



Progress

This issue of SQ I thought I'd catch everyone up with what other entities are doing that may affect water-based fire protection in Green Construction. Let's review the progress of the ICC's International green Construction Code. We'll also look at the National Association of State Fire Marshals' Green Committee as they advocate for fire sprinklers as a way to help the environment. FM Global Home Fire Sprinkler Coalition and the data they are putting together to help support the fact that "Fire Sprinklers Are Green" will also be examined.

International green Construction Code (IgCC) Update

Public comment was opened through May 14th. A Public Comment Meeting is scheduled for Chicago in August.

Information on the IgCC can be found at this link to the International Code Council: <http://www.iccsafe.org/cs/IGCC/Pages/PublicVersionDevelopment.aspx>

Two sections that the NFSA is commenting on are below. Please note: Red text is my highlighting. The changes are noted in the strikethrough which denotes language to be removed. New text is underlined.

■ **708.12 Graywater systems.** The design of the graywater system shall conform to accepted engineering practice.

■ **708.12.1 Graywater sources.** Graywater reuse systems shall collect waste discharge from only the following sources: bathtubs, showers, lavatories, clothes

washers, and laundry trays. Water from other approved non-potable sources including swimming pool backwash operations, air conditioner condensate, rainwater, cooling tower blow-down water, foundation drain water, steam system condensate, fluid cooler discharge water, food steamer discharge water, combination oven discharge water, industrial process water, and **fire pump test water** shall also be permitted to be collected for reuse by graywater systems, as approved by the code official and as appropriate for the intended application.

■ **708.12.1.1 Prohibited graywater sources.** Wastewater containing urine or fecal matter shall not be diverted to graywater systems and shall discharge to the sanitary drainage system of the building or premises in accordance with the International Plumbing Code. Water from reverse osmosis system reject water, water softener discharge water, kitchen sink wastewater, dishwasher wastewater, and wastewater discharged from wet-hood scrubbers shall not be collected for reuse within a graywater system.

■ **NEW 708.12.1.2 Fire Protection.** ~~Graywater shall not be used for flushing, supplying, or testing of any part or section of a water-based fire protection system.~~

And

■ **710.7 Non-potable water supply to fire pumps project elective.** Where projects are intended to qualify for a non-potable water supply to fire pumps proj-

ect elective in accordance with Section 303.4, one or more **fire pumps** shall be located within 200 feet of a source of **reclaimed or recycled water a rainwater holding tank** of sufficient quality, pressure, and capacity for fire pump applications and the fire pumps shall be connected to such source of **reclaimed or recycled water rainwater holding tank**. The connections shall be in accordance with Section 403.3.2 of the International Building Code.

710.7.1 Labeling and signage. Fire pumps connected to a non-potable water supply shall have signage in accordance with Section 706.2 provided at the building's fire command center and at each fire pump.

In my opinion, the justification given for the code changes is that there is no comfort level in our industry with chemicals that may be found in a graywater or other non-potable water holding tank. Rainwater supplies appear to be a more "self contained" system with cleaner water for testing or as a supply to the system.

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NFSA's New York Regional Manager and Secretary to the newly formed "Green Committee"

Dominick Kasmauskas

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National Association of State Fire Marshals (NASFM)

The National Association of State Fire Marshals (NASFM) has launched a web site, *Bridging the Gap*, www.GreenBuilding-Firesafety.org, that will bring together the complex issues relating to building in an environmentally sensitive manner while still meeting the overriding needs of fire safety for the occupants and emergency responders. Funded by a Department of Homeland Security Fire Prevention and Safety Grant, this project will look at where fire safety concerns coincide with the rapidly growing field of green buildings.

"It is important that the fire service help facilitate the growing trend toward green construction," said NASFM President Alan Shuman. "At the same time, there are definite knowledge gaps among fire service officials regarding how to recognize green buildings, as well as how to review plans, issue permits and safely fight fires in structures that may feature unconventional designs and systems."

Chief Shuman, who is also the Georgia State Fire Marshal, added, "Through this site, NASFM will be able to provide fire officials, building officials, design professionals and other stakeholders with an information exchange to help ensure that both needs are met - protecting the environment while protecting people from fire."

The growing web site is designed as a community where participants can contribute to the knowledge base and exchange information and experiences. It includes sections focusing on areas such as alternative fuels, building materials and construction, roofs, water conservation and much more. Guiding the project is a national Advisory Working Group of

professionals drawn from a number of different fields relating to building and fire safety.

"This site will evolve and grow over time," explained Karen Deppa, NASFM project manager. "The key is for visitors to the site to share information as well as obtain it. We hope that sections such as the Discussion Forum will foster this type of participation."

Chief Shuman also hopes that NASFM's project will lead to a cultural shift in how fire prevention and protection are viewed in the context of environmental sustainability. "When you think about the threat that a fire represents not only to lives, but also to the environment," he said, "It becomes clear that every fire that is prevented or quickly suppressed protects our natural resources. Fire Safety is a very Green concept."

(I am serving on the NASFM Green Committee representing the NFSA.)

Fire Sprinklers Can Reduce Greenhouse Gas Emissions from Building Fires by 98 Percent, Research Finds

Greenhouse gases released by burning buildings can be reduced by 98 percent when automatic fire sprinklers are installed, according to a groundbreaking joint research project by FM Global and the non-profit Home Fire Sprinkler Coalition. The research findings also reveal that a single fire in an unsprinklered building can negate the typical environmental benefits of "green" construction.

Reduction in water usage to fight a home fire is near 90%.

To view the release, go to: www.fmglobal.com/press_release/2010/sprinklers_041310.html.