

The Masonry Society

Sustainability E-News

Sustainability and Fire Safe Design

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SPONSORED EDITION

From the Editor

I had the opportunity to catch up on some of my reading recently and came across two articles I've included this month. One, featured in STRUCTURE magazine, talks about the environmental impact of fire. It's a topic not often discussed in sustainability circles, but one that is familiar to many in the masonry industry. Providing fire resistance can be done in many ways, but often times the environmental impact of products used to provide fire resistant construction are not considered. Masonry products are inherently fire resistant, an added benefit without any added environmental impact. The other consideration is the ecological impact of building fires and the resources used to fight them. The article below discusses both.

The other article, from Modern Steel Construction, provides a good discussion of Environmental Product Declarations (EPDs) and building product transparency - a topic that is also being discussed at the ASTM E60 Committee on Sustainability meetings this month. Providing information on building products in a way that is meaningful and reflects the impacts of products as they are used in a building is an ongoing challenge.

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NOTE: Inclusion in this newsletter is not an endorsement of the products and materials featured, nor have these products been evaluated by TMS or the editor. Furthermore, the views expressed in the articles featured are those of the article authors.

GREEN BUILDING NEWS

Each of the articles below touches on aspects of sustainable design that are often overlooked. ~Tina

Tornado Safe: Concrete Masonry Offers a Solution

SMART|dynamics of masonry

Corey Schultz, AIA, LEED AP, Schultz Squared Architects, Wichita KS, was first in the US to design tornado shelters to meet 250 mph criteria and has more than 85 to his credit now. In the [current issue](#) of SMART|dynamics of masonry, he shares information regarding code revisions in the 2015 IBC. Jamie Farny, Director of Building Marketing for the Portland Cement Association, also writes about designing concrete masonry Safe Rooms using FEMA P-320 in [Masonry Resiliency Matters](#).

Environmental Impacts of Fire

STRUCTURE MAGAZINE

Fire is an extreme loading condition that must be considered in the design of buildings according to [this article](#) in STRUCTURE magazine. It is also an area overlooked by most sustainability metrics. Structural fire engineering impacts the environment in two ways: through the building materials chosen to provide fire resistance and through the ecological impact of fire itself and the resources used to fight fires.

Sustainable Construction Comes in All Shapes, Forms

FINANCE-COMMERCE.COM

Richard Murphy, CEO of Murphy Warehouse Co., says manufacturing facilities and warehouses are suitable for sustainable construction according to [this article](#). His company invested in green building at its logistics campuses, reduced its water use and found thousands of dollars in savings that it invested back into the company.

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GREEN PRODUCT NEWS

The first article below provides an excellent discussion of EPDs and challenges currently faced in achieving product transparency. ~Tina

Achieving Clarity

MODERN STEEL CONSTRUCTION

In response to a call for transparency by advocates of green construction, a large number of environmental product declarations (EPDs) documenting the environmental impacts of construction products have been published this year. But transparency can be rather cloudy when it comes to evaluating the sustainability of building materials. In [this article](#) John Cross, AISC Vice President, notes that EPDs are not directly comparable in most cases and there is much that is often not understood by potential users of EPDs.

Cement Production Minor in EPA Greenhouse Emissions Census

CONCRETE PRODUCTS

According to the EPA Greenhouse Gas Reporting Program 2015 data, U.S. Portland cement production accounted for 2.3 percent of carbon dioxide equivalent (CO₂e) emissions. This is in stark contrast to the 5 percent of global carbon dioxide emissions often tagged on the industry. To read more about the data collected and how cement compared to other industries, please [click here](#).

Carbon Dioxide Transformed into Ethanol Using Nanotechnology

THE CHRISTIAN SCIENCE MONITOR

Researchers have stumbled upon a way to make ethanol using carbon dioxide and nanotechnology, according to a study published in ChemistrySelect. "We're taking carbon dioxide, a waste product of combustion, and we're pushing that combustion reaction backwards with very high selectivity to a useful fuel," said lead author Adam Rondinone in [this article](#).

CODES and STANDARDS NEWS

The Ramifications of this IgCC Enactment are of National Import

GREENBUILDINGLAWUPDATE.COM

On September 28, 2016, the County Executive of Montgomery County, Maryland submitted Executive Regulation 21-15, which adopts the International Green Construction Code 2012, to the County Council. If the Council does not approve or disapprove the proposed IgCC within 60 days after receiving it, the green code is automatically approved. What is proposed is the boldest adoption of the IgCC anywhere. [Read more.](#)

Greener, Greater Mid-Sized Buildings

URBANGREENCOUNCIL.ORG

The NYC City Council recently passed three laws to expand benchmarking requirements from buildings 50,000 square feet and above to include mid-sized buildings over 25,000 sf. This grows the pool of buildings affected by Local Laws 84 and 88 by 10,000 properties - read about other impacts of this legislation on [Urban Green Council's blog](#).

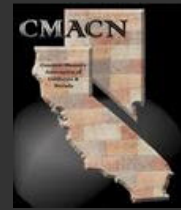
EDUCATIONAL NEWS

TMS offers many seminars including "The Role of Masonry in Sustainable Design and LEEDv4" which will be hosted by ADAMS an Oldcastle Company on Nov. 8, 2016 in Cary, NC and by the Masonry Institute of St. Louis on April 26, 2017 in St. Louis, MO. For more information, or to sponsor a seminar in your area, contact the TMS office.

Technical Papers and General Interest Papers Needed for TMS Journal

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The Masonry Society is seeking quality technical papers for publication in the TMS Journal. Both research topics and general interest topics will be considered. For information on submitting a paper, visit the [Journal Page](#) on



Concrete Masonry
Association of California &
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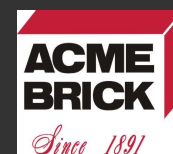


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