



HOME BUILDERS ASSOCIATION OF CONNECTICUT, INC.

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*Your Home
Is Our
Business*

September 8, 2010

To: Code Amendment Subcommittee, of the Connecticut Codes & Standards Committee

From: Bill Ethier, CAE, Chief Executive Officer
Bob Fusari, Sr., Board Member & Past President, HBA of Connecticut

Re: 2009 IRC Adoption

Pursuant to your request for technical assistance and comments on 2009 *International Residential Code* (IRC) section R313, Residential Sprinklers, and on behalf of the Home Builders Association of Connecticut, Inc. and our 1,100 member firms, we request that you delete Section R313 in its entirety from the 2009 IRC without substitution.

As a preliminary matter, deletion of section R313 will not impact any other section of the code, other than the Table of Contents, as it is our understanding it is not referenced elsewhere. And, you would be joining at least twenty-four (24) other states that have deleted section R313 or otherwise prohibited mandatory fire sprinkler requirements for one and two family homes. See [State by State Status of 2009 IRC Adoption - as of July 20, 2010](#). The 24 are those for which NAHB has received confirmation from the state's code authority; there are known to be others for which NAHB is awaiting confirmation. {Post note: As of Jan. 25, 2011, 28 states have formerly rejected the fire sprinkler installation mandate.}

We also understand you have been provided a document from NIST, "Benefit-Cost Analysis of Residential Fire Sprinkler Systems," in support of the fire sprinkler mandate. We, therefore, request that you also review NAHB's response to this document as well as to a number of other reports from sprinkler proponents. See [Talking Points in Response to Sprinkler Proponent's Reports](#) (NAHB) (the response to the NIST report is on page 5).

Introduction: Everyone agrees that preventing death and injury by fire in structures has been and should remain a priority goal. The question before you is how to accomplish this goal in a reasonable, cost-effective manner and in a way that will not compromise or thwart other important societal goals, like providing affordable housing. Even putting aside other societal goals, we strongly believe that the inclusion of section R313 in the 2009 IRC does not accomplish the life safety goal because fire sprinkler requirements for new homes, versus homes built prior to 1985, address the wrong housing stock. It is in older homes, not new, in which the vast majority of fire deaths occur.

This memo and our backup documentation provide many reasons supporting our request. Such backup documentation is provided through links to online material that are hereby incorporated by reference in these comments. This comment is sent via email, as requested, to facilitate your access to online backup documentation. Please let us know if you have any trouble accessing this online documentation.

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Mandatory fire sprinklers in new one and two family new construction should not be adopted for all of the following reasons:

The cost for individual new home buyers would be excessively high. While individuals can make a legitimate decision to buy this protection, **it is a choice home buyers should make for themselves;** not imposed on them by regulators, legislators or municipalities. As you know, the IRC provides for how and where sprinklers are to be installed if a homeowner chooses to do so in section P2904, which is considered equivalent to NFPA 13D. Through the New Home Construction Contractor Registration Act, every prospective buyer of a newly constructed home in CT is provided a statutory registration notice alerting the home buyer to inquire about fire sprinkler installation. But there remains little market acceptance of residential sprinklers as consumers overwhelmingly choose to not install sprinklers in their homes.

Most residential fires (88 – 90%) occur in homes that are 25 or more years old and almost all fire deaths occur in these older homes. Newer homes are simply built better than they used to be, incorporating better fire stopping materials, better electrical systems and electrical installations, better egress, and most significantly, the hard wiring of smoke detectors and placement of such smoke detectors in every bedroom and additionally on each level of a home. Moreover, the current hard wired/battery operated smoke detector code provision also requires that when one goes off, all of them go off. If smoke is detected in the basement, someone in a second or third floor bedroom would be alerted, something hard to duplicate in pre-detector requirement homes. **The argument made by some proponents of mandatory sprinklers, i.e., that we have to start somewhere, misses the point.** As homes built today become older, they will still retain the newer fire safety construction standards by which they were built. **It is the older houses built to older codes that are more dangerous. Thus, installing sprinklers in new homes starts in the wrong place and will have little impact on fire safety.**

The 1996 legislative task force report, which we understand you have reviewed, showed that at that time on average there was one fire related death for every 61,000 1&2 family homes. Fire deaths have been decreasing and more recent data shows 1 fire death per 91,000 1&2 family homes. Nobody knows, of course, which homes will have a fire in the future. But basic statistics dictate that, on average, we will have to put sprinklers in 91,000 homes to protect that one life (assuming sprinklers work 100% of the time and ignoring the fact that fires occur at a greater rate in older homes).

Taking into consideration a lower fire death rate today than the rate when the legislature's report was written in the 1990s and the fact that neither fires nor fire deaths are spread evenly across the entire housing stock, with older homes producing more fires and fire deaths, the societal cost to save one life by forcing the installation in only new homes is unconscionably high. No individual or organization can assign a cost to a life, but as a matter of public policy and fact, society's laws and regulations do so all the time in many things we regulate, from auto safety to children's toys to hazardous waste standards. Many laws and regulations are based on cost-benefit analyses to life, health, public safety or the economy.

The recent severe economic downturn aside, which has grossly depressed new housing permits to the lowest levels ever recorded in the state (we're currently down 14% from last year's record low), Connecticut has generally averaged between 9,000 and 10,000 new housing units per year. At an average cost of \$9,948 per home (assuming an avg. 2,400 sq. ft. home, plus 1,000 sq. ft. basement at \$2.93/sq.ft price to the consumer), the total costs to society for a sprinkler mandate would be \$89.5 million to \$99.5 million each and every year. And, again, we would have to put sprinklers in over 91,000 homes before, statistically, society would save one life. Mandatory sprinklers would be a massively expensive undertaking as a society. We could spend much less that level of resources in so many better ways to save many more lives. It's simply illogical to proceed down this path.



In what should give pause to the proponents of sprinklers and indeed all of us, adding these costs to new homes will keep many potential buyers in older homes, which in turn increases their risk of fire-related injuries or death. Economists agree that for every \$1,000 in increased price for a home, nationally 217,000 buyers are priced out of that home. Some portion of those buyers, therefore, either will be forced to or opt to stay put or choose a less expensive, perhaps older, existing home. **Since the vast majority of fire-related injuries and deaths occur in older homes, requiring sprinklers in newly constructed homes could actually increase a person's risk of injury and death from a home fire.** Again, the emphasis by proponents of section R313 on new homes misses the target. We understand changing new construction codes is politically more acceptable than forcing changes to existing homes. **But, political expediency should not bury basic facts about the homes in which fire deaths occur. To address the real problem, i.e., older homes, homeowners should be educated about their life safety options, including for example strongly encouraged to maintain working smoke detectors.**





Practical and technical issues also exist that create huge hurdles to effectively implementing the mandatory sprinkler requirement of section R313. These hurdles, ranging from uncoordinated and varying water service connections, to the lack of qualified licensed sprinkler installers, are explained in our backup documentation in the three bullets under the heading, "Practical and Technical Issues Surrounding Fire Sprinkler Mandate" below.

Finally, we also urge you to not allow a local option for the adoption of mandatory fire sprinklers, as has been pursued by some sprinkler proponents in the state's legislative process. Providing local variance of our statewide building code is a huge step backwards. If municipalities are allowed to begin adopting local variations to our statewide code then why stop at fire sprinklers? We have had a statewide building code for decades. Our statewide code has created consistency and uniformity that benefits the public, the building industry and local enforcement officials.




We urge you to review the following backup documentation supporting this request:

General Statements and Talking Points Addressing Fire Sprinkler Mandates:




- [HBA of CT's Statement in the CT State Legislature](#)  on mandatory fire sprinklers.
- [Facts About Fire Sprinklers](#)  (NAHB)

- [Smoke Alarms Work - brochure](#) ; [Smoke Alarms Work - website](#) (NAHB)
- [Fire Sprinkler Talking Points](#)  (NAHB) - Provides a succinct overview of the issues surrounding fire sprinklers
- [Talking Points in Response to Sprinkler Proponent's Reports](#)  (NAHB)
- [Fire Sprinkler Q&A](#)  (NAHB) - Common questions regarding fire safety and residential fire sprinklers


The ICC Process of Adopting Section R313 Was Flawed:

- [NAHB's Appeal of ICC's Process of Adopting Mandatory Fire Sprinklers in 1&2 Family Homes](#) ; and [ICC's summary 1 pg denial of NAHB's Appeal](#) 
- [2009 IRC: Hijacking the Code Development Process to Create the Best Code Money Can Buy](#)  (a summary account of builder representatives who were present at the ICC hearing where section R313 was adopted)






Fire Sprinkler Mandates for New Homes Misses the Mark:

- [Fire Deaths by Age of Home in CT](#)  (Connecticut Fires occurring between 2000-2006 show no deaths during this 7 year period in any one or two family home built after 1985, the year hard-wired smoke detectors became mandatory).
- [History of Fire Deaths in Homes in US](#)  (Housing Economics, Elliot Eisenberg, Nov. 2002) (showing the relative performance of smoke detectors and fire sprinklers)
- [CT General Assembly Fire Sprinkler Task Force Report](#)  (Jan. 2, 1997) – among other findings, the report outlines data, which was not refuted by any other member of the task force, concluding it would cost society \$403,000,000 per life saved by mandating fire sprinkler installations in new homes.

Practical and Technical Issues Surrounding Fire Sprinkler Mandate:

- [Fire Sprinkler Symposium - Bob Fusari, Sr.'s Presentation](#) (PowerPoint, June 13, 2008) (outlining why fire sprinklers are not needed, how they add to the cost of housing and outlines technical problems associated with a sprinkler mandate)
- [Fire Sprinkler Installation Costs](#) (NAHB Research Center, PowerPoint, May 16, 2007)
- [Fire Sprinkler Technical Concerns](#)  (NAHB Research Center, 2007)

Other documentation raising questions about a fire sprinkler mandate:

- [State by State Status of 2009 IRC Adoption - as of July 20, 2010](#)  (NAHB)
- [Fire Sprinklers and Homeowners Insurance](#)  (Sept. 14, 2007, NAHB)
- [NAHB's Content and Economic Review of NFSA White Paper](#)  (critically reviews Nat'l Fire Sprinkler Association's white paper, "Residential Fire Sprinklers for Life Safety")
- [Fire Sprinklers: Problems with NFPA 13D](#)  (NAHB, Feb. 8, 2008)
- [The Priced-Out Effect of Raising Interest Rates or Costs](#)  (NAHB, 2005)
(Demonstrates how home buyers are priced out of the market when costs are raised;

meaning for the fire sprinkler debate that many homebuyers interested in a newly constructed home will opt to remain in their older homes or buy another existing older home, subjecting them to greater fire safety risk.)

For any and all of the above reasons, including reasons outlined in the backup documentation, we urge you to delete section R313 from the 2009 IRC without substitution.

We remain available to answer any questions and to work with the Subcommittee, the full Codes and Standards Committee, and the State Building Inspector as the code development process moves forward through all its many steps to completion, including assisting the Department in gaining approval of the code from the legislature's Regulations Review Committee.

We appreciate the opportunity to comment on this important matter. Thank you.