

The Masonry Society

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From the Editor

You might wonder why a newsletter on Sustainable Masonry has so many articles on cement. The reason is two-fold. First and foremost, cement is an integral element in mortar and grout, and especially in certain regions of the country those materials can be a significant portion of a masonry wall. As a result, improvements in the environmental footprint of cement directly translate into improvements in the environmental footprint of masonry construction. The second reason for the large number of articles is that there is simply a lot of news about developments in the cement industry right now. Rest assured, not every edition will focus so much on a single product, but this time I felt it was worth it.

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CEMENT NEWS

This edition features links to several articles on the "greening" of cement. As an integral element in mortar and grout, cement can play a significant role in the environmental footprint of a masonry wall. Check out the articles below for the latest developments around the world. ~Tina

California Cement Maker Rides Out Recession on Sustainability

A maker of "green" cement weathered the recession like few others could. California-based Diversified Minerals makes high-performance and sustainable cement and concrete products, and even with its target market -- the construction industry -- in the doldrums, DMI has flourished. The company produces its more sustainable low-carbon concrete by using recycled materials such as fly ash and slag, according to this [Ventura County Star \(Calif.\)](#) article.

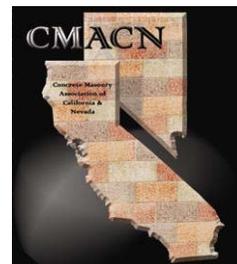
Carbon-absorbing Cement in Production

Novacem has reportedly invented a cement that has a negative carbon footprint -- the cement actually absorbs more carbon than it takes to make it, according to this [article](#). The process involves heat and magnesium oxide, hydrated magnesium carbonates and magnesium silicates. The end result? The cement eats carbon dioxide. Novacem plans to produce more than 27,000 tons of the stuff by 2015.

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N.Y. Cement Plant Upgrade Plan Approved

A plan to upgrade the Lafarge Cement Plant in Ravena, N.Y., is one step closer to happening, possibly this fall. The New York State Department of Environmental Conservation approved the final environmental impact statement for the site, which will include a more energy-efficient dry kiln that will use less electricity and produce less greenhouse gas and mercury. Read more in [The Daily Mail \(Catskill, N.Y.\)](#).

EPA Rules Could Hurt Industry, Increase Emissions, Prices

The Environmental Protection Agency's regulations targeting emissions from existing cement kilns are due to take effect in 2013 and could cost the industry billions and lead to outsourcing and higher prices, says the Portland Cement Association. One expert predicts the rules will put 20% of cement companies in the U.S. out of business. Another suggests housing and infrastructure costs would rise, and another sees greenhouse gas emissions increasing due to imports from less-regulated countries in this [The Express-Times article](#).

Report Details Energy Intensity Reductions by Cement Manufacturers

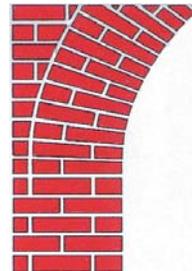
A Duke University study prepared for the U.S. Environmental Protection Agency reports that the cement industry reduced its energy intensity by 13 percent during a 10-year study period (1997-2007), averaging more than one percent per year of improvements. This significant achievement equates to a reduction of almost 1.5 million metric tons of energy-related carbon. In the period of study, the cement industry experienced unprecedented growth, yet was able to develop policies and improve manufacturing processes to address climate change and demonstrate its environmental stewardship. [Read the news release](#).

Bill in House to Prohibit EPA from Regulating Fly Ash as Hazardous

House Bill HR 1391, the "Coal Residuals Reuse and Management Act," which would prohibit EPA from regulating fly ash and other coal combustion residuals as a "hazardous waste," was recently approved by the House Environment and Economy Subcommittee. The bill would allow the states to establish their own regulatory programs to manage the disposal of CCRs as part of a state's existing municipal solid waste program under RCRA subtitle D (nonhazardous). The state programs would be



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subject to minimum federal guidelines. The EPA would be able to regulate the disposal in states which do not adopt a program, however, including enforcing a coal ash disposal permit program if a state fails to do so. Read [More](#).

MASONRY CONSTRUCTION EXCELS

Each of the articles included below discuss the benefits or superior performance of masonry construction, including a follow-up article on the damage in Joplin, MO. A key part of truly sustainable design is durability under difficult conditions. ~Tina

Concrete Block Construction Buttresses School Against Tornadoes

The Alabama public school system is turning to concrete to buttress its buildings against tornadoes. A July 2010 law mandated that new public schools be built with an Alabama Building Commission-approved safe space or hallway. Clay County's new high school features a "concrete shell." Grout-filled concrete blocks make up the first-floor walls -- which are able to withstand winds of 250 miles per hour according to this [The Anniston Star \(Ala.\)](#) article.

Article Questions Safety of Construction Methods and Codes

A recent article in The Kansas City Star titled "Experts challenge Home Depot building design, codes after Joplin tornado" takes an in depth look at the structural failure of the Home Depot store in Joplin, Mo., after the EF-5 tornado ravaged the town. Some engineers interviewed by The Star said building codes for big-box stores need to be strengthened, or the stores should have internal storm shelters when they're built. The [article](#) also compares the structural performance of the Home Depot to that of the Walmart building located across the street and praises the Walmart for having an interior reinforced block safe area where approximately 200 people safely rode out the storm.

Older Buildings May be Eco-Friendly After All

Ripping down old buildings to build new green ones may not be the most eco-friendly option. The Department of Energy says commercial buildings erected prior to 1920 use less energy per square foot than those built before 2000. Older buildings, it seems, were constructed with high thermal mass, passive heating and cooling. And, obviously, were built to last. "This whole idea that reusing existing resources -- especially historic buildings -- is the



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ultimate in recycling is beginning to get some traction," says Donovan Rypkema, a preservationist in this [Miller-McCune.com](#) article.

GREEN BUILDING NEWS

DOE Announces Guide for More Energy Efficient Office Buildings

The U.S. Department of Energy has announced the release of the first in a new series of Advanced Energy Design Guides (AEDGs) to aid architects and engineers in the design of highly energy efficient office buildings. To learn more, click [here](#).

Greenbuild Announces 2011 Programming

The [education program is live](#) for the 2011 Greenbuild International Conference and Expo, being held Oct. 4-7 at the Metro Toronto Convention Centre. Featuring more than 90 education sessions, this year's education program is packed with the latest information you need to thrive in the green building industry. Once you've [registered for Greenbuild](#) use [the scheduler](#) to secure your seat in the education sessions of your choosing.

U.S. Cities Continue Sustainability Push

Energy and sustainability efforts continue to have a place in city hall, according to a survey by the United States Conferences of Mayors. Read [more](#).

The Economics of Green Building

According to a paper by Dr. Nils Kok and Dr. Piet Eichholtz of Maastricht University and Dr. John M. Quigley of the University of California, Berkeley, there is strong evidence to support the notion that green building is financially as well as environmentally responsible. Read [more](#).

Businesses Commit to Energy Efficiency in Buildings

The World Business Council for Sustainable Development (WBCSD) announced the 100th signatory to its Manifesto for Energy Efficiency in Buildings, signaling that companies who are market leaders in sustainable development recognize that buildings are a critical component shaping and driving the world's energy consumption profile. Learn more by clicking [here](#).

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