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Code & Standard Pipeline



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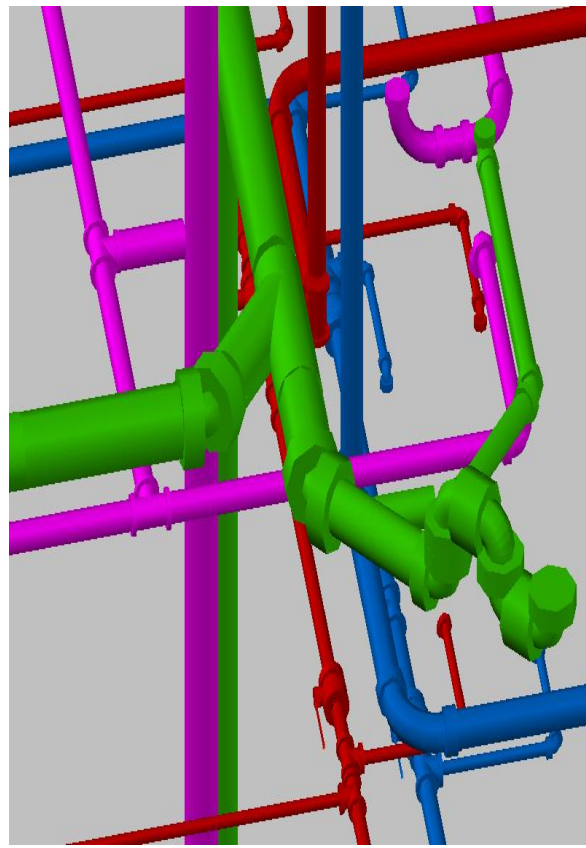
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INDUSTRY CALENDAR

September 2011

- 7-11 **World Plumbing Conferences**
18-21 **ICMA Annual Conference**
Milwaukee, WI www.icma.org
19-22 **RETA Conference**
Greensboro, NC www.reta.com
20-22 **Labs21 Annual Conference**
Providence, R.I. www.tinyurl.com/labs21-2011
21-24 **CONNECT 2011**
Minneapolis, MN www.phccweb.org
25-28 **SMACNA Annual Convention**
Colorado Springs, CO www.smacna.org
25-29 **IAPMO 82nd Annual Education and Business Conference**
San Antonio, TX www.iapmo.org
30 **IAPMO-UPC/UMC Ballot of Tech Committees**
San Antonio, TX www.iapmo.org

October 2011

- 4-7 **Greenbuild 2011**
Toronto, Ontario, Canada www.greenbuildexpo.com
5-7 **2011 WaterSmart Innovations Conference & Exp**
Las Vegas, NV www.asse-plumbing.org
7 **IAPMO UPC/UMC Rec'd of initial ballots re-circulate comments to tech. comm.. members**
10-11 **Building Envelope Technology Symposium**
Charlotte, NC www.rci-online.org/symposium.html
10-14 **World Standards Week 2011**
Washington DC www.asse-plumbing.org
12-14 **World Energy Engineering Congress**
Chicago, IL www.energycongress.com
14 **IAPMO UPC/UMC final closing date of ballots & receipt Of vote changes based on re-circulated comments**
13 **US Celebration of World Standards Day 2011**
Washington, DC www.ansi.org
17-20 **Solar Power International Convention**
Dallas, TX www.tinyurl.com/SP12011
19-21 **NEBB Annual Conference**
Savannah, GA www.nebb.org
20-22 **2011 AMCA Annual Meeting**
Koloa, Hawaii www.amca.org
22-26 **HARDI Annual Fall Conference**
Maui, Hawaii www.tinyurl.com/HARDIfall2011
26-28 **IFMA's International Facility Management Association**
Phoenix, AZ www.workplace.org
27-30 **ASPE 2011 Technical Symposium**
Orlando, FL www.aspe.org
30-3 **ICC 2011 Annual Conference**
Phoenix, AZ www.iccsafe.org

November 2011

- 2-5 **RSES Annual Conference**
Norfolk, VA www.rses.org
8-10 **IAPMO Standards Council Meeting**
Ontario, CA www.iapmo.org
9-12 **ASSE 2011 Annual Meeting**
New Orleans, LA www.asse-plumbing.org
13-15 **AHRI Annual Meeting**
Bonita Springs, FL www.ahrinet.org

December 2011

- 5-9 **Ecobuild 2011**
Washington, D.C. www.aeceobuild.com

January 2012

- 21-25 **ASHRAE Winter Conference**
Chicago, IL www.ashrae.org
23-25 **International Air-Conditioning Heating, Refrigerating Exposition**
Chicago, IL www.ahrexpo.com

February 2012

- 7-10 **interclima+elec 2012**
Paris, France www.interclimaelec.com

March 2012

- 22-24 **CMX-CIPHEX**
Toronto, Canada www.cmxshow.com
27-30 **Mostra Convegno Expocomfort**
Milan, Italy www.mcxpocomfort.it

April 2012

- 14-18 **IARW-WFLO-IRTA**
Tucson, AZ www.iarw.org

May 2012

- 17-19 **AIA National Convention & Design Expo**
Washington, D.C. www.aia.org

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Water Conservation Research and Legislative News

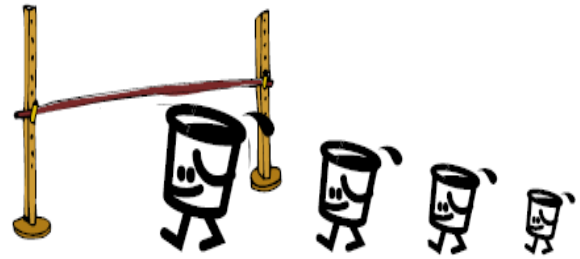
By: Ron George, CPD, President, Plumb-Tech Design & Consulting Services LLC
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There are numerous plumbing and conservation groups working to conserve water and energy. Some of these groups with similar goals are now joining forces to work together for water efficiency. There has been research testing on many models of water closets to test the individual fixtures for the ability to flush the contents of a water closet bowl and transport the contents at least 40 feet down the drain in accordance with ASME A112.19.2-2008/CSA B45.1-08 Ceramic Plumbing fixtures standard. Maximum performance testing was developed to evaluate which water closets performed satisfactorily in the late 1990s and testing has been updated in recent years. You can find information on the maximum flushing performance testing of popular water closet models at the following website:

<http://www.map-testing.com/info/designers.html>.

Several of the water conservation minded organizations have joined forces to make sure water use reductions are made with an eye on the big picture. We seem to be in a water reduction limbo with many water and energy efficiency programs simply focusing on points for water use reduction with no regard as to drainage system solids transporting performance at lower flow rates. Research is needed to determine the minimum flow rates to effectively transport solids down the drain line for each pipe size and slope. It is for this reason that several years ago I added the slogan "Save Water Wisely" to the bottom of my e-mails.

Many states have arbitrarily selected water use reduction numbers based on water use reduction goals in the various green or sustainability programs offering points for water use reductions. LEED is one of the programs that offer points for various 10 percent water use reduction increments. Many politicians that want to be perceived as forward thinking, and environmentally friendly have proposed legislation to further cut the water consumption by various plumbing fixtures in the year 2014 in California and Texas. It is like the 1992 Energy policy act all over again. Politicians are mandating water reductions were chosen without testing or research that show that flow rates are attainable or sustainable.



Water Conservation Limbo

Plumbing Efficiency Research Coalition

The American Society of Plumbing Engineers (ASPE) has joined the Plumbing efficiency Research Coalition (PERC). PERC now has six member organizations. The coalition was founded in 2009 to develop research projects that will support the development of water efficiency and sustainable plumbing products, systems, and practices. The goal is for projects to be financed through government grants, foundations, and private financing.

The representatives of each of PERC's member organization are: Jim Kendzel, Executive Director/CEO of ASPE; Mary Ann Dickinson, Alliance for Water Efficiency (AWE); Pete De Marco, International Association of Plumbing and Mechanical Officials (IAPMO); Jay Peters, International Code Council (ICC); Gerry Kennedy, Plumbing-Heating-Cooling Contractors National Association (PHCC-NA); and Barbara Higgins, Plumbing Manufacturers International (PMI).

PERC is comprised of industry organizations seeking to conduct much-needed research in a number of areas. The Coalition has identified drain line transport as its first research project, and IAPMO's Pete DeMarco serves as project coordinator for this inaugural research study and also chairs the technical committee assigned to the project. Each of the member associations of PERC has named a representative to this committee. With the parameters of the project defined, the organization is now seeking funding. In January 2011, Representatives of PERC signed a memorandum of Understanding (MOU) with the Australasian Review of Reduction of Flows on Plumbing and Drainage

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Systems Committee for their program known as "AS Flow" at the offices of the U.S. Environmental Protection Agency. Steve Cummings an Australian Researcher and his colleagues have pioneered many ultra low flow drain studies in Australia because of water use restrictions. The MOU details several areas of collaboration between the groups to ensure that research efforts are not duplicated and that information and results are shared. The AS Flow program is also investigating the impact of reduced water flow in sanitary drainage systems, resulting from reduced water use from low flow plumbing fixtures and fittings, appliances, and commercial and institutional equipment. These ultra-low-flow fixtures have created a condition that is being referred to as "dry drain syndrome". I have always said there needs to be enough water in the river to float the boats. This research will determine what the minimum flow volume for various fixtures needs to be in order to have proper drain line transport of solids.

Critical Drain Line Transport Study Needs Funding Support

PERC received its first research funding donations from National Resources Defense Council (NRDC) Action Fund and "AS Flow" in Australia. The donations were reported to be for ten thousand dollars (\$10,000.00) each and are greatly appreciated however, there is a long way to go for funding before research can begin. Budget projections show the first drain line research project will cost approximately one hundred seventy thousand dollars (\$170,000.00). The coalition still needs to raise about one hundred fifty thousand dollars (\$150,000.00) in funding before research can begin. Due to the complexity associated with the number of variables in "real world" plumbing systems, PERC representatives believe that a multi-faceted design experiment is required to properly measure the impact of the toilet fixture toward drain line transport relative to other plumbing system variables, such as pitch, and flush volume.

Reduced flush volumes from high efficiency plumbing fixtures reduce the drain line flows. What is in question is whether these reduced flows are all likely to cause an increase in

blockages in the drain lines. We have heard the stories about the increase in drain line cleaning service calls shortly after the energy policy act of 1992 established lower flow rates for plumbing fixtures beginning in 1994. International studies and some field failures reported recently in Australia have indicated that flush volumes consistent with High-Efficiency Toilets (HET) or Ultra-Low Flush (ULF) toilets may result in systemic drain line transport related failures in building drains or sewer lines in those countries. The Plumbing Efficiency Research Committee (PERC) has proposed a study to scientifically evaluate drain line transport issues and to determine if the use of higher volume discharges at intermittent intervals (1 or 2% of flushes) could be an effective way to clear drain lines. Drain line carry is a critical issue that must be better understood as concerns over reduced flows have discouraged some utilities from implementing commercial high efficiency toilet replacement programs.

Due to a lack of funding, work has yet to commence on this study a full two years after PERC identified drain line transport as its first priority project and a year after the Alliance for Water Efficiency's Research Committee identified drain line carry as its highest research priority. The Alliance for Water Efficiency is inviting participation by organizations or manufacturers to become funding partners to step up and help get this important project launched.

Proposal to Investigate Drain Line Transport in Buildings

To better understand where we are and how we got here we need to go back to the enactment of the Energy Policy Act of 1992. The energy Policy act set maximum flow rates for most plumbing fixtures. All water closets (toilets) manufactured in the United States or imported into the United States were required to flush no more than a maximum average of 1.6 US gallons. Since manufacturers needed time to design and manufacture newer low flow fixtures the legislation allowed a two year grace period for residential fixtures and a five year grace period for commercial fixtures. The legislation for residential models became effective January 1, 1994 and January 1, 1997 for all commercial models. At that time, concern for drain line solids transport efficiency was voiced by many in the

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plumbing industry and many of those in various professional associations. Soon after the deadline there were many reports of poor performing 1.6 gallon per flush (gpf) water closet models. It was also discovered that many people were finding ways to boost the flush efficiency by modifying some of the water closet models on the market in response to significant consumer complaints about poor flush performance. Since then, water closet manufacturers have made great strides in improving flushing performance. Intermittent and anecdotal complaints of drain line carry transport problems were not thoroughly researched prior to the legislation and manufacturers placed much of the blame on oversized, older or faulty sanitary drain lines.

Recently, the need to find additional efficiencies on water-consuming plumbing fixtures to meet additional LEED point requirements 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. At some point the laws of physics apply. If a 1.6 Gallon per flush water closet moves the solids 42 feet down the drain line, and 1.28 gallons per flush move the solids 28 feet down the drain line, at some point the solids won't move at all. There needs to be a minimum hydraulic depth of flow or a wave depth for the solids to surf on. The States of California and Texas have passed legislation to require all toilets sold in those states to be 1.28 gallon per flush High Efficiency Toilets (HET's) by the year 2014. There are other provisions in California that will significantly accelerate this transition and it is anticipated that other areas of the country will soon enact similar requirements. Some water closet manufacturers are now voluntarily offering models that flush at 1.0 gpf. One manufacturer is actively marketing a model that flushes at 0.8 gpf. This activity has rightfully raised the debate of drain line solids transport efficiency. Many plumbing experts are concerned that we are at or approaching a "point of diminishing returns" where a significant number of sanitary waste systems will be adversely affected or plugged by drain line stoppages caused by poor drain line transport or what has been referred to as "Dry Drain" problems. Dry Drains are especially a problem in larger commercial systems that have long horizontal runs to the sewer. I witnessed the drain line transport problems in a hospital project where we renovated a basement area of a hospital and replaced old 3.5 gallon per flush

water closets with 1.6 gallon per flush water closets. After the renovation the drains became clogged every few weeks and when the hospital maintenance personnel removed the cleanout in the basement corridor of this multi-million dollar Magnetic Resonance Imaging wing, raw sewage ran all over the basement floor of the hospital. The clean-up costs were very expensive and this situation repeated itself several times until adjustments could be made in the flushing volume. Was saving a few gallons of water worth shutting down the hospital for days at a time and exposing people to raw sewage on a regular basis? I save "Save Water Safely". We need to perform the research before setting lower flush volumes. For many years, drain line transport problems have been reported in Europe and Australia, and studied by AS flow members further raising awareness and concerns here in North America.

Looking forward, newer technologies, such as non-water consuming and High Efficiency urinals (HEUs), lower flow rate faucets, low flow showers and increasingly efficient water consuming appliances will further reduce the amount of water discharged into sanitary waste systems. Equally significant are gray water reuse systems that collect discharged water from lavatory basins, clothes washers, bathtubs and shower fixtures in a residence for reuse, usually for irrigation purposes. This is another emerging technology that significantly reduces waste water in residential sanitary drainage systems. On the commercial side, the emphasis upon water and energy use reduction has resulted in a proliferation of products in the medical and food service sectors that substantially reduce flows to the drain. Liquid Ring Vacuum pumps that used water for a vacuum seal are being replaced with newer water free technologies. In commercial kitchens the pre-wash sink overhead spray has proven to be a large user of water. Newer low flow pre-rinse spray heads can conserve large amounts of water and energy. Yet, to date, an extensive research project of sufficient scope has yet to be conducted that would determine if significant problems could arise regarding drain line transport in these "efficient buildings".

Emerging Technologies with Potential to Minimize Drain Line Blockages

Based on the casual observations of previous drain line transport research efforts, it is known that intermittent injections of clear water surges of sufficient volumes can flush the drains and transport solids in the drain line great distances and, theoretically, clear a building drain out to the connection to the sewer. For commercial installations, flush-o-meter-valves that employ hands-free electronic activation can now be programmed to flush at pre-designated times and at user-selected volumes.

For example, consider a commercial office building with restrooms employing a bank of High Efficiency flush-o-meter-valve toilets that flush at 1.28 gallons per flush (4.8 Liters per flush). For example, at pre-determined intervals, the toilets furthest upstream (on the drain line) can be programmed to flush once or twice per day with a higher flush volume that clears the building drain of all solids and transports the solids to the sewer.

These new programmable features have the potential to offer a very low-cost solution for many commercial installations. As such, PERC is recommending that this potential solution be worked into the test plan.

PERC Laboratory Testing for Drain Line Transport Study

The focus of this effort will be to verify the feasibility of using programmable flush-o-meter valves or other sources of clear water to clear long drain lines of deposited solids and to measure the relative importance of other systemic variables. This work would best be conducted on an apparatus employing 4" diameter pipe set at both minimum slope of one percent and a slope of two percent. The study would involve investigating various flush volumes so as to intentionally deposit test media along the length of the test apparatus. The data from the resulting transport distances will allow for determining the relative importance of the test variables. At the end of each test run, a higher volume clear water discharge will be introduced into the drain line apparatus (simulating a discharge from a pre-programmed

flushometer-valve) in order to observe the clearing potential of the clear water discharge. A 300 foot long (~90 meters) test stand is recommended to conduct this test. This will allow for adequate distance to show resolution in drain line transport at the various test flush volumes. In addition, the long distance simulates worst case commercial building drain installations and will allow us to determine if the high volume clearing has potential to clear very long commercial building drains.

To minimize costs, PERC will seek to conduct this test program on a suitable existing test apparatus. PERC is currently in the process of executing a MoU with the AS-Flow committee in Australia. Once the MoU is executed, PERC plans to review this test proposal with the AS-Flow Committee to determine the most cost effective location to conduct this work.

PERC Test Plan Details

The PERC Technical Committee has developed a proposed test plan to accomplish this work. Below are the variables that need to be considered for the test plan. (Also see the associated Excel file that details the designed experiment test plan.)

1. Flush volume: Discharge levels of 1.6 gpf (6.0 Lpf), 1.28 gpf (4.8 Lpf) and 0.8 gpf (3.0 Lpf) will be evaluated
2. Pipe Diameter and Material: 4" (100mm) diameter clear PVC only. It would be preferable to also evaluate 3" and 6" diameter pipe, but to minimize costs; only 4" (100mm) diameter will be used for this initial work.
3. Toilet Discharge Flow Rate / Velocity: Needed to simulate fast acting and slow acting toilets. The PERC Committee will use a "surge generator" type device to simulate those flow rates (rather than actual toilet fixtures). This device (see photo) will allow for more consistent discharge and will maintain the test plan variable pertaining to the discharge more accurately than can be achieved by using actual toilets.
4. Trailing water: The surge generator will be constructed to allow injection of the solids at various points that result in a high volume of trailing water (70%), typical of fast acting toilets, and a lower

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volume trailing water (20%) typical of slower acting toilets.

5. Test Media: Soy bean paste (miso paste) will be used to simulate solid human waste. This test media has been used extensively to test toilets to various flush performance tests, including the current US EPA WaterSense specification for gravity flush toilets in the United States and has achieved good acceptance in the industry as an appropriate test media. Two-ply toilet paper will also be used.
6. The following assumptions pertaining to flush discharges into the test apparatus will be applied:
 - a. A 3:1 ratio for solid and liquid waste flushes
 - b. 50 / 50 "male to female" ratio
 - c. All males use urinals, not toilets for liquid waste.*
 - d. No other long duration flows (showers) are available to assist the toilet. (This is because in grey water systems shower water will be collected for re-use) Urinals do not provide any transport assist (waterless or .125 gallons per flush).
 - e. Males: 33.3% solid waste flushes using miso and toilet paper (4 balls @ six sheets each), 0% liquid flushes.
 - f. Females 33.3% solid waste flushes using miso and toilet paper and 66.7% liquid waste using toilet paper only (4 balls at 6 sheets).*
 - g. Essentially, this equates to 50% of the flushes having miso and paper and the other 50% having a lesser amount of paper only.
 - h. The miso loadings will randomly vary between 300 grams, 200 grams and 100 grams for all solid flushes for each round of testing.
 - i. Frequency and volume of clearing flush: The test plan will start using a 1% frequency for the clearing flush set at 3 gallons (11.4 Liters). If successful at clearing the 300 foot (90 Meter) test apparatus at these levels no additional testing will be required. If not, evaluation at 2% frequency or at higher flush volume may be required. It will be up to the test engineer to determine if those

values need to be revised once we begin testing, based on observation.

*The above assumptions are not provided to simulate reality in all cases, but rather to provide an assumed worst case scenario.

The Alliance for Water Efficiency (AWE) and the American Council for an Energy Efficient Economy (ACEEE) Release a Water-Energy Blueprint for Action and Policy Agenda

For the past 30 years, strategies to conserve and increase the efficiency of energy use have been widely pursued in parallel with comparable water efficiency efforts. For the most part, efforts to conserve water and energy have not been coordinated in a coherent, collaborative manner. Today there is a growing realization that these separate activities could realize significant benefits from coordination.

Recognizing this need for collaborative actions, the Alliance for Water Efficiency (AWE) and the American Council for an Energy-Efficient Economy (ACEEE) secured a grant from the Turner Foundation to bring these two communities together to establish a blueprint for future joint efforts and to envision a policy agenda that could drive actions at the federal, state, local, and watershed levels.

The blueprint addresses three broad elements: policy/codes, research, and programs. In developing it, AWE and ACEEE have analyzed and consolidated contributions from over fifty thought-leaders from across the energy and water efficiency communities. The goal of this blueprint and policy agenda is to provide a framework for collaborative action, funding, and policy development.

The blueprint strives to learn from the experiences of both the energy and water communities, building on existing policies, programs, and relationships. The blueprint also contains a policy agenda describing the opportunities available for policymakers at every level of government.

The link between energy and water has not received the amount of research and policy attention that it deserves.

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Water Efficiency Legislation Introduced in the 112th Congress

The authorization of the Environmental Protection Agency's WaterSense program is at the heart of legislation introduced in late May by New Jersey Representative Rush Holt. H.R. 1967, The Water Advanced Technologies for Efficient Resource Use Act of 2011, the WATER Act, takes a comprehensive "approach to boost jobs to install, sell, and manufacture water efficient products and services."

WaterSense, launched in 2006, is the EPA partnership program that seeks to protect the future of our nation's water supply by promoting water efficiency and expanding the market for water efficient products and services.

H.R. 1967 mirrors the provisions that were included in H.R. 2368 (the Holt-Miller WaterSense authorization bill) and H.R. 2454 (the 2009 Waxman-Markey Climate bill) from the 111th Congress and provides for:

- Authorization of the WaterSense program
- Grants to establish or expand local programs that offer rebates or vouchers to consumers that purchase water efficient products and services
- Federal agencies to purchase cost effective water efficient products.

The legislation includes \$50 million in funding for the retrofit incentive program. The bill has been referred to the House Committees on Energy and Commerce Committee, Armed Services and Oversight and Government Reform.

The Water Act Bill Summary:

This bill takes a multifaceted approach to boost jobs to install, sell, and manufacture water efficient fixtures. In summary, the bill:

- Authorizes a federal labeling program, the EPA's WaterSense program, to help consumers identify water efficient fixtures and services.
- Provides grants to establish or expand local programs that offer rebates or vouchers to consumers that purchase water-efficient products and services.
- Directs federal agencies to purchase cost-effective water-efficient products.

Motivation for Consumers and Industry

- Rebates and vouchers encourage consumers to purchase water efficient fixtures, such as faucets and toilets. This would create jobs for the plumbers and contractors that install these products and boost jobs in manufacturing these advanced devices.
- These rebates and voucher programs would create at least 18 jobs per million dollars of investment, according to the Alliance for Water Efficiency. This compares to the approximately 14 jobs created per million dollars of investment in construction, as calculated by the Congressional Research Service.
- Similarly, sales of water efficient products would be increased further through federal procurement of water efficient fixtures. This also would spur the creation of installation, retail, and manufacturing jobs.
- These economic benefits would reap environmental ones as well. If only one out of every 100 American homes retrofitted their homes with water-efficient fixtures, we would save enough energy to power about 9,100 homes for an entire year and avoid adding 80,000 tons of greenhouse gas to the atmosphere.

Government Accountability Office Report Identifies the High Energy Costs of Water and Wastewater Treatment

Energy costs to run city water and wastewater systems consume up to half of municipalities' energy bills, according to a Government Accountability Office (GAO) study.

According to the report, many cities recognize that they allocate 30 to 50 percent of their energy budgets to water and wastewater systems, but they fail to use efficient technologies and equipment, upgrade infrastructure or adopt water conservation measures.

In many cities, the costs to meet regulatory standards for water quality testing and the needs of other city departments override the need for appropriating money to redesign water treatment plants or utility infrastructures to cut water and

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wastewater system energy costs, according to the report. I saw this first hand when the water and sewer board I served on decided to not replace old clay tile sewers that caused a significant infiltration of storm water and groundwater into the wastewater treatment plant during wet weather. They chose to simply build wastewater ponds for diverting the excess flows into and treated the storm surge flows after the storm event.

The Department of the Interior Climate Report Identifies Increased Risks in Western U.S.

The United States Department of the Interior (DOI) has released a report that assesses climate change risks and how these risks could impact water operations, hydropower, flood control and fish and wildlife in the western United States. The report to Congress represents the first consistent and coordinated assessment of risks to future water supplies across eight major reclamation river basins. The report shows several increased risks to western United States water resources during the 21st century. Specific projections include: a temperature increase of 5–7 degrees Fahrenheit; a precipitation increase over the north-western and north-central portions of the western US and a decrease over the south-western and south-central areas; a decrease for almost all of the April 1st snowpack; a standard benchmark measurement used to project river basin runoff; and an 8–20% decrease in average annual stream flow in several river basins including the Colorado, the Rio Grande and the San Joaquin.

In addition to drain line transport research concerns we must also remember that when reducing flows at showerheads to flows below two gallons per minute it can significantly impact the ability of the shower control valve to maintain a safe outlet temperature. This can lead to thermal shock and scalding incidents especially on older-style non-pressure or temperature compensating type shower controls and on shower controls without check valve to limit crossover flow from hot to cold. Remember we must save water wisely.

Plumb-Tech Design & Consulting Services, LLC

Ron George Design and Consulting Services has a new Company name as of January 1, 2011. The company began operating as **Plumb-Tech Design & Consulting Services, LLC** on January 1, 2011. The Company will continue to provide plumbing, mechanical and fire protection design services along with 2D and 3D Cad services. The Company also provides Building Information Modeling (BIM) services and 3D computer construction coordination services where 3D files are used to build a virtual model of a building and with conflict resolution software identify construction conflicts in the virtual world prior to the conflicts arising in the real world. Plumb-Tech will also provide Code & Standard consulting, investigations of mechanical system failures with technical reports, litigation support and plumbing design and code seminars.



Click on the link below to visit our website:
<http://www.plumb-techllc.com>



Code Council, World Toilet Organization Draft of Global Toilet Design Guideline Ready for Public Comment

Alarming statistical facts such as 2.6 billion people do not have access to proper sanitation, a child dies of a waterborne illness every 15 seconds, and safe drinking water is not available to 1.1 billion people likely generate compassion. But it does much more than that for global sanitation leaders and professionals in the water- and plumbing-related fields who can drive change and help save lives.

One major initiative intended to facilitate easier, less costly construction of restrooms is the “Global Guideline for Practical Toilet Design.” Developed by the International Code Council (ICC) and the World Toilet Organization (WTO), with assistance from committee members representing sanitation-related organizations around the globe, the document is in the final stages of development, scheduled for late summer release.

A culmination of three years of work and participation from a diverse field of global experts from Africa, Australia, Ghana, Indonesia, Malaysia, Singapore, Sweden, the United States, and the United Kingdom, the public comment period marks the last stage of development of the Guideline. The committee invites all interested global stakeholders to participate in the final stages of development by reviewing the draft of the document and providing input. After this stage is complete, the document will be available for use by all professionals who are in any way involved with public restrooms.

“We have already received inquiries from several international governments wishing to arrange for its review and adoption upon completion,” the International Code Council’s Jay Peters said. “The interest was so high when we presented the first draft to the World Toilet Summit attendees in Macau that the audience wouldn’t leave the room. We are very excited and proud of this document and all that it will mean to millions of people around the world.”

The committee is a virtual who’s who of the global sanitation industry. In addition to Drew Azzara, Lee Clifton, Velma Morga, Jay Peters, and Sylvana Ricciarini with the International Code Council, founding members of this committee and other professionals who contributed substantially to the initial draft of the Guidelines include Naning Adiwoso, Asosiasi Toilet Indonesia; Kathryn Anthony, University of Illinois at Urbana-Champaign; Bill and Scott Chapman, Australian Toilet Organization; Steve Cummings, Caroma Dorf and Standards Australia; Jan-Olof Drangert, Linkopings University; Peter Gorges, Exeloo RBA PTY Ltd; Clara Greed, Viva City 2020; Carol McCreary, Public Hygiene Lets Us Stay Human (PHLUSH); Trevor Mulaudzi, The Clean Shop; John-Henry Nicholas, Institute of Plumbing South Africa (IOPSA); Charles Owusu, Benedict-Sanitation and Development Trust Fund; Jack Sim, World Toilet Organization; and Frank Wu, M.H. Wu & Associates.

“It has been so fulfilling to work with such a devoted group of sanitation professionals,” ICC Director of Global services Sylvana Ricciarini said. “I look forward to the dissemination and implementation phase of this important guideline to improve sanitation conditions around the world.”

The document intent is to standardize the design and installation of public toilets for any country to easily adopt and follow. Although public restrooms exist through much of the world, consistent design would be much more cost effective to install and maintain than having literally thousands of variations on a relatively basic design. This improved efficiency, not only reduces costs, but should enable installations in areas where previously they might not have been affordable.

“Adequate sanitation conditions should be a basic human right,” stated Professor Clara Greed, whose area of specialization is urban planning. “As such, they should be an integral part of the planning of cities and construction of all buildings. The Global Guideline is an excellent first step with regard to this goal.” Clara, based in the United Kingdom, is well known worldwide for her advocacy to improve,



not only access to sanitation, but equal and fair access for women through proper potty parity as well.

Tantamount to the fact that 40 percent of the world's population does not have access to toilets is the lack of education regarding the need to keep human waste separate from drinking water supplies. Many areas have plenty of water. But because the water source is contaminated by waste due to lack of proper sanitation, it is undrinkable.

While the Global Guideline does not cover sanitation education, many of the committee members and other global leaders supporting the sanitation cause will focus their efforts on education to one day eradicate death and disease from waterborne illness due to unsanitary conditions that are easily preventable.

This has been a major initiative of the World Toilet Organization, which is dedicated to eradicating death and illness caused by improper sanitation. "Sanitation education is absolutely critical to the global sanitation crisis," said Jack Sim, founder of the World Toilet Organization. "When people understand the importance of proper hygiene, it makes such a huge difference in the health of their family and their communities. This Guideline will help save countless lives."

Education about the need for sustainable sanitation is critical, not only for the 40 percent of the population who don't have access to toilets, but also those who can help drive change towards greater access to toilets. "Containment of waste is crucial for good health, while cleanliness is crucial for sustained use," added Professor Jan-Olof Drangert with Linköping University in Sweden. "The Guideline will help sanitation-related professionals to enhance sanitary conditions for millions of people."

The document is intended for use by governmental jurisdictions, building and health inspectors, plumbers and the rest of the construction industry, as well as cleaning and maintenance professionals.

It will provide guidance on construction of standard restrooms, along with direction on accessories such as hand dryers, soap

dispensers, etc. The Guideline also includes maintenance and cleaning instructions to ensure installed public restrooms remain hygienic and safe. It also includes basic care and maintenance of these facilities. Specific provisions reference the practical design, location, erection, installation, alteration, repairs, replacement, use and maintenance of public toilets.

Beyond publishing this highly anticipated Global Guideline, the WTO and ICC PMG are already exploring new opportunities for guidelines that progress and assist in providing safe and sanitary facilities to the 2.6 billion people who still do not have access to toilets.

For more information about the Global Guideline, including learning how you can help in the efforts to save countless lives through improved sanitation conditions, contact the Code Council's PMG Resource Center. To review the draft of the Global Guideline for Practical Toilet Design, visit <http://www.iccsafe.org/cs/Pages/G3-2011.aspx>



CEO Rick Weiland Speaks on IgCC at China's Premier Green Construction Conference

Worldwide, buildings consume nearly 40 percent of the world's energy, 25 percent of its wood and 15 percent of its water. As such, buildings account for 30 percent of greenhouse gas emissions and have significant impact on the environment, economy and society. Therefore, green buildings can make a major contribution to tackling climate change and energy use. In order to accomplish the goal of low-impact development and a sustainable future, green building must be a global movement.

China has the largest building construction market in the world and it is growing at an explosive rate. The World Bank estimates that by 2015, half of the world's building construction will take place in China. The Chinese government has invested hundreds of billions of dollars in green building in order to combine further economic growth with increased energy supply security and reduced local air pollution. The combination of China's booming construction industry and its critical need for green buildings makes it a very exciting international opportunity for green building products and services.

As China's premier green design and construction conference, Global Green Building (GGB) featured a broad range of sessions focused on design, economics, technologies, project delivery models and products that lead to high-performance buildings and minimize the environmental impacts of our creations. The GGB 2011 provided a highly professional forum that promoted collaborative excellence between stakeholders, and brought together key stakeholders and expert speakers from around the world to promote eco-friendly design and construction methods and solutions that foster green building development.

The Code Council's CEO Rick Weiland delivered a presentation on the "*International Green Construction Code* (IgCC): Game Changer in Sustainable Building" to a diverse audience of decision makers in Shanghai, China. The audience was made up of senior Chinese government officials, representatives of real

estate developers, utilities, project operators and contractors, leading technology and service providers, leading architectural firms, equipment suppliers, and investors.

Board Names Codes & Standards Council; CAC Appointments Expected In August

The Code Council Board of Directors has appointed the Codes & Standards Council to review and approve new codes and standards projects, advise the ICC Board regarding committee appointments, and review code development policies and procedures. At its July meeting, the Board is expected to appoint four Code Action Committees (CACs). The CACs will meet this fall in support of the Group A code change deadline of January 3, 2012, for the *International Building, Plumbing, Mechanical and Fuel Gas Codes*. With the completion of the 2011 Code Development Hearings for the *International Green Construction Code* and the *International Swimming Pool and Spa Code* in May, the upcoming Report of Hearings also will include a notification of a Call for Committee to receive applications for the 2012/2013 IgCC and ISPSC Code Development Committees. The application deadline was August 1.

ICC Board Expands Code Action Committees

To assure continued excellence in the technical requirements of the *International Codes* and to create additional opportunities to participate in the ICC Code Development Process, beginning with the 2012/2013 Cycle, the Code Council Board of Directors has expanded the Code Action Committees (CACs) to cover all 15 I-Codes. The four CACs are the Building Code Action Committee (BCAC); the Fire Code Action Committee (FCAC); the Plumbing, Mechanical and Fuel Gas Code Action Committee (PMGCAC); and the Sustainability, Energy & High-Performance Building Code Action Committee. Representatives of the BCAC, FCAC and PMGCAC will hold a joint meeting September 21-22 in Chicago.



- MEETING NOTICE - ICC Code Action Committees (CAC) Building (BCAC) Fire (FCAC) Plumbing, Mechanical, Fuel Gas (PMGCAC)

The BCAC, FCAC and PMGCAC have scheduled a joint meeting of these three Code Action Committees for September 20 - 21, 2011.

The location is as follows:

Four Points Sheraton Chicago O'Hare
10249 W. Irving Park Road
Schiller Park, IL 60176
847-671-6000

Room rate \$ 99

(Cut-off date is September 6th)

September 20: 8:00 am – 5:00 pm

September 21: 8:00 am – 2:00 pm

CAC scope: The BCAC and PMGCAC are new CACs this cycle. The FCAC is the Code Action Committee which replaces the Joint Fire Service Review Committee (JFSRC) which has been active in previous cycles. In accordance with Council Policy 31 Code Action Committees, the scope of these three CACs is as follows:

BCAC: IBC except Chapters 7, 8, 9, 14 and 26;

IEBC; IPMC; IRC Chapters 1 – 10; IZC

FCAC: IBC Chapters 7, 8, 9, 14 and 26; IFC;

ICC Performance Code; IWUIC

PMGCAC: IFGC; IMC; IPC; IPSDC; IRC

Chapters 12 -33; ISPSC

Tentative agenda:

The initiation of • Code Action Committee activities for the 2012/2013 Cycle

A joint meeting • of all three CAC's to discuss logistics and procedures

Breakouts into • each CAC for the review and identification of code related issues for purposes of possible 2012/2013 Cycle code change development.

The creation of • Work Groups of interested parties for each CAC

FOR FURTHER CAC INFORMATION BE SURE TO VISIT THE CAC WEBSITE AT (some parts under construction):

www.iccsafe.org/cs/cac/Pages/default.aspx

All meetings are open to the public. As a new activity, for space planning considerations, if you plan on attending, please contact Lauren Crane @ lcrane@iccsafe.org. Hotel – airport logistics: Complimentary hotel shuttle.

FOR ADDITIONAL INFORMATION, PLEASE CONTACT:

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ICC, AACE to Develop Joint Exams for Inspector Certifications

ICC and the American Association of Code Enforcement (AACE) are collaborating on the use of the same exam for members of both organizations seeking certification as either a Property Maintenance & Housing Inspector or a Zoning Inspector. Pictured finalizing the agreement are, from left, ICC COO Dominic Sims and Education & Certification Executive Director David Dufresne, and AACE President Sherri Johnston.

Coalition Advocates for Incentive to Adopt Codes

To help communities recover from natural disasters while saving taxpayers money, ICC helped draft testimony for the BuildStrong Coalition that was submitted to U.S. Senate Homeland Security and U.S. House Transportation and Infrastructure subcommittees that urges Congress to pass the Safe Building Code Incentive Act (H.R. 2069), which would create a financial incentive for states that have adopted and enforced statewide building codes.



ASPE Joins with IAPMO on Hunter's Curve Revisions

Ontario, Calif. (July 25, 2011) – The increased use of high-efficiency plumbing fixtures, fixture fittings and appliances – and the subsequent decreased demand for water in our nation's commercial buildings and residences – has resulted in the need to revise the methodology for properly sizing plumbing systems. In response to this, IAPMO and the American Society of Plumbing Engineers (ASPE) convened a special task force of industry representatives that has been reviewing this matter and is working toward recommendations for the reduction of pipe diameters in certain applications.

Oversized pipes in plumbing systems waste water and energy and may present a potential health and safety concern, as low velocities inside water pipes reduce scouring on the interior pipe walls, which can lead to biofilm buildup. However, under-sizing plumbing systems will result in serious performance consequences, as well, so this complex project must be approached cautiously.

To assist in the mathematical and statistical portion of this work, ASPE has appointed three high-profile members to work with Dan Cole, IAPMO's technical services supervisor and also an ASPE member.

"I enthusiastically welcome the American Society of Plumbing Engineers to IAPMO's Pipe Sizing Task Group to help advance the project of revising Hunter's curve in response to the need for a more accurate codified water-demand estimate for plumbing systems using high-efficiency fixtures," Cole said.

The three ASPE members who will work with Cole on this project are Jason Hewitt, PE, CPD, LEED AP, of CB Engineering; Tim Wolfe, PE, of BSA Life Structures; and Thomas Poerio, Ph.D., PE, LEED AP, of Univesco, LLC. All three are experts in advanced mathematics and will be invaluable assets in this effort.

"ASPE is a strong proponent of evaluating and, where appropriate, revising current pipe-sizing requirements in model codes to ensure system

efficiency while protecting public health and safety," said Jim Kendzel, executive director of ASPE. "We look forward to working with IAPMO's members to address this increasingly important need for our industry."

Oregon's New "Reach Code" Utilizes IAPMO's Green Plumbing and Mechanical Code Supplement

Ontario, Calif. (July 8, 2011) – The State of Oregon has adopted a first-of-its-kind "Reach Code," a set of optional construction standards designed to increase the efficiency of buildings above the mandatory statewide building code, provisions of which come from IAPMO's Green Plumbing and Mechanical Code Supplement (GPMCS).

The "Reach Code," established in Senate Bill 79 (2009), requires the State of Oregon Building Codes Division to adopt a code encompassing construction methods and technology designed to increase energy and water efficiency over the mandatory codes for builders that choose to incorporate them. Chapter 7 of the code, "Water Resource Conservation and Efficiency," is based upon the 2010 IAPMO Green Plumbing and Mechanical Code Supplement, a tool designed to be used as an overlay to any building code to provide code officials with comprehensive, progressive and enforceable green provisions toward sustainable construction practices. The inclusion of the water efficiency provisions of the GPMCS into the Oregon Reach Code ensures that they are consistent with the requirements of the Oregon Plumbing Specialty Code, which is based upon the IAPMO Uniform Plumbing Code. The IAPMO GPMCS was explicitly developed to work seamlessly with the Uniform Plumbing Code while maintaining performance, health and safety.

"The state of Oregon's adoption of a 'Reach Code' utilizing IAPMO's Green Supplement is another example of this forward-looking document's appeal and value to jurisdictions worldwide seeking to embrace sustainable building practices," said Dwight Perkins, IAPMO senior director of Field Operations. "IAPMO is thrilled to have contributed to Oregon's progressive actions.



UPC and UMC Code Development Timeline for 2015 Code Cycle

May 7, 2012	Technical Committee Meetings
September 3, 2012	Call for Proposals
September 23-27, 2012	IAPMO Annual Education & Business Conference
January 3, 2013	Deadline for submission of proposals
March 25, 2013	Distribute proposals to committees
April 29-May 3, 2013	Technical Committee meetings
May 17, 2013	Initial ballot to Technical Committee
May 31, 2013	Receipt of initial ballots, Circulation of comments
June 14, 2013	Final closing date for ballots, including receipt of vote changes based on re-circulated comments
August 23, 2013	Distribution of Report on Proposals (ROP)
September 3, 2013	Call for Comments
September 29-October 3, 2013	IAPMO Annual Education and Business Conference, Assembly Consideration Session
January 3, 2014	Deadline for submission of comments
March 24, 2014	Distribute comments to committees (ROC Monograph)
April 28-May 2, 2014	Technical Committee meetings
May 16, 2014	Initial ballots to Technical Committees



May 30, 2014	Receipt of initial ballots, Circulation of comments
June 13, 2014	Final closing date for ballots, including receipt of vote changes based on re-circulated comments
August 22, 2014	Distribution of Report on Comments (ROC)
September 29-October 2, 2014	IAPMO Annual Education and Business Conference, Technical Meeting Convention
October 7, 2014	Ballot of Technical Committees on membership amendments from floor; two-thirds vote of approval required from the Technical Committee
October 14, 2014	Receipt of initial ballots, re-circulate comments to Technical Committee members
October 21, 2014	Final closing date of ballots and receipt of vote changes based on re-circulated comments
November 12-14, 2014	Standards Council Meeting
December 10, 2014	Deadline for notification of intent to file written petition to the Board of Directors
January 26, 2015	Board of Directors meet to address petitions



Plastic Pipe and Fittings

Technical Committee F17 on Plastic Piping Systems

The American Society of Testing and Materials (ASTM) Committee F17 on Plastic Piping Systems was formed in 1973. F17 currently has 520 members participating on 18 technical subcommittees that are responsible for 180 approved standards for plastic pipe and fittings. 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 F17 Technical Sub-Committees:

- F17.10 Fittings
- F17.11 Composite
- F17.20 Joining
- F17.25 Vinyl Based Pipe
- F17.26 Olefin Based Pipe
- F17.38 ISO/TC 138
- F17.40 Test Methods
- F17.60 Gas
- F17.61 Water
- F17.62 Sewer
- F17.63 DWV
- F17.65 Land Drainage
- F17.67 Trenchless Plastic Pipeline Technology

Key ASTM F17 Documents:

- D1785 Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120
- D2513 Standard Specification for Thermoplastic Gas Pressure Pipe, Tubing, and Fittings
- F876 Standard Specification for Crosslinked Polyethylene (PEX) Tubing
- F1216 Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube

- F1281 Standard Specification for Crosslinked Polyethylene/Aluminum/Crosslinked Polyethylene (PEX-AL-PEX) Pressure Pipe

Cast Iron Pipe and fittings

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

This specification 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. The cast iron shall be produced by an established commercial method that provides control over chemical and physical properties. Castings shall be sound, true to pattern, and of compact close grain that permits drilling and cutting by ordinary methods and its interior surface shall be reasonably smooth and free from defects. Ferrous scrap, pig iron, and any recycled ferrous material to be used in the melting operation shall be screened for radioactivity. Tension test shall include breaking load, machined diameter, and tensile strength. Chemical test shall conform to the chemical composition requirements prescribed for phosphorous, sulfur, chromium, titanium, aluminum, lead, and carbon equivalent. Dimension requirements for hub, spigot, barrel, grooves, water seal and trap, and threads of the pipe and fittings are detailed. The pipe and fittings shall be uniformly coated with a material suitable for the purpose.

ASTM C1277 – 11 Standard Specification for Shielded Couplings Joining Hubless Cast Iron Soil Pipe and Fittings

This specification covers the materials and testing of shield hubless couplings to join hubless cast iron soil pipe and fittings. Gaskets shall comply with the required physical and chemical properties, dimensions, and material specifications. The rubber gasket shall conform to the required physical requirements such as tensile strength, elongation, durometer, accelerated aging, compression set, oil immersion, ozone cracking, tear resistance, and water absorption. The shield and clamp assembly shall be made of material conforming to the requirements such as tensile strength and hardness. All parts shall be made of 300 series stainless steel, namely: Type 301; Type 304; Type 300; Type 301; and Type 305. The material shall also undergo physical tests like



deflection, shear and unstrained hydrostatic tests.

ASTM C564 – 11 Standard Specification for Rubber Gaskets for Cast Iron Soil Pipe and Fittings

This specification covers preformed rubber gaskets used to seal joints in cast iron soil pipe and fittings. Gaskets shall be made of a properly vulcanized virgin rubber as the sole elastomer with no scrap or reclaim. Gaskets shall conform to the required physical properties such as hardness, elongation, tensile strength, tear strength and compression.

ASTM C1563 – 08 Standard Test Method for Gaskets for Use in Connection with Hub and Spigot Cast Iron Soil Pipe and Fittings for Sanitary Drain, Waste, Vent and Storm Piping Applications

This test method covers the standard material criteria and test method for compression gaskets used in joining hub and spigot cast iron soil pipe and fittings for sanitary drain, waste, vent, and storm piping applications.

ASTM A888 – 11 Standard Specification for Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications

This specification covers hubless cast iron soil pipe and fittings for use in gravity flow applications. These pipe and fittings are intended for non-pressure applications, as the selection of the proper size for sanitary drain, waste, vent, and storm drain systems allows free air space for gravity drainage.

ASTM C1540 – 11 Standard Specification for Heavy Duty Shielded Couplings Joining Hubless Cast Iron Soil Pipe Fittings

This specification covers the performance evaluation of heavy duty shielded couplings to join hubless cast iron soil pipe fittings. Physical properties of all stainless steel and gaskets shall comply with the specified values. Requirements for the elastomeric gasket, clamp assembly, and couplings such as coupling width are detailed.

ASTM A1056 – 08 Standard Specification for Cast Iron Couplings Used for Joining Hubless Cast Iron Soil Pipe and Fittings

This specification covers the materials and testing of cast iron couplings for joining hubless cast iron soil pipe and fittings for sizes 1 ½ to 10 in. 1.2 It is the purpose of this specification to furnish information as to the characteristics of a particular sleeve type coupling when applied to cast iron soil pipe and fittings manufactured in accordance with the Specification.



Edinburgh Welcomes the World Plumbing Conference

The historic city of Edinburgh , capital city of Scotland , looks forward to welcoming representatives of the worldwide plumbing industry for the 9th World Plumbing Conference which will take place in the city from 7-11 September 2011

The event, being organised by World Plumbing Council member organisation SNIPEF, promises to be an event to be remembered and we hope to see large numbers from the UK and overseas gathering in our city. SNIPEF has been an active participant at previous World Plumbing Conferences with groups of members and their spouses participating in all of the triennial events since London in 1990.

Timed to take place shortly after the end of the Edinburgh International Festival (and Edinburgh Tattoo) the Conference will contain two full days of conference sessions with an interesting mix of top class speakers and social and networking opportunities including a Welcome to Edinburgh Dinner, an exclusive Reception in Edinburgh Castle (hosted by SNIPEF Edinburgh and District Branch in celebration of its 100th birthday) and a spectacular Gala Dinner.

Scotland, Northern Ireland and the other countries offer many touring opportunities for before or after the Conference.

World Plumbing Conferences are unique occasions and we extend a warm Scottish welcome to all involved in today's plumbing industry to join us in Edinburgh in September 2011.

For more information on the conference go to: <http://www.wpc2011.co.uk/Welcome-to-Edinburgh>





ASME A112. Standards Committee Meeting Phoenix, AZ

ASME Board on Standardization – ASME has initiated sector scorecards to help create goals for promoting standards and expanding the volunteer demographic. One way ASME is looking to enhance membership is encouraging committee members to invite local professors, students, and/or companies to attend the committee meetings. ASME is also seeking volunteers to give presentations to local schools or companies in order to raise awareness of the importance of standards among students and industry. ASME does have premade presentations that can be revised by individual members. ASME also encourages any committee members to submit articles or presentations about new technologies and the use of standards in industry.

In regards to helping current committee members, ASME has created a handbook to provide a convenient easy-to-use reference that defines the roles and responsibilities of volunteers and staff as well as providing an overview of the standards development process. ASME has also established a trail program in order to provide Professional Development Hours for project team meetings. An attendance list of members present during a project team meeting, including the duration of the meeting, will be taken and placed in meeting minutes in order for members to obtain PDHs for their committee participation.

Another item ASME is working on is creating college curriculum that would give students a better understanding of how standards are used within industry (i.e. how multiple standards could be used to design a component or whole system such as a car).

Floor Drains – The committee plans to revise this standard and remove trench drain requirements from the floor drain standard and create a new standard for trench drains. The committee has also formed A112.6.8 to be based only on trench drains.

Siphonic Roof Drains – A proposed change to the UPC was approved to support IAPMO ROP item 189 as modified to include the ASME A112.6.9. **“1109.1 Design Criteria.** A siphonic roof drainage system shall be designed in accordance with ASPE 45. Siphonic roof drains shall be in accordance with ASME A112.6.9. The latest consensus standard A112.6.9 should be referenced since siphonic roof drain systems are currently recognized by the code in chapter 3 and chapter/table 14.”

Suction Fittings for Whirlpools, Spas & Hot tub – It has been decided by ASME that APSP would be better equipped for handling Pools and Spas and should maintain the ASME A112.19.8 standard. Currently, APSP is creating an identical document to the latest ASME A112.19.8 standard including both addenda and plan to publish it within the next several months. The recommendation from ASME is to withdraw the ASME A112.9.8 standard and give control to APSP after the APSP document is ANSI approved and ready for publishing.

PIR 02-20 – Penal Ware Requirements – When this PIR was created discussions were held to incorporate these type of requirements within A112.9.2 and/or A112.19.3. However, during a teleconference it was decided these requirements go beyond fixtures and do not belong in either standard. At the last meeting it was decided that the staff secretary would contact the ASTM F33 Detention and Correctional Facilities committee staff manager, Joseph Hugo about their work on this item. He recommended working with subcommittee, F33.04 on Detention Hardware or subcommittee F33.05 Furnishing and Equipment about the possibility of creating a joint standard. Currently, there are no projects in regards to PIR 02-20 under the ASTM F33 committee. The A112 committee feels the item should not be handed off to ASTM but would be willing to approve of a joint document.



Standard 188P Progress:

In June of 2010 at the ASHRAE Annual Conference in Albuquerque, SPC188 unanimously voted Standard 188P out of committee for a public review. With the endorsement of Standards Committee the ASHRAE Board of Directors voted to expedite the draft for review which commenced on October 1, 2010.

The public review feedback was quite valuable to the Committee. With comments in hand, the Committee voted to revise Standard 188P in response to the comments, and then publish for a second review. The Committee worked hard on the revisions during the January Las Vegas Conference, and is currently finalizing the standard.

Bill McCoy, Acting Chair of SPC188, wishes to acknowledge the diligent work of all of the members of the committee, the input of the many commenters, and the editing by the Manager of Standards and ASHRAE staff for their efforts in moving this standard toward completion.

The ASHRAE Standards Committee has asked SPC188 to complete their work on the standard at the earliest opportunity. Part of this involved realigning the cognizant committees assigned to SPC188. The Standards Committee reaffirmed the Environmental Health Committee as the lead committee, and formalized TC 3.6 and TC 6.6 as co-cognizant.

With the membership reinforced, Standards also assigned SPC188 to undertake the task of updating Guideline 12-2000 "Minimizing the Risk of Legionellosis Associated with Building Water Systems". In Orlando, TC3.6 had voted to recommend to Standards Committee that Guideline 12 be opened for review as part of the progress made in crafting Standard 188P. This will take place after the work for Standard 188P. With the membership reinforced, Standards also assigned SPC188 to undertake the task of updating Guideline 12-2000 "Minimizing the Risk of Legionellosis Associated with Building Water Systems". In Orlando, TC3.6 had voted to

recommend to Standards Committee that Guideline 12 be opened for review as part of the progress made in crafting Standard 188P. This will take place after the work for Standard 188P is complete.

ASHRAE Conference Brings Together Industry Professionals

Atlanta – Perspectives on design styles and experiences from around the world were shared by nearly 2,000 built environment industry professionals at ASHRAE's 2011 Annual Conference. The theme of the Conference, Sustainability Knows No Borders, highlighted the international reach of ASHRAE's membership.

Some 1,690 people attended the Conference, held June 26-29, in Montreal, Quebec. Attendance was higher than the last three ASHRAE annual conferences, which took place in Albuquerque, Salt Lake City and Louisville.

The ASHRAE Conference offered a technical program with nearly 300 presentations, nine educational courses and numerous social events. The meeting also featured nearly 400 meetings of technical, standards and standing committees, developing guidance for the future of the industry and ASHRAE. The Plenary session, where nearly 60 members were honored for their service to ASHRAE, also served as the platform for Presidential member Lynn G. Bellenger's final address to the Society as ASRAE president.

Technical program highlights included several sessions that provided new applications and current practices, such as: case studies of new buildings without commissioning, using building energy information in a smart grid, selecting fans for minimum energy usage, emerging wireless technologies for HVAC&R applications, improving performance of refrigeration systems, back to basics on airflow in unitary systems, energy recovery issues in dedicated outdoor-air systems, unique applications of photovoltaic systems, applications of high temperature cooling and low temperature heating and HVAC&R design checklists that work. As usual, sessions on ground source heat pumps and radiant cooling systems drew large audiences.



Net zero energy-related sessions were the highest-attended, especially methodologies for determining environmental impacts of buildings, renewable energy technologies for achieving net-zero energy design, challenges in making green buildings a way of life, design strategies for net-zero energy residential buildings, combined heat and power for net zero energy buildings, and alternate heating, cooling and domestic water heating technologies to reduce building energy usage.

Also offered were two Professional Development Seminars and seven short courses from the ASHRAE Learning Institute. The most popular courses were Advanced High-Performance Building Design; Energy Management in New and Existing Buildings; and Basics of High-Performance Building Design.

Top selling publications included Standard 189.1-2009, Standard for the Design of High-Performance, Green Buildings; Standard 62.1-2010, Ventilation for Acceptable Indoor Air Quality; and the 2011 Annual Conference pre-prints CD, which contains all papers presented at the conference.

Ron Jarnagin took office as the Society's 2011-2012 president. His theme for the year, Sustaining ASHRAE through Leadership, focuses on developing future leadership, building the Society's global presence and strengthening the industry.

Additionally, six students from Polytechnique de Montréal, along with members of the Montreal Chapter, are working to improve the quality of life at Accueil Bonneau, a local homeless shelter, as part of ASHRAE's Sustainable Footprint project. The project is intended to leave behind a lasting sustainable footprint in the cities where the Society's conferences are held. The members hope to reduce operating expenses of the shelter through the overall design and commissioning of a domestic water heating solar system which will significantly reduce costs of water heating.

Fall Education Courses Set

Three new courses related to data center efficiency and ASHRAE standards on energy efficiency and high-performance building design are part of the 12 online professional development courses being offered this fall by ASHRAE through the ASHRAE Learning Institute (ALI).

ALI courses provide professional development through in-depth information that is timely, practical and advanced beyond a fundamental level.

The online courses allow attendees to "log in to learn" from anywhere with an Internet connection. Course participants earn continuing education credits for each seminar completed. Courses are instructor-led, drawing upon professional knowledge of leading practitioners.

The courses are:

- Basics of High-Performance Building Design, Sept. 19
- Advanced High-Performance Building Design, Sept 21
- Fundamental Requirements of Standard 62.1-2010, Ventilation for Acceptable Indoor Air Quality, Sept. 26
- Complying with Standard 90.1-2010: HVAC/Mechanical, Energy Standard for Buildings Except Low-Rise Residential Buildings, Sept. 29
- Complying with Standard 90.1-2010: Envelope/Lighting, Oct. 3
- Healthcare Facilities: Best Practice Design, Oct. 31
- Healthcare Facilities: Best Practice Applications, Nov. 2
- Evaluating the Performance of LEED®-Certified Buildings, Nov. 7
- Project Management for Improved IAQ, Nov. 9
- Data Center Energy Efficiency, Part 1, Oct. 10 and Part 2, Oct. 12
- Using Standard 90.1 to Meet LEED Requirements, Part 1, Oct. 17 and Part 2 Oct. 19



- Implementing Standard 189.1, Standard for the Design of High-Performance, Green Buildings Except Low-Rise Residential Buildings, Part 1, Oct. 24 and Part 2, Oct. 26

For registration costs and to register, visit www.ashrae.org/online courses. Site licenses are available to organizations that will be having five or more seminar participants.

For more information, e-mail edu@ashrae.org or call 678-539-1146.

ASHRAE Installs New Officers, Directors

MONTREAL – ASHRAE installed new officers and directors at its 2011 Annual Meeting held here June 25-29.

The new president is Ronald “Ron” Jarnagin, staff scientist, Pacific Northwest National Laboratory, Richland, Wash. His presidential theme is Sustaining ASHRAE through Leadership.

Other officers installed for a one-year term are:

- President-Elect: Thomas “Tom” Watson, P.E., Fellow Life Member, chief engineer, McQuay International, Staunton, VA
- Treasurer: William “Bill” Bahnfleth, Ph.D., P.E., Fellow ASHRAE, professor, The Pennsylvania State University, University Park, Pa.
- Vice President: Constantinos A. Balaras, Ph.D., P.E., research director at the Institute for Environmental Research and Sustainable Development, National Observatory of Athens, Greece
- Vice President: Ross D. Montgomery, P.E. ASHRAE-Certified Building Energy Modeling, Building Energy Assessment and Commissioning Process Management Professional, owner, Quality Systems and Technology, Inc., Palmetto, Fla

- Vice President: T. David Underwood, P.Eng., Fellow Life Member, ASHRAE-Certified Commissioning Process Management Professional, retired, resides in Oakville, Ontario, Canada
- Vice president: Timothy G. Wentz, P.E. Fellow ASHRAE, ASHRAE-Certified High Performance Building Design Professional, Associate professor, University of Nebraska-Lincoln.