



Green Newsletter
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IAPMO Hosts SRIBS Chinese Delegation



The International Association of Plumbing and Mechanical Officials (IAPMO) welcomed a six-person delegation from the Shanghai Research Institute of Building Sciences in China (SRIBS) for a tour of IAPMO's testing facilities and an introductory dialogue on potential future joint endeavors.

Founded in 1958 and designated as a state-run enterprise in 2001, SRIBS performs building technology research and inspections, and provides product testing and evaluation services to the Chinese building industry.

"SRIBS and IAPMO are very similar in the scope of services provided, but with different core strengths, so there is a great opportunity to learn from each other," said Dave Viola, director of Special Services for IAPMO, who led the discussion.

SRIBS was awarded a Chinese government contract to design and construct the 'Tomorrow House,' a residential project to serve as a model of sustainable building and construction at the 2010 World Exposition in Shanghai. The multi-layered eco-residence will incorporate several cornerstones of the "green" building movement, including natural ventilation, day lighting, solar energy, 3-R materials, a changeable building envelope and indoor gardens.

Yang Yong, SRIBS chief engineer, said he sees great potential for cooperation between the two organizations.

"We do similar work to IAPMO in China," he said. "In some areas we are not as advanced as the U.S., but the market is very lively, so things must be standardized more and more. We feel we can learn from IAPMO to do things better."

By 2015, the World Bank estimates half of all new building construction worldwide will take place in China. Yong said he feels SRIBS is positioned strongly in the building materials market, but sees room for improvement with regard to water quality and efficiency.

"We have a situation where quality control is of the utmost importance," he said. "In the U.S., water can be consumed directly from the pipe or hose. This is not so in China. We must do more filtration before drinking. Improving that quality is most important to our moving forward."

Work begins in earnest on the 'Tomorrow House' in January. IAPMO welcomes the opportunity to assist SRIBS in this very exciting project, according to Viola.

"It seems like a natural fit as they're pursuing a greater understanding of water quality and the plumbing side of building construction," he said. "And we look forward to sharing our knowledge of safe and sustainable plumbing, while benefiting from SRIBS' expertise in building sciences and energy efficiency."

IAPMO operates an inspections office in Beijing, China, and hopes to open a research and testing lab in the country soon. The permit could be approved as soon as January.

Atlanta Drying Out

Atlanta is being squeezed dry. 2007 is going on the state's books as one of its driest years, with only 20 inches of rainfall - half its usual amount. The city's major water source, Lake Lanier, is at its lowest level ever. Government officials have issued projections that the city could run out of water in just three months.

Residents are being urged to conserve, and outdoor watering has been banned. Attendants at the University of Georgia football games were even asked not to flush, but to leave the job to attendants. But as of yet, there has been no rationing, although some say the city may be forced to in the very near future.

The city is under heavy criticism, accused of rapid population growth without any regard for water conservation. Critics say the city has been very shortsighted. Michael Grunwald wrote an article in Time magazine saying "this drought was a national event transformed into a natural disaster by human folly."

In an interview with BBC news, Atlanta Mayor Shirley Franklin defended her city, saying, "Our population has increased by 9 percent. And our water withdrawal has decreased by 5 percent in the past five years." The city has approved \$1 billion to be spent on the city's aging water infrastructure. In November, the Atlanta Regional Commission launched a two-year project aimed at developing a 50-year growth plan. The plan is designed to focus on eco-friendly building, alternative energies, and water conservation.

The situation in Atlanta has been exasperated by the fact that Florida and Alabama also rely on water from Lake Lanier. The three states have been battling over water rights for more than two decades. Georgia has been fighting to keep more water, while Florida and Alabama have argued that the water is vital to their economy. Power plants, farms, industrial users, fisheries, and municipalities in both states depend on the water.

The Army Corps of Engineers, which controls the amount of water released, recently reduced the flow from the lake to Florida by 5 percent. The corps also said it wanted to temporarily cut the flow by 16 percent, until the drought had eased. The reduction could keep Atlanta supplied for another two years.

Florida initially agreed to the corps plan, but later sent a letter stating it opposed the cut. However, its objection may be overridden. The decision may depend on the Fish and Wildlife Services determination of whether or not federally protected mussels and fish could survive with the reduced flow. If approved, the plan could be implemented immediately.



Tax Credit for Energy Efficiency Expiring Soon

Time is running out to take advantage of the Energy Policy Act 2005 Federal Tax Credits. The credit for solar energy systems and energy home improvements made to primary residences will expire on Dec. 31. There is no pending legislation to extend or renew this program.

To read more about the available credits visit: http://energystar.gov/index.cfm?c=products.pr_tax_credits

DOE Increases Energy Efficiency Standards

The Department of Energy has increased the energy efficiency standards for residential furnaces and boilers. The Department estimates that these amended standards, which become effective in 2015, will save the equivalent of the total amount of energy consumed by 2.5 million American households in one year, or approximately 0.25 quadrillion (10¹⁵) British thermal units (Btus) of energy, over a period of 24 years [from 2015–2038].

To read the full press release: <http://www.energy.gov/news/5743.htm>

Plumbing Industry Helps Drought Stricken Town Conserve Water

If you turned on a faucet in Orme, Tenn., last month, chances are nothing would have come out. Over the summer, the town spring and reservoir dried up, forcing the town to buy its water from neighboring towns. Three or four days out of the week they made water runs with their 1961 fire truck. Every evening, Mayor Tony Reames opened the town's water valve from 6 to 9, giving water to the 145 residents.

The town's plight made national headlines after AOL.com featured an article about its water crisis. Local businesses and manufactures responded by organizing an event with the mayor and city council called "Save the Water Race."

In the daylong event, residents, plumbers and plumbing manufacturers worked together to stop leaks and install water-saving devices. Seven major plumbing manufacturers, including support from the Plumbing Manufacturers Institute, donated new fixtures and services for every home. The results were phenomenal, with water savings calculated at more than 140 gallons per household per day. Mayor Reames said that by conserving so much water, the town was able to up its water usage to twelve hours a day.

"What these companies did was truly remarkable. It was like a whirlwind. From green

materials to water-saving products, they showed up ready to go," Reames said.

An emergency pipeline from Bridgeport, Ala., is being laid, and the town hopes to have water flowing in the beginning of December.

Dallas to Create Green-Building Codes

The Dallas City Council is developing a plan to create green building standards that emphasize energy efficiency and resource conservation. A task force was created to work with industry representatives, and develop sustainability requirements. The task force is scheduled to present its recommendations for standards and implementation to the city council on March 18, 2008.

Georgia Introduces HET Legislation

Georgia has followed California's lead and introduced legislation mandating the use of high efficiency toilets (HETs). The legislation mirrors California's, with a phase starting in 2010 and reaching full enforcement in 2014. Georgia is hoping to encourage the installation of the HETs by offering a \$100 tax credit.

WaterSmart Innovations Conference and Exposition



The inaugural WaterSmart Innovations Conference and Exposition, Oct. 8-10, 2008, in Las Vegas, will be the premiere venue for showcasing new water-efficiency technology; building and strengthening effective, interdisciplinary relationships and establishing companies as international leaders in innovative water efficiency technology and services. At WaterSmart Innovations, a wide range of professional sessions, workshops and technical tours - along with an extensive exhibition featuring water-saving technologies and programs from around the world - will connect attendees with the resources they need in an atmosphere of networking, collaboration and learning, to create a new wave in water efficiency.

Visit www.WaterSmartInnovations.com for more information.

Los Angeles Approves Green Building Plan

The Los Angeles Planning Commission in November approved a green building program aimed at cutting the city's energy use by 15 percent.

The state already has some of the strictest building codes in the nation, but the new LEED Standards would reduce the amount of energy in large developments far below the current standards. The plan targets new buildings with more than 50 units or 50,000 square feet.

The city will also establish a team of experts to recommend improvements for all building, including residential and small business. The team will include members from Planning, Building and Safety, and Water and Power.

Some recommendations already made include the installation of toilets and showerheads that use less water, using high-efficient heating and air-conditioning units, and implementing the use of solar energy systems.

Earlier in the year Mayor Antonio Villaraigosa set a goal of reducing greenhouse gas emissions 35 percent below 1990 levels by 2030.

"In the city with the dirtiest air in America, reducing our carbon footprint is not a luxury but an absolute necessity," he said. "Green building may be the most significant thing we can do."

zeroHouse



Scott Specht's conceptual zeroHouse may look a little too out of the ordinary for some, but the home features some of the latest ideas in self-sufficiency and eco friendliness.

The residence has a solar panel roof that generates its own power, storing the energy in batteries that can power the house for a week without sunlight. The roof may look like it would fly off in high winds, but the tubular steel structure is able to withstand 140 mph gusts, and has flexible attachment points allowing movement without damage. It has a helical-anchor foundation system that enables construction in 10 feet of water or on a 35-degree slope.

The house is also designed to collect and store rainwater. The plumbing is all gravity fed, eliminating the need for a pump. All organic waste is processed in a digester located beneath the house.

The 650-square-foot house is designed to ship on two flat bed trucks and can be assembled in a day. Price for the eco-home is said to be around \$350,000.

To visit the site: <http://www.zerohouse.net/>

EPA Recognizes Water Efficiency Leaders

The EPA has announced the winners of the 2007 Water Efficiency Leader (WEL) awards. Winners were chosen by a panel of national water experts and based on three criteria: leadership, innovation and water saved.

Winners of the 2007 WEL Awards are:

- Intel Corporation, Ocotillo Campus (Chandler, Ariz.) - Corporate - This company's three initiatives focused on the collective recycling of 75 percent of the water used during manufacturing thereby reducing their net demand for city water; the take-back of 825 million gallons of treated wastewater from the city's wastewater plant; the

internal re-use of 530 million gallons of water; and treatment of 575 million gallons of water to drinking water standards that is then returned to the local underwater aquifer.

- Santa Clara Valley Water District (San Jose, Calif.) - Government - This water management agency helped the community reduce water demand by 55,000 acre-feet, or 12 percent of present demand, through conservation and water recycling with plans to further reduce demand for water.
- Frito-Lay (Plano, TX) - Industry - Frito-Lay's efforts at its 33 facilities resulted in the 39 percent reduction of water consumption per pound of product since 1999.
- Lackland Air Force Base (Lackland, TX) - Military - This military base uses comprehensive water conservation measures and purchases recycled wastewater for reuse on the base.
- The Kentucky Pollution Prevention Center (KPPC), at the University of Louisville (Louisville, Ky.) - Nongovernmental Organization - The Center finds profitable pollution prevention solutions for the metal industry to reduce the need for, and cost associated with, end-of-pipe controls. One example includes KPPC's assistance that resulted in a 30 percent net water savings, valued at \$50,000 annually, while production at the metal finishing plant increased 50 percent.
- Allan Dietemann, Seattle Public Utilities (Seattle, Wash.) - Individual - Mr. Dietemann has promoted water conservation for 20 years, resulting in reduced water consumption for businesses, government, and homeowners alike.

Learn more about the winners: www.epa.gov/water/wel

Christmas Going Green



The season of lights has gone green. In an effort to conserve energy, homeowners and many national iconic trees are switching to LED's. The Times Square New Year Ball will be LED's, as is the Whitehouse tree. The Rockefeller Centers 84ft. tree will be switching it's 30,000 lights to LED's this year, and will power them with solar panels. Stores are also reporting a gaining in popularity in LED's this year.

LED's (light emitting diode) are semiconductor devices that give off light when electricity excites them. They release very little heat, and use 80 percent less energy. An LED uses 0.04 watts of electricity, compared to 0.45 watts for a mini incandescent light bulb, and 7 watts for a C7 incandescent bulb. The LED's last up to 100,000 hours, so while they may cost more initially, they pay for themselves over a short period of time. It is estimated that two million kilowatt hours of electricity is consumed by Christmas lights each year.

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NORTH AMERICA

International Trade Show for Kitchen & Bath, Plumbing,
Commercial/Industrial PVF, Heating and Air Conditioning
Georgia World Congress Center
Atlanta, GA, USA

October 1 - 3, 2008

Events Calendar:

**Ecobuild Fall and
AEC-ST Fall**
December 10-13, 2007
Washington DC
www.ecobuildamerica.com

International AHR Expo
January 22-24, 2008
Javits Convention Center
New York City, NY
www.ahrexpo.com

**(ACCA 2008)
Conference & Indoor Air Expo**
February 5-7, 2008
The Broadmoor
Colorado Springs, CO
www.indoorairexpo.com

**The International
Builders Show**
February 13-16, 2008
Orange County Convention
Center, Orlando, FL
www.buildersshow.com

ISH China 2008
Feb 19-22, 2008
Shanghai International Expo Centre
Shanghai, China
www.messefrankfurt.com

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