballots went out to the working group and also to present to the ASME/CSA Joint Harmonized Committee for their review and consideration for adoption into the ASME A112.18.1/CSA B125.1. ASSE 1016 will be the first truly harmonized standard between ASSE and CSA. It will be a milestone accomplishment for both organizations.

The ASSE Series 7000, Professional Qualifications Standards for Plumbing-Based Fire Protection Systems Installers and Inspectors, has been approved by the ASSE Board of Directors, and has been submitted to the American National Standards institute (ANSI) to receive the designation as an American National Standard. During the Final Action hearings in Minneapolis, MN this fall, the IRC adopted mandatory plumbing-based residential fire suppression systems for all new homes using the 2009



ASSE NEWS

News from the American Society of Sanitary Engineering

edition of the IRC. ASSE should be ready to release their certification program to the Series 7000 standard in early 2009 so installers can get certified as installers of residential fire protection systems.

The Series 5000 Working Group has drafted two new standards to be included in the Series 5000

– one is a standard for cross connection control program administrators, and one is a standard for testers for backflow prevention assemblies on fire protection systems.

The Series 6000 should have started its revision process this year; however, it has been postponed until 2009 when the new edition of the NFPA 99 is scheduled to be completed.

A History of ASSE Standards 1016, 1069 and 1070

When the ASSE 1016-1996 standard was updated from the 1988 writing, its title was changed from “Individual Thermostatic, Pressure Balancing and Combination Control Valves for Bathing Facilities” to “Individual Thermostatic, Pressure Balancing and Combination Pressure Balancing and Thermostatic Control Valves for Individual Fixtures”. The scope remained the same. A new section was added, Section 1.1 Application which replaced the former Section 1.2 Purpose. In doing so specific reference to “...control valves for bathing facilities...” was replaced with “...control valves for individual fixtures...”

Throughout the most recent three revisions of the standard, 1988, 1996 and 2005, the term “user”, “Bather or Bather’s Attendant” has remained a constant in the purpose or application sections of these standards. As seals were granted for products listed to the ASSE 1016-1996 standard, the question raised was: “How can an in-line device installed where the user can not adjust temperature and allows further mixing of hot and cold water downstream of the device provide the bather in a shower tub/shower application the level of protection intended in the ASSE 1016-1996 standard?”

Depending on the application, a product listed to ASSE 1016-1996 could be used in applications requiring the mixing of hot and cold water. However, it was never the intent to negate the thermal shock protection that the standard had provided the user/bather. From this, ASSE surmised that one standard’s scope to encompass all of these applications and still provide adequate health and safety requirements to protect the consumer was not being upheld; therefore one “catch all” standard was not sufficient. In part, the following criteria was utilized to develop ASSE 1016-2005, ASSE 1069-2005, ASSE 1070- 2004:

1. Does the application require scald protection only?
(Further mixing of hot or cold water downstream of the device is allowed)

2. Does the application require thermal shock protection
(Further mixing of hot or cold water downstream of the device *is not* allowed)

3. What is the degree of hazard in the application (lavatory, shower, etc)? Therefore, the publication of ASSE 1016-2005, ASSE 1069-2005, and ASSE 1070-2004 were developed for a wider range of clearly defined applications. The three standards were approved by the ASSE Board of Directors on the following dates:

ASSE 1016-2005 - *Performance Requirements for Automatic Compensating Valves for Individual Showers and Tub/Shower Combinations* **January 2005**

ASSE 1069-2005 - *Performance Requirements for Automatic Temperature Control Mixing Valves* **January 2005**

ASSE 1070-2004 - *Performance Requirements for Water Temperature Limiting Devices* **February 2004**





New Cast Iron Soil Pipe Certification Requirements Added To ASTM Standards

Recently, the ASTM A04 Main Committee passed proposed revisions to ASTM A888 and ASTM A74 – the ASTM standards for the manufacture of no-hub and hub and spigot cast iron soil pipe and fittings, respectively. The changes involved the addition of new language requiring third party certifiers to meet certain criteria for inspection and certification of these products.

The new requirements add specific tasks a third party certifier must perform during their inspections if the manufacturer or seller chooses to use a third party as part of their certification requirements. These include inspection of at least 10 different sizes of pipe; measuring every dimension of at least 10 different fittings; review of test reports that substantiate that physical, chemical, and radiation tests are being performed; and a new requirement that sellers or manufacturers who rely on the third party certification provide this information to the design professional and inspector when requested.

These important changes come on the heels of other significant changes by the committee to existing standards to more explicitly ensure the quality of industry products, including:

*Pipe and fittings shall not be patched, filled or welded by the manufacturer to repair cosmetic or material defects that occur during the course of manufacturing.

*Pipe and fittings shall not be coated with paint containing lead that exceeds levels above 0.06% (600 ppm).

“In this age of globalization, it is increasingly important that manufacturing standards meet industry best practices and are uniformly enforced by the code community,” said Bill LeVan, executive vice president of the Cast Iron Soil Pipe Institute and vice chairman of the ASTM A04 Main Committee. “Changes such as these are necessary to assure cast iron customers that regardless of who made the material, the pipe and fittings they purchase meet the threshold of quality they have every right to expect.” □

Committee News

Technical Committee A04 Iron Castings

Staff Manager: [Kathleen Mcclung](#) 610-832-9717

ASTM Committee A04 on Iron Castings was formed in 1964. A04 meets in May and November with approximately 20 members attending one day of technical meetings. The Committee has 140 members and currently has jurisdiction of 49 standards that are published in Volume 1.02 of the Annual Book of ASTM Standards. A04 has 6 technical subcommittees that maintain jurisdiction over these standards.

Technical Committee F17 on Plastic Piping Systems

Staff Manager: [Robert Morgan](#) 610-832-9732

ASTM Committee F17 on Plastic Piping Systems was formed in 1973. F17 currently has 670 members participating on 18 technical subcommittees that are responsible for 200 approved standards. F17 meets in April and November with approximately 160 members participating in 40 meetings over three days. F17 standards are published in Volume 08.04 of the Annual Book of ASTM Standards. F17 has 18 technical subcommittees that maintain jurisdiction over these standards. Information on this subcommittee structure and F17's portfolio of approved standards and Work Items under construction are available from the List of Subcommittees, Standards and Work Items below. These standards are referenced in many plumbing and building codes and ensure quality and performance for the plastic pipe industry.

ASTM Committees will meet next on: Monday April 20 2009 - Thursday April 23 2009, Fairmont Hotel Vancouver; Vancouver, B.C., CA

ASTM Standard for Use of X-Ray for Lead Testing

Proposed ASTM Standard Provides for Use of X-Ray Spectrometry in Testing for Lead Content

The presence of lead in toys and other consumer products continues to make headlines. The Consumer Product Safety Improvement Act, a United States law enacted in August 2008, addresses the lead issue and makes provisions for the use of X-ray spectrometry in testing for lead content.

To aid the toy and consumer products industries in using X-ray spectrometry for lead detection and meet the requirements of CPSIA, ASTM International Committee [F40](#) on Declarable Substances is currently developing a proposed new standard, [WK21957](#), Test Method for Identification and Quantification of Lead in Paint and Other Coatings Using Energy Dispersive X-ray Spectrometry (EDXRF).

According to Stanislaw Piorek, principal research scientist,



Thermo NITON Analyzers LLC, and a member of Committee F40, using X-ray spectrometry allows for nondestructive testing for lead both in a product and within the paint that covers it. While an ASTM standard that covers XRF testing in paint for lead does exist ([E2120](#), Practice for the Performance Evaluation of the Portable X-Ray Fluorescence Spectrometer for the Measurement of Lead in Paint Films), the proposed new standard will also be appropriate for use with toys and other consumer products.

[WK21957](#) is under the jurisdiction of Subcommittee [F40.01](#) on Test Methods. All interested parties are invited to participate in the standards developing activities of the subcommittee and of Committee F40.

For technical information, contact Stanislaw Piorek, Thermo Fisher Scientific Inc., Billerica, Mass. (phone: 800-875-1578; stan.piorek@thermofisher.com). Committee [F40](#) meets April 22-24 in Vancouver, British Columbia, Canada.

ASTM International welcomes and encourages participation in the development of its standards. ASTM's open consensus process, using advanced Internet-based standards development tools, ensures worldwide access for all interested individuals. For more information on becoming an ASTM member, please contact Brynn Murphy, ASTM International (phone: 610-832-9640; bmurphy@astm.org).

ASTM F17 Plastic Pipe Committee

The ASTM F17 committee develops standard specifications for plastic pipe, fittings, and appurtenances; practices for joining and installing plastic pipes; test methods; terminology, systems and services specific to plastic piping systems and the stimulation of related research.

The work of the Committee may include the consideration of composite piping systems, and components which are partially plastic.

The work of the Committee will be coordinated with other ASTM Committees and other organizations having mutual interests.

ASTM A04 cast iron committee standards:

ASTM A74 - 09 Standard Specification for Cast Iron Soil Pipe and Fittings

This standard covers cast gray iron soil pipe and fittings for use in gravity flow plumbing, drain, waste and vent sanitary, and storm water applications. These pipe and fittings are not intended for pressure applications.

ASTM A377 - 03(2008)e1 Standard Index of Specifications for Ductile-Iron Pressure Pipe

This Standard covers ductile-iron pressure pipe suitable for carrying water and other liquids under pressure. It is commonly used in water mains.

ASTM A674 - 05 Standard Practice for Polyethylene Encasement for Ductile Iron Pipe for Water or Other Liquids

This standard covers the standard materials and installation procedures for polyethylene encasement to be applied to underground installations of ductile iron pipe for water or other liquids. It may also be used for polyethylene encasement of fittings, valves, and other appurtenances to ductile iron pipe systems.

ASTM A716 - 08 Standard Specification for Ductile Iron Culvert Pipe

This standard covers ductile-iron culvert pipe centrifugally cast. The standard call for the pipe shall be manufactured of ductile iron that meets the mechanical requirements such as tensile strength, yield strength, elongation, and impact value. The pipe shall be provided with suitable joints, such as push-on or other types of joints that prevent lateral displacement, but plain-end pipe for use with suitable couplings may be furnished. Standard wall thickness and weight values of push-on joint pipe are given. Pressure Class ductile iron pipe in Type 5 trench is illustrated. The standard also requires all pipe to be coated inside and outside with an asphaltic material. Acceptance tests by tension and impact testing are required. The standard test specimens for these testing methods are detailed in the standard.

ASTM A746 - 03 Standard Specification for Ductile Iron Gravity Sewer Pipe

This standard covers ductile iron gravity sewer pipe centrifugally cast with push-on joints. This also covers trench load design procedures for both cement-lined pipe and flexible-lined pipe. Maximum depths of cover tables are included for both types of linings. Each pipe is required to be tested to a hydrostatic test and the test may be performed either before or after the outside coating and inside coating have been applied, but shall be performed before the application of cement-mortar lining or of a special lining. The standard acceptance tests and additional control tests are also specified in the standard.

ASTM A888 - 09 Standard Specification for Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications

This standard covers hubless cast iron soil pipe and fittings for use in gravity flow applications. These pipe and fittings are intended for non-pressure applications. The selection of the proper size for sanitary drain, waste, vent, and storm drain systems allows free air space for gravity drainage. The standard calls for pipe and fittings shall be iron castings suitable for installation and service for sanitary, storm drain, waste, and vent piping applications. The pipe and fittings are required to meet all applicable requirements and tests given in the standard. Tensile test and chemical test are required to conform to the requirements specified. The pipe and fittings are also required to be uniformly coated with a material suitable for the purpose that is adherent, not brittle, and without a tendency to scale.

Low Flow Shower Head Update

*By: Ron George, CIPE, CPD, President,
Ron George Design and Consulting Services
www.rongeorgedesign.com*

ASME/CSA Joint Harmonization Task Force on water Efficient Shower Heads

The ASME Joint Harmonization Task Force (JHTF) on water efficient shower heads met during the ASSE Conference in Orlando, Florida. The committee is in the process of evaluating different types of water efficient shower heads for water savings, user satisfaction wetting abilities and spray force. During a lunch break, the committee was able to view some of the proposed test rigs which will be used to evaluate the various shower heads. The idea is to establish minimum criteria for evaluating various shower heads. The shower heads will not be identified by name outside of the committee, but the better performing shower valves will receive the an identifying mark as a water saving shower head.

The JHTF on Water Efficient Shower Heads is a sub-set of the JHTG on Plumbing Supply Fittings under the direction of the ASME A112 Main Committee and the CSA B125 Technical Committee. During lunch a consultant who is conducting a similar and somewhat parallel research project for the California Energy Commission's Public Interest Energy Research (PIER) program gave a presentation that showed how his group is looking at the development of new testing protocols for measuring the performance of showerheads. He invited members of the JHTG to participate in the Project Advisory Committee (PAC) for his California project. The California project will focus on the development of new testing protocols for measuring the performance of showerheads. The role of the PAC is as follows.

- Provide guidance on scope of research; research methodologies; timing; coordination with other research.
- Review deliverables.
- Provide recommendations, as needed, to enhance tangible benefits to the state of California and other entities.
- Provide recommendations regarding information dissemination, market pathways or commercialization strategies relevant to the research products.

The performance advisory group was reported to be a diverse group of researchers, consultants, product manufacturers, water utility representatives, and others with a particular interest in low flow showerhead performance. The PIER activity is separate from the work of the ASME/CSA Joint Harmonization Task Force but the two organizations generally agreed that each group would benefit from the work of the other and cooperation from members was sought.

At the ASME/CSA JHTG meeting in Orlando The consultant from California requested time to present an update on the survey being carried out under the PIER program in California and also a consumer study. Following his presentation, many JHTF members pointed out some of the deficiencies in the testing in that they were asking if any of the bathers experienced thermal shock. I asked who they were conducting the testing

with and what kind of buildings and faucets and piping was being used. He said they were using a block of hotel rooms and paying people to take showers. I pointed out that thermal shock will not occur in the hotel building that they were using in their testing if it has a properly design plumbing system behind the wall and if it is installed in accordance with the code. They are not testing the shower heads with older style shower valves that do not compensate for temperature or pressure fluctuations. I pointed out that these older style shower valve make up close to half (50%) of all existing shower valve installations and that There needs to be some testing with the low flow shower heads in showers with older twohandled

shower valves and non-compensating shower valves that were installed prior to code requirements in the late seventies and early eighties in order to asses the potential dangers.

These older systems are grandfathered-in probably close to half of all existing homes and buildings. Testing in these older types of facilities with pressure disturbances will produce thermal shock. It is also important for the testing to record what kind of shower valve and what kind of plumbing system the shower head is installed in and the percentages of the tested shower valves should be in line with the percentages of non compensating shower valves. The results of proper testing will point out the need for "warning labels" on low flow or "water efficient" shower heads stating they should not be used in systems with two handled shower valves or systems with non-compensating shower valves. There were a couple of shower head manufacturers and the Consultant from California that claimed the low flow shower heads that they have tested will not cause thermal shock or scalding. One manufacturer claimed he has sold over 30,000 low flow shower heads and not had one complaint. Once again, I pointed out the testing they conducted did not include non-compensating shower valves and the general public is not likely to know why their shower just burned them or caused a thermal shock. The shower valve manufacturer went on to proudly say his shower head has a special pressure compensator that compensates for flow and pressure. His statement could not have been more wrong. The thermal shock and scalding is a matter of basic physics. If you restrict the flow at a shower head and you have a pressure drop in the cold water system from a nearby fixture flowing cold water, like a washing machine, or a water closet flushing, the temperature will change at the shower head if it is served by a two handle shower control valve or a non-compensating shower valve. The special pressure compensator he spoke of is common in all pressure compensating shower valves it is a rubber orifice that gets smaller as the system pressure gets higher to maintain a relatively constant flow rate over a wide range of delivery pressures. A pressure compensating shower head will not balance pressures within the plumbing system it will only regulate the flow of water out of the shower head. The only way to deal with fluctuating pressures or temperatures between the hot and cold water system is by using a pressure balancing or thermostatic shower control valve. In the U.S. it would need to meet the requirements of ASSE. If the PIER survey is asking everyone if they experience thermal shock in their shower and the shower is supplied with a pressure balancing shower valve then of course the results of the survey will be skewed and that is why the low flow shower head manufacturer's and the consultant claim there are no

problems. When the California consultant and a couple of low flow shower head manufacturer's claimed thermal shock is not an issue. I couldn't believe my ears. Several people on the JHTF committee spoke up and confirmed thermal shock could be an issue with non-compensating valves and low flow shower heads. This brings me to another thing I heard recently. Apparently there are some manufacturers of low flow shower heads that have gone to cities like Miami-Dade County and convinced them to mandate low-flow shower heads for all showers in their jurisdiction. This seems like a lousy way to save a few gallons of water if you end up scalding a lot of people and causing an increase in thermal shock/slip and fall incidents in the process. I should also note there has been data from flow studies conducted by the plumbing manufacturers institute (PMI) that shows some types of ASSE 1016 shower valves will not control the water temperatures within the limits required in the ASSE 1016 standard titled: Performance Requirements for Automatic Compensating Valves for Individual Showers and Tub/Shower Combinations when they are coupled with low flow shower heads. The ASSE 1016 shower valve flow test is based on 2.5 gallons per minute. When the flow rate was reduced to 1 gpm a significant majority percentage of the manufacturers shower valves did not control the temperatures within the limits in the standard. Who is liable when someone is injured because of this program to mandate low flow shower heads without verifying the piping system is designed with pressure compensating shower valves with check valves on each supply to the faucet and a valve that has been tested to control within the temperature ranges in the ASSE Standard at the reduced flow rates. There needs to be warnings that these low flow shower heads should not be installed on systems with non-compensating type shower valves or someone is going to get burned. I applaud the efforts of the ASME/CSA Joint Harmonization Task Group on Low Flow Showers for approaching this issue with an eye toward testing to see how effective these shower valves will be. Most of the task group members seem to be aware of the safety issues and I only hope that some of the studies for shower head efficiency include some of these very low flow shower heads in systems with two handled shower valves and non-compensating shower valves. I suggest if the testing of two handled shower valves or non-compensating shower valves they should use an ASSE 1062 temperature actuated flow reduction device to prevent seriously scalding any of the test participants. I'm sure if the testing is done with non-compensating shower controls it will result in warnings about not using low flow shower heads in systems with two handle shower valve or non-compensating shower valves. The compensating type shower valves should also include check valves on the inlet to the valve to prevent cross flow.

New ASME Plumbing Product Standards being developed

ASME is in the process of developing a couple of new standards. One is a standard *ASME A112.18.8: Sanitary Waste Valves for use in lieu of tubular P-traps*. This standard is nearing completion and is currently being balloted to the project team at the time of this writing. The standard is for elastomeric waste valves that are installed in

tubular drain in lieu of p-traps.

The other new standard being developed is for fixture trap and supply covers. The Standard will be known as *ASME A112.18.9: Barrier Free Protection for Traps and Supplies*. A first meeting of this committee is planned Monday January 12, 2009 1pm to 5pm at the Doubletree Hotel, San Diego, Downtown, 1646 Front Street, San Diego, California.

Existing ASME Plumbing Product and Equipment Standards Being Revised

ASME A112.6.1 Supports for Off-the-Floor Plumbing Fixtures. Reaffirmed on February 28, 2008.

ASME A112.6.2 Wall Affixed Support. The standard was reaffirmed on October 5, 2004.

ASME A112.6.3 Floor Drains. The standard was reaffirmed on April 11, 2007.

ASME A112.6.4 Roof Drains. The current standard is under review.

ASME A112.6.5 Hydrants. Mr. Smith reported. The current standard is under review.

ASME A112.14.1 Metallic & Non-Metallic Backwater Valves. The standard was reaffirmed on February 28, 2008.

ASME A112.14.3 Grease Interceptors. The current standard is under revision.

ASME A112.14.4 Grease Recovery Devices. The current standard is under revision

ASME A112.18.1 Plumbing Fixture Fittings. CSA Harmonization efforts are ongoing.

ASME A112.18.2 Fixture Waste Fittings. The standard is waiting ANSI approval.

ASME A112.18.6 Flexible Water Connectors. CSA harmonization efforts are ongoing.

ASME A112.18.8 Sanitary Waste Valve for use in Lieu of P-Traps. Chairman is working to resolve negative ballot comments of both the main committee members and project team members.

ASME A112.19.1 Enameled Iron Plumbing Fixtures. The standard is waiting ANSI approval.

ASME A112.19.2 Vitreous China Plumbing Fixtures. The standard is waiting ANSI approval.

ASME A112.19.3 Stainless Steel Plumbing Fixtures. The standard is waiting ANSI approval.

ASME A112.19.4 Porcelain Enameled Steel Plumbing Fixtures. The Project team chairman, Mr. Pete DeMarco reported the revision of the current standard has been incorporated into the revision of *ASME A112.19.1 Enameled Iron Plumbing Fixtures* ASME staff suggested that PTNorth American Harmonization Group prepare a plan to reorganize the Project Teams to reflect these recent consolidations.

ASME A112.19.5 Trim for Water Closet Bowls and Tanks. CSA harmonization efforts are ongoing.

ASME A112.19.7 Whirlpool Bathtub Appliances. Work is ongoing toward a revision of the current standard.

ASME A112.19.8 Suction Fittings for Whirlpools, Spas & Hot Tubs. The Project Team was working on Addenda "B" to the standard and is being balloted by the Board.

A committee member noted there had been a recent death due to the failure of a cover and the death has drawn attention to the



need for thread torque requirements so the covers do not come off easily.

ASME A112.19.9 Non-Vitreous Ceramic Plumbing Fixtures. CSA harmonization efforts ongoing.

ASME A112.19.13 Electro-Hydraulic Water Closets. CSA harmonization efforts are ongoing.

ASME A112.19.14 Dual Flush for 6L Water Closets. This standard is not being harmonized. References to this standard will be included in the other harmonized standards.

ASME A112.19.17 Safety Vacuum Release System (SVRS).

The Project Team leader will prepare a resolution report with regard to the negative comments received on the latest ballot and submit the completed resolution report to the Secretary of the Main Committee for distribution to those who had comments on the latest ballot. The Secretary of the Main Committee is preparing a complete report of the latest Project Team voting tally including all unresolved negative votes and associated comments for inclusion with a ballot sent concurrently to the Main Committee and Project Team.

ASME A112.19.19 Waterless Urinals. CSA Harmonization of this standard is ongoing.

ASME A112.20.1 Qualification of Installers of High Purity Piping Systems. The current standard is under review.

ASME A112.20.2 Qualification of Installers of Firestop Systems and Devices for Piping Systems. The current standard is under review. □

ASME and AWWA to Jointly Develop an All-Hazards Risk Management Standard for Water and Wastewater Utilities

From ASME Press Release

New York, Jan. 14, 2009 – The ASME Innovative Technologies Institute, LLC (ASME-ITI) and American Water Works Association (AWWA) have announced the formation of a partnership to develop a national voluntary consensus standard encompassing an all-hazards risk management process for use by water and wastewater utilities.

The standard will be based on RAMCAP (SM), the acronym for Risk Analysis and Management of Critical Asset Protection. With assistance from the U.S. Department of Homeland Security, the Environmental Protection Agency and the Water Sector Coordinating Council, ASME-ITI tailored the general version of RAMCAP to apply to water and wastewater utilities and adapt two pre-existing tools to be RAMCAP-consistent. The standard will build on that effort and include protection (avoiding hazardous events or their consequences), and resilience (rapid return to full function after events occur).

By using common definitions, threats, metrics and methods to directly compare risk, resilience, and risk management benefits, the RAMCAP standard will help guide the allocation of limited funds among diverse assets within a utility, across utilities in different communities, and among assets in sectors of critical infrastructure.

This standard will be developed by a committee of volunteers representing water and wastewater utilities, practitioners, academics, and the interested public. ASME-ITI will serve as Secretariat, and the effort will proceed according to ASME-ITI's procedures for standards development.

The American National Standards Institute (ANSI) will review the standard. Approval by ANSI is required for a standard to be issued as an American National Standard.

“We welcome the partnership with AWWA and are eager to develop a voluntary consensus standard for the water and wastewater sector,” said J. Reese Meisinger, president of ASME-ITI. “The standard will build upon previously developed RAMCAP water sector methodology to provide a basis for enabling utilities to make well-founded decisions when allocating necessarily limited resources toward risk-reduction options.”

“The work our committee members do will ultimately enhance our sector's risk assessment capabilities through a practical, yet rigorous process,” said AWWA Deputy Executive Director Tom Curtis. “The approach will be kept relatively simple and intuitive while providing a sound basis for focusing on the most critical assets at any given facility.”



NSF Offers Certification for Low Lead Plumbing Products to Support New State Requirements

Kohler, Moen and Price Pfister Become First Faucet Companies to Demonstrate Compliance with New Lead Regulations

ANN ARBOR, Mich. – NSF International, a not-for-profit, public health and safety organization, today announced that **Kohler, Moen and Price Pfister** have become the first faucet companies to have certain plumbing products comply with the new low lead requirements. Certification allows manufacturers to demonstrate compliance with new state laws, established to help protect the public from exposure to lead, well ahead of the **January 1, 2010** deadline.

The new section of NSF/ANSI Standard 61 - Annex G – *Weighted Average Lead Content Evaluation Procedure to a 0.25 Percent Lead Requirement* – includes the recently enacted legislation in California and Vermont that mandates a maximum weighted average lead content requirement of ≤ 0.25 percent. Other states are also considering low lead content legislation. The new lead requirements apply to manufacturers of faucets, valves, water fittings, and other products that come in contact with drinking water. Compliance with NSF/ANSI Standard 61, the American National Standard for Drinking Water Products, is also required.

NSF/ANSI Standard 61: *Drinking Water System Components -- Health Effects* was updated in December to incorporate requirements for use when the ≤ 0.25 percent lead content requirement must be met, in addition to current chemical extraction requirements of the standard. Compliance is determined by a weighted average calculation involving the maximum percent lead content of material specifications and wetted surface areas.

To receive certification, Kohler, Moen and Price Pfister met the new lead content requirement of ≤ 0.25 percent and the requirements of NSF/ANSI Standard 61, Annex G. All three companies have been certified by NSF to Standard 61 for many years, and they now comply with the new low lead requirements well ahead of the deadline. [Kohler](#), [Moen](#) and [Price Pfister](#) are listed on the NSF Web site with a footnote indicating compliance with the new requirements.

“By obtaining Annex G certification, Kohler, Moen and Price Pfister are emphasizing their commitment to quality and public health protection,” said Nasrin Kashefi, General Manager, NSF Plumbing Programs. “Certification is important because it expands the choices available to consumers when selecting products for their homes. We congratulate these leading manufacturers for being proactive in their response to these new requirements.”

To ensure ongoing compliance with the new lead requirements, NSF will conduct annual, unannounced inspections of the manufacturing facilities for certified products and re-test products on a regular basis.

“Annex G is a consensus standard that took into consideration comments from key stakeholders in California and nationwide. It gives companies a valuable tool for assessing compliance with California’s lead content standard. Companies that meet the standard will be at a competitive advantage,” said Bruce La Belle, Chief, California Department of Toxic Substances Control, Environmental Chemistry Laboratory.

For more information on Annex G and NSF/ANSI Standard 61, visit NSF’s [Web site](#). For more information on NSF/ANSI Standard 61 requirements or NSF testing and certification services to the standard, contact Pete Greiner at 734.769.5517 or greinerp@nsf.org. A copy of Annex G as adopted in NSF/ANSI 61 – 2008 is available on [NSF’s Web site](#).

Additional Background

A verification test methodology is under development, which may be added to NSF/ANSI Standard 61. This methodology can be used when there is a need to verify that the actual lead content of a component is within the stated lead content of the material specification. The work being done on this verification methodology is being performed through the Lead Task Group and California’s Department of Toxic Substance Control (DTSC). Their goal is to establish a consistent protocol that can be used by all.

Lead and Drinking Water Legislation

In response to the new low lead requirements in California (commonly known as AB 1953) and Vermont, NSF is offering certification to Annex G for faucets, valves, water fittings, and other potable water products that are certified to NSF/ANSI Standard 61: *Drinking Water System Components -- Health Effects*. Certification will allow manufacturers to demonstrate compliance with these state laws, which go into effect January 1, 2010 and mandate a maximum weighted average lead content requirement of $\leq 0.25\%$.

Maryland also has a bill in the legislature similar to Vermont and California requiring plumbing codes to be updated to enforce this requirement. The proposed implementation date is January 2011. For more information, [click here](#).

NSF/ANSI Standard 61 was revised in December 2008 to incorporate requirements for use when the 0.25% lead content requirement must be met, in addition to current chemical extraction requirements of the standard. The requirements were placed in Annex G – *Weighted Average Lead Content Evaluation Procedure to a 0.25% Lead Requirement*. Mandatory language placing restrictions on the use of lead as an intentional additive in water contact materials was also added to the Standard under Section 3. [Click on this link for a copy of Annex G](#) as adopted in NSF/ANSI 61 - 2008.



NSF can certify your products today and footnote your existing NSF-61 or NSF 14-pw listings to indicate compliance with the low lead requirement. Three companies have already met Annex G requirements. They include [Anderson Fittings](#), [Kohler Co.](#), [Linx Limited](#), [Moen Incorporated](#), [Performance Meter](#) and [Price Pfister](#).

Certification services are also available to new NSF clients. For more information, existing clients should contact their designated NSF project manager, while new clients should contact Ellen Van Buren at vanburen@nsf.org or (+1) 734-827-3822.

The highlights of the History of the National Sanitation Foundation (NSF)

NSF International, founded in 1944 as the National Sanitation Foundation, is known for the development of standards, product testing and certification services in the areas of public health, safety and protection of the environment. The following timeline takes you through NSF's history, step by step:

- **1944** - Walter Snyder, Henry Vaughn and Nathan Sinai found the National Sanitation Foundation (NSF) in the School of Public Health, The University of Michigan, Ann Arbor, Michigan.
- **1952** - The National Sanitation Foundation Testing Laboratory (NSFTL) is chartered and the Food Equipment Program starts. In addition, NSF establishes the Council of Public Health Consultants.
- **1963** - NSF opens regional offices.
- **1965** - Plastics Piping and Wastewater Treatment Programs start.
- **1976** - Biosafety Cabinetry Program starts with an award from the National Institutes of Health.
- **1980** - Drinking Water Treatment Units Program starts.
- **1984** - Bottled Water Program starts. Health Advisory Board is established.
- **1985** - Drinking Water Additives Program starts with a cooperative agreement from the US EPA.
- **1987** - NSF laboratory opens in Sacramento, California.
- **1990** - NSF and NSFTL merge and the name is changed to NSF International.
- **1991** - NSF receives accreditation by the American National Standards Institute (ANSI) for its product certification programs. NSF establishes networking agreements with KIWA (The Netherlands), JIA (Japan and Korea) and Jenny Hung (Taiwan, R.O.C.). ISO 9000 program starts.
- **1993** - NSF receives accreditation from Netherlands-based Raad voor Accreditatie (RvA).
- **1994** - NSF establishes a networking agreement with IMTA (Mexico).
- **1996** - NSF establishes a joint certification agreement with the Canadian Standards Association (CSA).
- **1996** - NSF is selected as a Collaborating Centre on Drinking Water Safety and Treatment by the World Health Organization (WHO).
- **1997** - NSF is selected as a Collaborating Centre on Food Safety by the World Health Organization (WHO).
- **1999** - The Center for Public Health Education at NSF International, a new division of NSF, is founded.
- **1999** - The Toxicology Group, LLC, a wholly-owned company, is founded.
- **1999** - NSF establishes a partnership with WRc in London.
- **2001** - NSF acquires Cook & Thurber, LLC, the leading provider of processed-based product safety and quality audits for the food, beverage, animal feed, and packaging industries.
- **2001** - NSF forms a strategic partnership with the National Nutritional Foods Association (NNFA), the nation's largest trade organization for manufacturers, retailers, and suppliers of natural products, to provide the most comprehensive certification program for the dietary supplements industry.
- **2001** - NSF acquires the Institute for Nutraceutical Advancement (INA), an organization that develops and validates analytical methods for testing botanical ingredients.
- **2002** - NSF launches food microbiological testing and sanitation audit services for the supermarket industry.
- **2004** - NSF acquires Quality Assurance International, Inc. (QAI, Inc.), the global leader in organic certification.
- **2005** - NSF International Strategic Registrations, Ltd. (NSF-ISR) acquires the operations of Deloitte & Touche Quality Registrar Inc.
- **2005** - NSF expands testing operations in Taiwan with new laboratory in Taichung.
- **2006** - NSF International establishes NSF Shanghai Co. Ltd. in the People's Republic of China.
- **2006** - NSF International partners with Philippine Government to develop drinking water standards.
- **2006** - NSF partners with international food equipment experts to develop CEN Workshop Agreement for commercial food equipment.
- **2007** - NSF completes 80,000 square-foot laboratory expansion.



World Plumbing Council (WPC) Update

I attended the annual meeting of the World Plumbing Council which was held in conjunction with the 8th World Plumbing Conference in Calgary, Canada in September of 2008. Newly elected Chairman, Robert Burgon, presented his vision for the next 3 years in a paper presented to the delegates attending the Council meeting. Mr. Burgon highlighted the significant progress which had been made by World Plumbing Council (WPC) since its formation in 1990 and said that he wished the organization could focus on the following issues during the next 3 years:

- Increase participation at WPC meetings
- Improve international participation in World Plumbing Conferences
- Expand WPC membership significantly, particularly increasing the number of countries in which members are based.
- Strengthen relationships with existing partners (including the World Health Organization and Messe Frankfurt)
- Develop new relationships with other plumbing industry organizations that want to be partners in the areas of water, sanitation, health and the environment
- Increase global awareness of the WPC and the work of the plumbing industry.

The newly appointed Executive Board is comprised of:

Chairman Robert Burgon (Scotland)
Scottish & Northern Ireland Plumbing Employers' Federation (SNIPEF)

Deputy Chairman GP Russ Chaney (USA)
The IAPMO Group

Hon. Secretary/Treasurer Hans Tiedemann (Canada)
Mechanical Contractors Association of Alberta

Board Member Sudhakaran Nair (India)
Indian Plumbing Association

Board Member Hua Mingjiu (China)
Plumbing Facilities Committee of China Construction Metal Structure Association

Board Member Blane Judd (UK)
The Chartered Institute of Plumbing and Heating Engineering

Board Member Linden Raimer (USA)
American Society of Sanitary Engineering

World Plumbing Council retiring chairman, George Bliss, III (USA), Secretary, Andy Watts (England) and Henry Hung (China) were thanked for their significant contributions to the work of the organization and former Executive Board member, Stephen Movley (Australia) now serves as the secretariat to the WPC through his organization, the Institute of Plumbing Australia.

Commenting after the event, Robert Burgon said "It is a huge honor for me to have been elected as Chairman of WPC at such an important time in its relatively short history. So

much has been achieved recently including our relationship with the World Health Organization and the increasing recognition that good plumbing contributes to good health. We now need to build on recent successes and I look forward to working with the new Board in bringing some of our ideas to fruition." The new Executive Board held its first meeting in Seoul, South Korea on October 28-29, 2008 where it developed a new Strategic Plan for 2008-2011. The next General Meeting of the World Plumbing Council will be held on the 11th and 12th of March, 2009. The meeting will be held at the Effekt Room in Hall 3 at the ISH Messe Frankfurt Showground, Frankfurt, Germany. I will be attending this meeting and I will report on the meeting in a future newsletter. They should also be working on plans for the next World Plumbing Conference meeting in Edinburgh, Scotland.

