• Ron George Design & Consulting • 3525 N. Dixie Hwy., Monroe, Michigan 48162 •

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Code Pipeline

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Code Requirements for Barrier-Free Fixture Traps and Supply Covers

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

There seems to be some confusion over code requirements for insulated covers for barrier free fixture traps and fixture supplies. We will begin by explaining why they are required, and we will examine the history of the Americans with Disabilities Act Accessibility Guidelines (ADAAG) for Buildings and Facilities.

History of the Americans with Disabilities Act (ADA) and ANSI A117.1

In 1959, the President's Committee on Employment of the Physically Handicapped and the National Society for Crippled Children co-sponsored the development of ANSI A117.1, the first national standard for accessibility. The technical provisions of ANSI A117.1 were intended for "the design and construction of new buildings and facilities," as well as for "the remodeling, alteration and rehabilitation of existing buildings." These provisions described how features should be designed and installed and included the requirements for exposed pipes and surfaces at barrier-free fixtures.

ANSI A117.1 was first published in 1961 and reaffirmed without changes in 1971. A completely new and more comprehensive version was published in 1980 and later editions were published in 1986, 1992, 1998 and 2003. The next revision, the 2008 edition, is due out soon.

The technical information in ANSI A117.1 was originally largely based on the science dealing with measurement of the size, weight and proportions of the human body, ergonomics and human performance data. The standard did not include scoping provisions, which describe where accessibility is appropriate, when it is required and what features of a building, facility or site must be accessible.

A117.1 has served as the basis for most of the accessibility standards subsequently adopted by federal and state governments. Until it was included in a 1990 federal law titled the Americans with Disabilities Act (ADA), it was a voluntary standard. The technical requirements of the

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standard were quickly referenced in the model building codes and by several state and local agencies that regulate the design and construction of buildings.

The ADA is the landmark civil rights law that utilized ANSI A117.1 to help identify and prohibit discrimination on the basis of disability. The ADA prohibits discrimination in employment, telecommunications, transportation, access to facilities and programs provided by state and local government entities and access to the goods and services provided by places of public accommodation, such as lodging, health and recreation facilities. People who design and construct buildings and facilities are responsible under the ADA to make them accessible to and usable by people with disabilities.

In 1987, the Council of American Building Officials (CABO) was the umbrella organization for BOCA, ICBO and SBCCI and assumed the position of secretariat, or permanent administrator, for CABO/ANSI A117.1 and began to develop the standard with language more compatible with the model building code format and language. Recently, the International Code Council (ICC) became secretariat of the standard, and it became known as ICC/ANSI A117.1 - Accessible and Usable Buildings and Facilities. This allows compatibility and correlation of the document with a model building code.

The International Building Code (IBC) Chapter 1101.2 states:

1101.2 Design. *"Buildings and facilities shall be designed and constructed to be accessible in accordance with this code and ICC A117.1."*

This means that materials used for accessible products need to comply with the building code or referenced code. The standard has the following language:

606.5 Exposed Pipes and Surfaces. *"Water supply and drain pipes under lavatories and sinks shall be insulated or otherwise configured to protect against contact. There shall be no sharp or abrasive surfaces under lavatories and sinks."*

This is very similar to the ADAAG language, but those guidelines do not specifically address hot water pipes. The language in ANSI A117.1 is intended to protect wheelchair-bound people from being injured from contact with sharp edges under the sink or fixture or by contact with a hot or cold water supply pipe. This is especially important, as paralyzed or disabled people in wheelchairs tend to bruise more easily. An adult weighing 180 to 200 pounds could incur a pretty serious injury if he or she rolls up to a sink and bangs a knee or leg on a tailpiece, because the knee has to stop the forward momentum of the wheelchair and the weight of an adult body.

Section 310 of the International Plumbing Code (IPC) addresses washroom and toilet room requirements. Paragraph 310.3 of this section states:

310.3 Interior finish. *"Interior finish surfaces of toilet rooms shall comply with the International Building Code."*

The plumbing code language requires compliance of these products with the building code requirements. The IBC makes several references to requirements for flame and smoke spread requirements for these insulating or protective coverings in public restrooms. ASTM E-84 is the flame and smoke test for exposed materials in public bathrooms. IBC section 803 covers interior finishes and states.

803.8 Insulation. *"Thermal and acoustical insulation shall comply with Section 719."*

IBC section 719, Thermal and Sound-Insulating Materials, has several sections that deal with insulating materials, and they all reference the ASTM E-84 flame and smoke spread test with the following language:

719.1 General. *"Insulating materials, including facings such as vapor retarders and vapor-permeable membranes, similar coverings and all layers of single and multilayer reflective foil insulations, shall comply with the requirements of this section. Where a flame spread index or a smoke-developed index is specified in this section, such index shall be determined in accordance with ASTM E 84. Any material that is subject to an increase in flame spread index or smoke-developed index beyond the limits herein established through the effects of age, moisture, or other atmospheric conditions shall not be permitted.*

Exceptions:

1. *Fiberboard insulation shall comply with Chapter 23.*
2. *Foam plastic insulation shall comply with Chapter 26.*
3. *Duct and pipe insulation and duct and pipe coverings and linings in plenums shall comply with the International Mechanical Code."*

719.3 Exposed installation. *"Insulating materials, where exposed as installed in buildings of any type of construction, shall have a flame spread index of not more than 25 and a smoke-developed index of not more than 450."*

719.7 Insulation and covering on pipe and tubing. *"Insulation and covering on pipe and tubing shall have a flame spread index of not more than 25 and a smoke-developed index of not more than 450."*

Exception: "Insulation and covering on pipe and tubing installed in plenums shall comply with the International Mechanical Code."

The International Mechanical Code (IMC) requires all exposed surfaces in HVAC return air plenums to meet flame spread and smoke generation requirements of 25/50. The International Building Code (IBC) chapter 26 has the following definition:

Approved is a plastic that meets the flame spread and smoke generation requirements of the above section in accordance with ASTM-E84.

So what is the big deal? Well, it appears there is confusion

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among manufacturers that sell products that do not conform to flame and smoke spread requirements for insulated trap covers for barrier free fixtures. Many of these trap covers are imports. There may also be some domestic manufacturers that do not meet the codes' requirements. An increasing number of plumbing and building inspectors have been enforcing the codes, which has caused some manufacturers to begin proposing code changes and hire professional code consultants to lower the limits and eliminate smoke development requirements so that their products will not have to be modified with a self-extinguishing chemical in the plastic resin. The non-conforming manufacturer wanted to propose a fire test "ASTM D635", which is only to be used for testing the flame spread on light transmitting plastics in florescent light fixtures. There is no smoke development test in ASTM D635.

The problem is that these manufacturers are proposing a change to the plumbing code, although these products are clearly covered by the building code. A code change dealing with fire resistive materials would create a conflict between the building code and the plumbing code, and it would lower the bar for fire safety.

Many plastic trap covers are not self-extinguishing; they produce large quantities of toxic, acrid smoke. In most cases, these fires are limited to the toilet room, but, in some cases, they have resulted in major loss fires. In practically every case, a facility must be shut down for the day or for several days while it is cleaned and decontaminated. In most cases it is the smoke that kills and not the fire.

Flame spread/smoke developed ratings

Insulation flame spread/smoke developed ratings are determined by the codes. The International Building Code (IBC), Section 719 and NFPA 5000 Building Construction and Safety Code both require the maximum ratings to be 25 flame spread index and 450 smoke-development index. If the pipe insulation is exposed in an air plenum, the smoke-developed index is limited to 50.

During the recent IPC hearings in Palm Springs, California, the IPC committee denied code change P-14 and reaffirmed in their testimony that fixture trap and supply covers that are already covered in the code. This means they should meet ASTM E-84 flame and smoke testing standards, the applicable standards for barrier free fixtures insulated covers as covered in the building code and that ASTM E-84 should apply, with a 25 flame spread index and a 450 smoke-developed index.

The IPC committee disapproved a proposed code change that included language to utilize ASTM D635 as a fire test for insulated trap covers. ASTM D635 standard specifically states that it is for polymeric plastics for parts and components inside devices and ASTM D635 is limited to light- transmitting products only (fluorescent light panels). The standard is not applicable to plastics used in other building applications, and it does not address smoke generation.

The Steiner tunnel fire test method for surface flame spread and smoke development remains the traditional test used to assess fire performance of interior finish materials. Developed by Al Steiner for testing building materials such as wood or gypsum board at Underwriters Laboratories in 1944 the Steiner tunnel test has been standardized by the major North American standards writing organizations and widely adopted by every North American building and fire code.

In the test, a specimen 24 ft. x 1ft. 10 in. x 6 in. thick (7.3 m x 0.56 m, up to 0.15 m thick), either in one unbroken length or in separate sections joined end to end, is mounted face downwards so as to form the roof of a horizontal tunnel 12 in. (305 mm) high. The fire source (two gas burners) ignites the sample from below with an 89-kilowatt intensity, and the combustion products are carried away by a controlled linear air velocity of exactly 240 ft./min. (73 m/min.)

The normal output is a flame-spread index (FSI) and a smoke-developed index (SDI). Flame spread is assessed visually by the progression of the flame front, while measurements of optical smoke density at the tunnel outlet determine the smoke obscuration. This information is used to plot time-based graphs of flame-spread distance and of optical density. FSI and SDI are then calculated based on the ratio between the areas under the curves for the material being tested and those for a cementitious board (assigned FSI and SDI values of 0) and for red oak flooring (assigned FSI and SDI values of 100).

In recent years, new measuring techniques have been developed to describe the hazards from fire-generated particles in the smoke. These new techniques use smoke release rate data from the burning material to estimate the light obscuration in a fire-affected room. New instrumentation has recently been added to the Steiner tunnel test for measuring the smoke release rate.

Plumbing designers and engineers need to select ADA fixture trap and supply materials based on the recognized industry standard, ASTM E-84. The IBC and the NFPA both require the ASTM E-84 standard to be used as the basis for flame and smoke development for pipe insulation and equipment covering.

For use in just about every jurisdiction in the United States, the ASTM E-84 listing and labeling requirement should apply because of the requirements in the model building codes (IBC and NFPA 5000).

I hope this clears up some of the confusion regarding trap covers.

Ron George specializes in plumbing, piping, fire protection and hvac design. He also provides plumbing/mechanical code and product standard consulting services and forensic investigations of mechanical system failures.◦

2008 International Code Council Annual Conferences, Business Meeting & Final Action Hearings

From: *ICC eNews*

What Happened at Conference

Adolf A. Zubia, Fire Chief for the City of Las Cruces, New Mexico, was elected President of the International Code Council Board of Directors during yesterday's Annual Business Meeting. A member of the ICC Board since 2003, Zubia oversees 122 personnel and a $10.5 million annual budget for the City of Las Cruces. He is Chair of the Fire and Life Safety Section of the International Association of Fire Chiefs, and Immediate Past President of the New Mexico Fire Chiefs Association.

Ronald L. Lynn, Building Official and Director of Development Services for Clark County, Nevada, was elected Vice President of the Board. Lynn also serves on the International Accreditation Service Board of Directors and acts as a liaison between the two boards. A Certified Building Official, Lynn is Chairman of the Nevada Organization of Building Officials, Nevada Earthquake Safety Council, and the Western States Seismic Policy Council's Architecture, Engineering and Construction Committee.

James L. Brothers, Director of the Decatur, Alabama, Building Department, was elected Secretary/Treasurer of the Board. Alabama's Code Official of the Year in 1997, Brothers serves on the Legislative and Codes Advisory Council for the American Society of Interior Design and is Past President of the North Alabama Code Officials Association and the Code Officials Association of Alabama.

John Darnall and John LaTorra were re-elected to three-year terms on the Board. Darnall is Assistant Director of Development Services for the City of Tumwater, Washington. LaTorra serves as Building and Inspection Manager for Redwood City, California.

Other Board members elected to three-year terms were: Patrick Parsley, Building Official for the City of Fairmont, Minnesota; Ravi Shah, Director of Urban Development for the City of Carrollton, Texas; and Cindy Davis, Building Official and Zoning Officer for Butler Township, Pennsylvania.

Voting members approved Amendment 1-2008 to the Code Council Bylaws. The measure would provide six seats on the Board of Directors that would be elected from geographical areas of the country. Membership did not approve proposed bylaw changes to add two public interest seats to the Board.◦

Code Hearings Feature Major Issues, Dramatic Moments

From: *ICC News Releases*
http://www.iccsafe.org/news/nr/releases.html

International Code Council members debated and voted on code change proposals shaping the future of building safety and fire prevention during the organization's recent Final Action Hearings. The hundreds of approved code changes will be included in the 2009 version of the *International Codes*, used to guide construction in all fifty states and Washington, D.C.

"We are exploring improvements in the areas of structural and fire safety alongside sustainable and energy efficient building, all of which will have enormous impact on virtually every aspect of safety in the built environment," said Code Council President Adolf Zubia, Fire Chief for Las Cruces, N.M.

Among the major changes approved:

- Fire sprinklers are required in all new one- and two-family residences beginning January 1, 2011.
- Fire sprinklers are required in al new town homes.
- Carbon monoxide detectors are required in homes with attached garages or fuel-fired equipment such as gas furnaces, gas stoves and gas water heaters.
- A new standard, ANSI/APSP-7-06, brings the I-Codes in line with the Virginia Graeme Baker Federal Pool and Spa Safety Act of 2007. It addresses suction entrapment avoidance in swimming pools, wading pools, spas, hot tubs and catch basins.
- For skyscrapers, buildings greater than 420 feet in height, an additional stairwell is required to assist firefighter access to upper floors. The additional stairwell is not required if the building includes special elevators that can be used to evacuate occupants during an emergency.
- Members did not approve the comprehensive energy package in EC-14 purporting a 30% increase in energy efficiency. However several energy efficiency-related changes were approved, including:
  - A requirement to install programmable thermostats in new homes and buildings with forced air furnaces.
  - High-efficiency light bulbs required in at least 50% of permanent lighting fixtures in new homes.
  - Maximum fenestration u-factors are lowered in warmer climates to reduce the amount of heat loss or gain through windows and doors to lower energy costs during cooling periods.
  - An increase in insulation R-values for walls, floors and basements in cold climates to achieve heating and cooling savings.

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, countries and states choose the International Codes, building safety codes developed by the International Code Council.◦

Question and Answer:
Water Heater Anode Rods

By: Ron George, CIPE, CPD

Question

I have been looking for anode rods for my water heater. What does the anode rod do? I'm wondering about compatibility with my water heater. Is there a special size needed for a given water heater? Why don't they sell these at any hardware stores? They seem to be almost impossible to find.

Are anode rods universal? How are they attached to the hex nut? I'd like to know all I can about what I'm getting myself into. Is this a major project?

Answer

An anode rod is a metal rod made of aluminum or magnesium cast around a steel wire core that terminates with a hexagon head bushing that screws into a fitting in the top of your water heater. For residential-type water heaters, all anodes are the same ¾ inch diameter. If you have a low-boy a short water heater, you might have to shorten it. It can be easily shortened by cutting it off to the appropriate length with a hack saw.

The purpose of installing a magnesium rod in a steel tank is to extend the life of the tank. Steel tanks will corrode when they are exposed to water. Most residential water heaters have either a glass lining or epoxy lining. The glass linings can crack and the metal threads can be exposed to the water at tank connections and at imperfections in the lining. If you insert a magnesium or aluminum anode rod into the tank the rod will sacrifice itself or corrode before any of the steel tank corrodes as long as the water is in contact with the rod and the steel tank and the two metals are in contact with each other at the same time. This is know as a corrosion cell where the magnesium rod acts as an anode and the steel tank is a more noble metal on the electromotive series of metals and it acts as the cathode. A small electrical current develops flowing from the anode to the cathode and the corrosion occurs where the current leaves the anode causing the less noble metal (Magnesium rod) to corrode first. The entire anode will corrode away then the exposed parts of the steel tank corrode. This is why it is important to check the anode rod at regular intervals (maybe every 5 years) to assure the tank will not corrode.

The reason not many hardware stores carry magnesium rods is not many people are aware of what anode rods do and typically no one checks the rods, so they corrode away and then the tank corrodes to the point where it leaks. Then the hardware stores get to sell a new water heater instead of just an anode rod. This is really an easy job and can extend the life of a water heater significantly.◦

IAPMO Standards Council Issues TIA UMC-019-06, Approves Extracted ASHRAE 34-2007 Refrigeration Table

From: *IAPMO Newsz*

The IAPMO Standards Council on December 2nd issued two decisions. One approves Tentative Interim Amendment UMC-019-06 to the 2006 *Uniform Mechanical Code (UMC)* and another approves the extraction of a refrigerant table in the *UMC*.

The decision on TIA UMC-019-06 results in new code language to the 2006 and 2009 editions of the *UMC* regarding Heating and Cooling Air Systems and Air Filters. These important requirements specify the locations of return and outside-air openings to ensure indoor air quality inside occupied spaces. Much of the text has been relocated from Chapter 9 of the 2000 *UMC* for a more strategically located and comprehensive governance of heating and cooling air systems.

"The 2009 *UMC* is better than its previous editions because these requirements have been appropriately inserted in Chapter 3 as part of general regulations" said Adam Muliawan, mechanical code development administrator for IAPMO. "Therefore, these requirements do not apply to all heating and cooling air systems."

The TIA was balloted through the Mechanical Technical Committee in accordance with the Regulations Governing Committee Projects and received the necessary three-fourths majority support on both technical merit and emergency nature to establish the recommendation for issuance.

The Standards Council also voted favorably to approve the extraction of text from the 2007 edition of *ASHRAE 34*: Table 1, "Refrigerant Groups, Properties and Allowable Quantities." This updated table will replace the previous version as published in the 2006 edition of the *UMC*. The extracted text also includes footnotes regarding instances where no value is listed in the table.

In accordance with the Extract Guideline, the revised Table 11-1, as extracted from *ASHRAE 34*, will appear in the 2009 edition of the *UMC*. As the extract was processed pursuant to the Extract Guidelines, but outside of the regular revision process, Table 11-1 will include a reference bracket below the table title indicating that the material is extracted from *ASHRAE 34*.

To examine TIA UMC-019-06 or Table 11-1 in their entirety, and/or any other TIAs affecting Uniform Mechanical Code, visit: http://www.iapmo.org/Pages/TIADecisions.aspx.

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

IAPMO to Honor 'Greenest' Contractors

From: *IAPMO News*

At its 80th Annual Education and Business Conference, September 27-October 1, 2009, in San Diego, and all subsequent conferences, the International Association of Plumbing and Mechanical Officials (IAPMO) will award recognition to a Green Contractor of the Year.

The award will honor the IAPMO member contractor who best fulfills or symbolizes a commitment to environmental sustainability through his or her work in the plumbing and mechanical industries. It will be given in addition to IAPMO's long-standing annual honors, the Industry Person of the Year, Government Person of the Year and American Flag awards, and the George Kauffman Lifetime Achievement Award, given each year a worthy honoree is nominated and selected by the IAPMO Board of Directors.

"IAPMO has bee committed to green practices since the organization's inception more than eighty years ago," said Russ Chaney, executive director of IAPMO, "and now it's time to recognize those within our industry who share the same strong commitment to insuring one planet's future."

Green Contractor nominations should be presented to the Board through the Committee for Awareness and Understanding of a Sustainable Environment (C.A.U.S.E.), the Green Technical Committee or the Board itself, which will select the recipient at its summer meeting and present the award each year at conference. Nominations for both the Green Contractor and Kauffman awards will be accepted between January 1 and May 15, 2009.

While it is tradition to surprise the winners of the Government and Industry Persons of the Year and American Flag awards at conference, the winner of the Green Contractor award will be notified in advance to ensure he or she is present to accept the honor. Recipients of the award will be featured in IAPMO's publications, including: *Official* (magazine and the online), *Green Newsletter*, and *I-Connection*.◦

IAPMO R&T Lab Opens Electrical Laboratory

From: *IAPMO Press Release*

IAPMO R&T Lab, an independent testing, research and technical services lab for the plumbing and mechanical industries, has formally opened a new electrical laboratory to further enhance its already comprehensive list of testing capabilities.

Incorporating more than 1,300 square feet of the lab's ongoing expansion at the IAPMO Group World Headquarters in Ontario, California, the electrical laboratory features separate spaces for both wet and dry testing. Wet testing comprises all instances where there is direct interaction between water and the applicable electrical unit. These include a hots of plumbing products, such as hydro massage bathtubs or spas with stereos, LCD televisions and chromotherapy mood lighting built into the unit, electronic faucets, water softeners, submersible or non-submersible pumps, chlorinators, sprinkler controllers, pedicure spas, and bidet seats (washlet) with built in heaters, solenoid valves, electric water heaters, blowers and deodorizers.

The dry testing or burnout room houses the testing associated with scenarios of catastrophic failure. A third space, the ozone off-gas test room, will be completed soon for the testing of ozone generators to OSHA regulation.

"These ne testing capabilities represent another significant renewal of our commitment to serving our customers," said IAPMO R&T Labs Senior Director Ken Wijaya. "We have always been a partner with our clients; with no bureaucracy. The same will be true of the electrical lab."

Heading up the new laboratory as Manager, Electrical Testing is Tony Zhou, who has supervised construction of the lab since joining IAPMO R&T Labs earlier this year, following ten previous years with Underwriters Laboratories (UL), most recently as Senior Project Engineer. Zhou brings extensive experience in establishing testing infrastructure and facilities, training laboratory technicians and providing consultation to clients on compliance and other testing issues.

For more information on testing your products with IAPMO R&T Lab, call 909-472-4100 or visit www.iapmortl.org.◦

Number of ICC-ES PMG Listings Double

From: *Fall 2008*

Web: *http://www.icc-es-pmg.org/News*

Unico, Inc.; NVENT; Uponor North America; Spears Manufacturing Company; Roth Industries, Inc.; Cheil Industries, Inc.; The RectorSeal Corporation; DiversiTech Corporation; Duct Saddle, LLC; and John Guest, Ltd. are among plumbing, mechanical and fuel gas (PMG) product manufacturers boosting their business with ICC Evaluation Service, Inc.(r) (ICC-ES(r)) PMG evaluation reports.

"ICC-ES offers manufacturers rapid turn-around times for product listings that verify compliance with both codes and standards," said ICC-ES Director of Listing Programs Bernie Soesilo. "Another benefit of using ICC-ES PMG is that manufacturers can typically expect to pay up to 20-percent less, making it the more economical choice."

The ICC-ES PMG Listing Program provides proof for manufacturers to present to building departments and consumers that their approved products meet requirements in the mostly widely used codes and standards. Products are evaluated to meet the requirements of the International Plumbing, Mechanical, Residential and Fuel Gas Codes as well as the Uniform Plumbing and Mechanical Codes.

ICC-ES has achieved a 100 percent increase in the number of listings released under its new PMG listing program since June. Plumbing fixtures, ducts, air admittance valves, heating and cooling piping, and water piping are among the products listed.◦

Home Depot, Lowe's Agree to Penalties

From: *Ventura County Star*

Two national home improvement chains have agreed to pay more than $560,000 in civil penalties and other costs, and take other steps, to settle two civil law enforcement actions the Ventura County District Attorney's Office filed against them, officials said Monday. The civil complaints filed in Ventura County Superior Court alleged that Home Depot and Lowe's Inc. sold water heater installation services and charged customers for building permits that were never obtained.

From January 2003 to June 2007, Home Depot's four locations in the county sold 3,492 water heater installations and collected permit fees ranging from $14 to $71 per installation, but pulled fewer than 300 permits using the collected funds, according to the district attorney's Consumer and Environmental Protection Unit.

Between December 2003 and March 2007, the two Lowe's locations in the county sold 422 water heater installations and collected permit fees, but failed to pull permits in 86 instances and overcharged for the permits in 104 cases, officials said. The overcharges ranged from $1.04 to $40.50.

Without admitting or denying liability, each company agreed to be bound by a permanent injunction requiring adoption of policies to comply with the law. Each company also agreed to obtain all of the missing permits and, at its own expense, have installers do any necessary work to pass inspection.

Under the settlements, Home Depot will pay $415,320 and Lowe's will pay $150,000 in civil penalties and investigative costs and for educational programs about the importance of complying with building permit and inspection requirements.◦

The International Code Council – Evaluation Services has New Plumbing, Mechanical, Fuel Gas (PMG) Listing Program

From: *International Code Council News, Press Release*

The International Code Council has a new product evaluation services program. It is called ICC-ES Plumbing, Mechanical and Fuel Gas (PMG) listing program. The program was developed to provide to assist those who enforce codes in determining whether a plumbing, mechanical or fuel gas product complies not only with applicable product standards but also with applicable codes. The program is unique in that code compliance is not normally covered in listing programs. The ICC program will also include ongoing inspections to ensure that the manufacturing process for the approved product remains consistent. ICC has a website that includes information about their new program's application process, rules of procedure, listing criteria and the ICC-ES PMG Listing Mark. They welcome your comments and questions.◦

NSF Announces New Certification Services for PVC Water Main Pipe

From: *NSF Newsroom*
http://www.nsf.org/business/newsroom/

Recent requests from the plumbing industry have prompted NSF International to expand its services for Polyvinyl Chloride (PVC) water main piping products. NSF's new services evaluate and certify PVC pipes that meet UL 1285: Pipe and Couplings, PVC for Underground Fire Service's Performance Requirements. These devices include PVC and molecular oriented polyvinyl chloride (PVCO) pressure pipe, couplings and gaskets for use in underground fire service systems and connections to such systems.

NSF is also pleased to announce that Sanderson Pipe Corporation, a manufacturer of PVC pipe, is the first client to be certified to UL 1285: Pipe by NSF's Plumbing Program.

"Being the first PVC manufacturer to receive UL 1285 certification from NSF lets our customers know that we take safety very seriously," said Donald Finton, a Quality Control Manager, Sanderson Pipe Corporation. "It is important that our facility meets all requirements to ensure our customers receive the best pipe possible while conforming with the standards set forth in AWWA C900 and UL 1285."

Since the requirements of UL 1285 and AWWA C900: PVC Pressure Pipe and Fabricated Fittings, 4-inch through 12-inch, for Water Distribution standards are very similar, NSF can bundle these services to offer a listing to UL 1285, AWWA C900 and NSF 14: Plastics Piping System Components and Related Materials saving additional cost and time. These specifications include dimensions, testing, and toxicology to make sure pipe is sager for customers, as well as the environment.

"This listing service expansion will enable manufacturers of PVC piping to take advantage of the convenience of having one source for their plumbing, conduit and now water main pipe testing/certification needs," said Nasrin Kashefi, General Manager, NSF Plumbing Program.

NSF's listing program meets the listing requirements in the National Fire Protection Association (NFPA) 24: Standard for the Installation of Private Fire Service Mains and their Appurtenances. NSF is also a nationally recognized testing laboratory by the Occupational Safety and Health Administration for UL 1285.◦

Upcoming Events:

International Builders' Show
January 20-24, 2009
Las Vegas, NV
http://www.buildersshow.com/Home/

AHR Expo
January 26-28, 2009
Chicago, IL
http://www.ahrexpo.com/

2009 Codes Forum
March 23-25, 2009
New Orleans, LA
Sheraton New Orleans Hotel

Proposed Polyethylene Pipe Standard Under Development in ASTM International – Participation Sought

From: *ASTM News*

A proposed new standard under the jurisdiction of ASTM International Committee F17 on Plastic Piping Systems will be useful to the gas gathering and distribution industries. Subcommittee F17.11 on Composite is developing the proposed standard, WK21276, Specification for Polyethylene Pipe with a Co-Extruded Polyamide Inner and/or Outer Barrier Layer for Oil and Gas Applications.

According to Gene Palermo, Palermo Plastics Pipe Consulting and a member of F17, the type of piping covered in WK21276 is helpful to users in areas in which there are liquid hydrocarbons inside the polyethylene pipe or in the ground that would otherwise affect the performance of the polyethylene. "The barrier layer on the inside diameter and/or outside diameter prevents the liquid hydrocarbon from being absorbed by the PE pipe and affecting its strength," says Palermo. "We will have very stringent requirements for the PE material because of the demanding applications where the product will be used."

Interested parties, particularly those who would be potential end users of the pipe, are welcome to join the subcommittee in its development of WK21276.

For technical Information, contact Gene Palermo, Palermo Plastics Pipe Consulting, Friendsville,Tenn. (phone: 865-995-1156; gpalermo@plasticspipe.com). Committee F17 meets April 20-23, 2009, during the April committee week in Vancouver, British Columbia, Canada. For ASTM meeting or membership information, contact Robert Morgan, ASTM International.

New Publication on ASTM Standards for Welding Now Available

A new one-of-a-kind publication is now available from ASTM International. ASTM Standards for Welding (http://www.astm.org/BOOKSTORE/COMPS/211.htm) includes all 59 active ASTM International standards referenced by the American Welding Society: Structural Welding Code D1.1, which covers any type of welded structure made from the commonly used carbon and low-alloy steels.

ASTM Standards for Welding is an excellent companion for AWS Code D1.1, and provides the resources to guide and assist quality professionals, inspectors, supervisors and quality conscious engineers and managers with interpreting the specification and test methods used in the AWS industrial code.

Copies of ASTM Standards for Welding are available in print (540 pages, soft cover, 8.5" x 11"; ISBN: 978-0-8031-8000-0; stock #WELDING08) and on CD-ROM (ISBN: 978-0-8031-8001-7; stock WELDINGCD08) for $479. Contact ASTM Customer Service (phone: 610-832-9585; fax: 610-832-9555; service@astm.org) or visit www.astm.org.

Crimped Polyethylene Pipe Fittings

Plumbing systems installers using PEX and PE-RT polyethylene pipe will be the primary users of a new ASTM International standard approved by Committee F17 on Plastic Piping Systems. The new standard, F2735, Specification for Plastic Insert Fittings for SDR9 Cross-Linked Polyethylene (PEX) and Polyethylene of Raised Temperature (PE-RT) Tubing, is under the jurisdiction of Subcommittee F17.10 on Fittings.

"It occasionally happens that fittings are not crimped when they are connected to a pipe," says Peter J. Cook, technical services manager, IPEX Inc., and an F17 member. "The crimp ring is placed on the assembly, but through an oversight, the crimp is not actually made." When this happens, Cook notes, the uncrimped joint may pass an initial pressure test but will fail after a period of time under pressure.

ASTM F2735 provides instructions for the creation of a plastic fitting for PEX and PE-RT pipes that will result in a joint leaking during initial pressure tests unless it is properly crimped. The new standard is particularly concerned with pipe made in accordance with F876, Specification for Cross-Linked Polyethylene (PEX) Tubing, or F2623, Specification for Polyethylene of Raised Temperature (PE-RT) SDR 9 Tubing.◦

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Ron George Design & Consulting Services
3525 N. Dixie Hwy.
Monroe, MI 48162
Phone: 734-322-0225
Fax: 734-322-2949
Abby Schmeling: Editor
Website: www.rongeorgedesign.com
RGDC@rongeorgedesicn.com