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December 15, 2014

Docket No. FR-5803-N-01 Manufactured Home Construction and Safety Standards:
Request for Recommended Changes

**COMMENTS OF:
THE INTERNATIONAL CODE COUNCIL (ICC)
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The International Code Council (ICC) offers the following comments on:
**Docket No. FR-5803-N-01 Manufactured Home Construction and Safety Standards;
Request for Recommended Changes**

Background

The International Code Council (ICC) is a member-focused association. It is dedicated to developing model codes and standards used in the design, build and compliance process to construct safe, sustainable, affordable and resilient structures. Most U.S. communities and many global markets choose the International Codes. The International Codes, or I-Codes, published by ICC, provide minimum safeguards for people at home, at school and in the workplace. Building codes benefit public safety and support the industry's need for one set of codes without regional limitations.

Fifty states and the District of Columbia have adopted the I-Codes at the state or jurisdictional level. Federal agencies including the Architect of the Capitol, General Services Administration, National Park Service, Department of State, U.S. Forest Service and the Veterans Administration also enforce the I-Codes for the facilities that they own or manage. The Department of Defense references the International Building Code for constructing military facilities, including those that house U.S. troops, domestically and abroad. Puerto Rico and the U.S. Virgin Islands enforce one or more of the I-Codes.

The International Code Council (ICC) was established in 1994 as a non-profit organization dedicated to developing a single set of comprehensive and coordinated national model construction codes. The founders of the ICC are Building Officials and Code Administrators International, Inc. (BOCA), International Conference of Building Officials (ICBO), and Southern Building Code Congress International, Inc. (SBCCI). Since the early part of the last century, these non-profit organizations developed three separate sets of model codes used throughout the United States. Although regional code development has been effective and responsive to our country's needs, the time came for a single set of codes. The nation's three model code

groups responded by creating the International Code Council and by developing codes without regional limitations; the International Codes.

Summary

Consistent with the National Manufactured Housing Construction and Safety Standards Act of 1974, as amended, the notice invites interested persons to submit proposed changes to update and revise HUD's Manufactured Home Construction and Safety Standards. These proposed changes will be submitted to the Manufactured Housing Consensus Committee (MHCC) for review and consideration as part of its responsibility to provide periodic recommendations to HUD to adopt, revise, and interpret the HUD standards.

ICC requests that HUD's Manufactured Home Construction and Safety Standards be amended to be consistent with the requirements of the International Residential Code for One and Two Family Dwellings requirements for smoke alarms, carbon monoxide detectors, and an automatic fire sprinkler systems in all housing units. Installation of these life safety detection and fire suppression systems at the time of manufacture would eliminate fire deaths in new manufactured homes. These fire and life safety requirements would allow manufactured homes to comply with state law requirements in jurisdictions that require compliance with IRC life safety requirements in housing units at the lowest cost. , Most importantly, these IRC requirements would save hundreds of lives lost and prevent thousands of injuries that occur annually from fires, floods and carbon monoxide poisoning in manufactured homes under the jurisdiction of HUD.

ICC also recommends that HUD add a section that requires manufactured homes to be manufactured so as to comply with flood protection requirements of the IRC when the home is to be placed in a coastal or other high hazard flood zone.

Proposed Change to HUD Manufactured Home Construction and Safety Standards

ICC proposes that 24 CFR 3280 Subpart C, be amended by adding two new subsections:

24 CFR 3280.210 Fire and Life Safety Detection and Suppression Systems. All manufactured home dwelling units shall comply with the following life safety requirements of *2015 International Residential Code for One and Two Family Dwelling Units* ©(IRC).

Residential Fire Sprinkler Systems (R313.2)
Interconnected Smoke Alarms (R314)
Carbon Monoxide Alarms (R315)

24 CFR 3280.211 Life Safety and Structure Resilience. All manufactured home dwelling units shall comply with the flood safety requirements of *International Residential Code for One and Two Family Dwelling Units* ©(IRC).

Flood resistant construction (R322) with specific requirements for Manufactured Homes in R322.1.9

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All of the cited *2015 International Residential Code (IRC)* requirements can be found in Chapter 3 of the code, which is available for viewing at codes.iccsafe.org

The International Residential Code is adopted throughout the United States, and since the 2009 edition, Section R313 has required the installation of automatic fire sprinklers in all new residential dwelling units. This requirement is intended to reduce the risks associated with the change in materials of construction, as well as the significant changes in the materials of housing unit room contents and furnishings, which has dramatically raised the risk of fire related deaths and injuries in new homes. These changes have affected all new dwellings, including manufactured homes.

The IRC has required smoke alarms since the 2000 version, and has required carbon monoxide detectors for certain housing units since 2006. All of these requirements are minimum life safety requirements, of minimal cost, with demonstrated proof that they save thousands of lives annually.

We believe that most new manufactured homes are already protected by smoke alarms, and technology has made interconnected smoke alarms a sensible, and almost zero additional cost requirement in the new IRC. Likewise, carbon monoxide detectors are required where a fuel-fired appliance is installed in the dwelling unit, and such detectors are often combined in a single system with smoke alarms, which the code recognizes and permits.

The requirement for a sprinkler system follows the evidence that where sprinklers are installed in all new homes the incidence of significant fires is dramatically reduced, property damage is dramatically lessened, and most important, deaths from fire are eliminated as a risk, both to the occupants, and to first responders who answer calls when a fire breaks out. In the one jurisdiction where sprinkler systems have been required in new residential dwellings, the record is clear: not a single death, to either a firefighter or occupant, has occurred in a sprinklered home for nearly thirty years. This is a remarkable statistic, and argues strongly in favor of sprinkler installation.

That jurisdiction (Scottsdale, AZ) is one where construction and home sales were booming over those same twenty years, putting to rest the false claim that requiring sprinklers would damage home sales, or make homes too expensive. See Scottsdale Sprinkler System Reliability report: <http://www.usfa.fema.gov/pdf/efop/efo42677.pdf>

The fact is that site built homes and manufactured homes share one of the key risk factors for fires: an increase in the flammability of home furnishings that has been well documented, and is a reason that more and more fires are not survivable, especially for the elderly and the very young, who often cannot escape in time. Likewise, the faster flashover time with newer home furnishings and materials, means that the fire department often cannot reach a fire before the home becomes impossible for firefighter to enter, rescue trapped occupants or extinguish the blaze.

There is no reason that fire and life safety protection should be less for those who purchase lower cost manufactured housing than for those who purchase site-built housing. And the cost to install such systems should be less in manufactured housing than in site-built housing, due to

the lack of separate inspections, the ability to design common systems, and the cost reductions that accompany mass production. In fact, the cost of installing automatic sprinkler systems in Scottsdale, AZ site built homes has declined from over \$1.00 per square foot of protected space to around \$.59/sf, over the course of the years the requirement has been in place, despite generally rising construction costs over the same period. The same economies of scale should be expected with manufactured housing. See, Automatic Sprinklers, a Ten Year Study (<http://www.ircfiresprinkler.org/docs/scottsdale%20sprinklers%2010%20year%20report.pdf>)

The NFPA Research Foundation has release a study showing the cost of installing residential fire sprinkler systems for on-site construction to be an average of \$1.35/sq. ft.
Link: <http://www.nfpa.org/research/fire-protection-research-foundation/reports-and-proceedings/suppression/home-fire-sprinklers/home-fire-sprinkler-cost-assessment-final-report>

It is reasonable to presume the cost would be lower for manufactured housing based on the efficiencies that can be achieved with installation at the manufacturing facility.

Two recent fires in manufactured homes, one in Edna, TX and the other in Portland, ME, which together claimed the lives of nine people- seven children and two adults- should be reason enough for HUD to immediately mandate the same protection for manufactured homes as is now required in the International Residential Code for site built homes, which is used as the basis for residential building codes in 49 of the 50 states. See reports in FireRescue1: <http://www.firerescue1.com/children/articles/2029347-5-children-killed-in-Texas-mobile-home-fire/>

The other requirement, in the second proposed new section, is to mandate that manufactured homes be installed in accordance with section R322 of the IRC, including Sec. R322.1.9 which includes specific requirements for manufactured homes, to be sited in compliance with flood plain elevation, as well as anchor and tie-down provisions of that section. This section, which includes provisions addressing manufactured homes in high hazard coastal zones, is also a minimum requirement, and should apply to manufactured homes in the same way provisions of Sec. R322 apply to other site built homes in such zones.

We appreciate the opportunity to comment on the agenda for HUD's Manufactured Housing Safety Program, offer our continued support to HUD in this program, to achieve the shared goal of healthy, safe and affordable housing units for those served by HUD programs. Please let us know of any questions or concerns, and any way in which ICC can assist the Department in achieving its goals.