



The HVAC&R Industry

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Advancing HVAC&R to Serve Humanity
And Promote a Sustainable World

The HVAC&R Industry, ASHRAE's free weekly eNewsletter for HVAC&R professionals, provides relevant, timely information about industry and technology for people who create healthy, comfortable indoor environments.

Industry News

Renewable Energy Benefits From Recovery Act Funding, Says Report

WASHINGTON—Renewable energy generation in the United States has benefited greatly from the federal stimulus bill's \$100 billion investment in energy innovation, according to a report released this week by U.S. Vice President Joe Biden. According to "The Recovery Act: Transforming the American Economy Through Innovation," the United States is now on track to achieve three major breakthroughs due to Recovery Act investments: cutting the cost of solar power in half by 2015; reducing the cost of batteries for electric vehicles by 70% between 2009 and 2015; and doubling U.S. renewable energy generation and renewable manufacturing capacity by 2012.

130 Seek Care After Alabama Ammonia Leak

THEODORE, Ala.—Several people remain in intensive care a day after an ammonia leak at a coastal Alabama plant that freezes chickens. About 130 people have sought treatment since ammonia spilled Monday at the suburban Mobile plant, creating a vapor cloud that also caused respiratory problems for people working nearby. Ammonia is a suffocating gas that can be fatal in high concentrations.

Oregon Office Building Declared Structurally Unsound

SALEM, Ore.—The Courthouse Square building and transit mall in Oregon's capital has been declared structurally unsound. The city recently ordered the facility's owners and occupants, Marion County and the Salem Area Mass Transit District, to vacate the building and repair several issues in the building or demolish it. The 163,000 ft² (15 100 m²) project was completed in 2001. Problems include broken concrete in support columns, bent window frames that cracked windows, and cracks in walls. The building was certified LEED Bronze in Version 1 of the USGBC program in 2002.

Mars Rover Technology Could Improve Earth's Solar Panels

BOSTON—A system designed to help NASA explore Mars could potentially improve solar power efficiency for devices used on earth, says a scientist who helped develop the technology. Mars exploration rovers have sensors that detect dust build-up and clean the surface of their solar panels with an electric charge to remove debris. "A dust layer of 4 g per square meter decreases solar power conversion by 40%," Malay Mazumder, Ph.D., recently told the national meeting of the American Chemical Society. "In Arizona, dust is deposited each month at over four times that amount. Deposition rates are even higher in Australia, the Middle East, and India."

Americans Harbor Misconceptions About How To Save Energy

NEW YORK—Many Americans believe they can conserve energy by taking relatively inconsequential steps, such as turning off lights, while ignoring more impactful measures, according to a new survey. Only 2%–3% of respondents to the online survey by Columbia University cited major energy-saving steps, such as purchasing energy-efficient cars and appliances, and weatherizing homes, as being important in reducing energy consumption. Nearly 20% of respondents cited turning off lights as the best approach to conserving energy. For a sample of 15 activities, respondents underestimated energy use and savings by a factor of 2.8 on average, with small overestimates for low-energy activities and large underestimates for high-energy activities.

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ASHRAE jobs

DOE 'Innovation Hub' to Develop New Energy-Efficient Building Designs

PHILADELPHIA—DOE is creating the Energy-Efficient Building Systems Design Energy Innovation Hub to develop technologies that make buildings more energy efficient. The hub team of researchers from academia, two national laboratories, and the private sector will receive up to \$122 million over the next five years to develop models that are applicable to retrofits and new construction. The hub will be located at the Philadelphia Navy Yard Clean Energy campus. Its more than 200 buildings and its independent electric microgrid will be used as a "virtual municipality."

ASHRAE News

DOE Providing Incentives for States to Meet Building Codes

The U.S. Department of Energy (DOE) is seeking proposals to support activities to promote adoption and implementation of the most current building energy codes. ASHRAE Standard 90.1-2007 is included in the target codes. DOE has allocated a total of \$5 million to be awarded in increments up to \$250,000 for a single project in as many as 20 states. As of June 2010, the building codes of 14 states and four territories do not meet the requirements of Standard 90.1-2007.

Feature of the Week

Carbon Dioxide in North American Supermarkets

By **David Hinde**, Member ASHRAE; **Shitong Zha, Ph.D.**, Member ASHRAE; and **Lin Lan**, Associate Member ASHRAE

Commercial refrigeration system design in North America is not pressured by HFC bans or high taxation of refrigerants as in other parts of the world. The move towards systems with lower refrigerant charge and lower leakage rates has been, for the most part, voluntary. CO₂ systems are considered a good choice because of their significant installation savings, energy consumption better than traditional HFC direct expansion systems, and low carbon emission rates. This article reviews the findings of analysis of three low-temperature systems.

Product News

Energy Optimization Software From BuildingIQ

SYDNEY, Australia—BuildingIQ announces the Predictive Energy Optimization System. The software uses real-time building modeling, forecasting and occupant comfort input to learn the building's thermal characteristics and the capacity of its energy systems. The building model is then combined with external data such as weather forecasts and energy prices to plan the optimal way to manage the building's energy.

Modulating-Condensing Gas Boiler From Laars

ROCHESTER, N.H.—The NeoTherm modulating-condensing, direct-vent, low NO_x, sealed combustion gas boiler by Laars offers 95% thermal efficiency. The line includes six commercial sizes, from 285 MBH to 850 MBH (2800 MW to 8300 MW). Models feature the company's integrated control system with PID logic that governs ignition, temperature and indirect water heater functions; outdoor reset; frost protection and high limit.

Indoor Environmental Parameter Data Logger From ROTRONIC

BASSERSDORF, Switzerland—ROTRONIC introduces the HygroLog HL-20/21 humidity and temperature data loggers that record ambient conditions in indoor areas such as research laboratories, high-tech manufacturing facilities and warehouses, museums and storage areas for sensitive goods. Models record up to 20,000 pairs of relative humidity and temperature values with accuracy of ±0.8% RH and 0.2°C (0.36°F).

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