



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

GM To Switch to HFO Refrigerant

DETROIT—General Motors is switching to a new refrigerant for all 2013 Chevrolet, Cadillac, Buick, and GMC models. The Honeywell refrigerant, HFO-1234yf, breaks down faster in the atmosphere than R-134a. GM says it will reduce the amount of airborne refrigerant from the new cars by more than 99%. HFO-1234yf refrigerant breaks down in 11 days, versus 13 years for R-134a. Its global warming potential (GWP) is 4, compared to 1,400 for R-134a.

DOE To Fund Research Into Producing Fuels From Sunlight

WASHINGTON—The U.S. Department of Energy (DOE) will provide up to \$122 million over the next five years to a multidisciplinary team of scientists to develop methods to generate fuels directly from sunlight. The goal is to build and commercialize an integrated solar energy-to-chemical fuel conversion system. DOE says that, if successful, the concept—to combine sunlight, water, and carbon dioxide to make a clean fuel—would be an energy sector "game changer."

U.S. Postal Service Delivering Energy-Use Reductions

NEW YORK—The U.S. Postal Service is implementing a number of energy-saving measures in its facilities to reach its goal of reducing energy use by 30% by 2015. A green roof atop a mail-processing facility in Manhattan has reduced energy costs by more than \$1 million. The facility also replaced 1,600 windows. The Postal Service is investing nearly \$29 million to improve energy efficiency at its facilities on the East Coast, and has signed a \$28.7 million contract to install energy-management systems in up to 2,250 post offices.

U.S. Senate Shelves Climate Change Bill

WASHINGTON—U.S. Senate legislation designed to reduce greenhouse gas emissions has been shelved because supporters were unable to get enough votes to pass the measure. A less expansive energy bill, without climate change action, is expected to be introduced later this year. The legislation, called the Clean Energy Jobs and Oil Accountability Act, is aimed at increasing the use of "green" energy and encouraging energy efficiency.

Duke Energy Moves Into New LEED Platinum HQ

CHARLOTTE, N.C.—Utility company Duke Energy has started moving employees into its new corporate headquarters. The 48-story Duke Energy Center has earned LEED Platinum certification. It has separate monitoring of the energy use for each of its floors. Electronic displays show real-time use levels for lights, receptacles and heating and air conditioning. Furniture and work areas are designed to reduce airborne irritants and maximize daylighting. The company says the new offices will be about 20% more energy efficient than had they not been built to LEED specifications.

ASHRAE News

Bellenger Testifies on Optimizing Federal Building Efficiency

WASHINGTON—ASHRAE President Lynn G. Bellenger recently testified before a U.S. House of Representatives subcommittee that "We are poised to embark on a new era of energy efficiency... that will lead us to net zero energy buildings." Bellenger told the subcommittee that "Going forward, maximizing building efficiency and sustainability will require... working together toward a whole building approach that fully considers how each system and building component will interact instead of each discipline focusing on their own area of expertise." Bellenger also highlighted ASHRAE's initiatives that are helping to lead to increased building efficiency, including the Advanced Energy Design Guides and the Building EQ labeling program.

ASHRAE Seeks Papers for 2011 Annual Conference

ASHRAE seeks papers addressing advances in alternative technologies and net zero buildings, as well as HVAC&R fundamentals and commissioning, for the 2011 Annual Conference in Montreal. Papers are sought for tracks including Alternative Technologies (e.g., photovoltaic, geothermal, wind power, solar and VRV systems); Net Zero Buildings; Commissioning; HVAC Systems; HVAC Fundamentals and Applications; Professional Skills; and Refrigeration. Full-length technical papers or conference paper abstracts (400 words or less) should be submitted by Sept. 17, 2010. The 2011 Annual Conference will be held June 25–29.

Feature of the Week

Designing Chilled Beams for Thermal Comfort

By Ken Loudermilk, P.E., Member ASHRAE

Although active chilled beams are an in-room space conditioning device, they are also the room air diffusion device, so sizing and locating the beams is vital to providing acceptable levels of occupant thermal comfort as established by ASHRAE Standard 55. This article provides guidance on proper chilled beam installation design.

Product News

Refrigerant Distribution Valve From Danfoss

BALTIMORE—The Danfoss EcoFlow electronic expansion distributor valve helps achieve balanced distribution of refrigerant in air-conditioning systems and avoid misdistribution in evaporator circuits. The device uses patented technologies that enable the valve to calculate and adapt the refrigerant flow to each circuit using only one superheat sensor mounted at the evaporator outlet. The system corrects uneven refrigerant distribution and reduces superheat temperature, resulting in a consistently stable superheat level in each circuit.

Insulating Gel From Cabot Corp.

BOSTON—Nanogel silica aerogels from Cabot Corp., are designed to repel water, retain properties under compression and enhance design options and aesthetics in applications such as architectural daylighting and building insulation. Product features include low thermal conductivity, high porosity and high oil absorption capacity.

Absorption Heat Pump System From The Fulton Companies

PULASKI, N.Y.—The Fulton Companies offers the Invictus gas-fired absorption heat pump system, designed for commercial hydronic heating and cooling applications. It is piped into a traditional hydronic heating system alongside either condensing or noncondensing boilers to achieve thermal efficiencies of 149%. The system captures free energy from a natural source (outdoor air, geothermal, body of water) using the ammonia absorption cycle.

Subscription Management

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