



**International Code Council**  
500 New Jersey Avenue, NW  
Sixth Floor  
Washington, DC 20001  
tel: 888.icc.safe (422.7233)  
fax: 202.783.2348  
[www.iccsafe.org](http://www.iccsafe.org)

July 20, 2011

Tina Faecke, Engineering Laboratory  
National Institute of Standards and Technology  
Mail Stop 8604  
Gaithersburg, MD 20899-5911

Federal Register Notice of July 12, 2011, **Docket No.: 110701366–1365–01**

Dear Ms. Faecke:

We are providing these comments in response to the above noted Federal Register notice, for the benefit of the NCST formed on June 29, 2011, to examine the tornado that touched down in Joplin, MO.

In the wake of the tornados and severe weather that have recently torn across the country, claiming lives and destroying buildings, the strength and stability of the structures we use to protect us from the elements has been thrust to the national forefront.

We would first note that the state of Missouri has no statewide adopted building codes, which should certainly be re-examined in the light of this most recent disaster. All available evidence indicates that the adoption and enforcement of current building codes reduces damage, and prevents loss of life from natural disasters. Widely cited research conducted by Mississippi Sate University indicated that 80% of the damage from Hurricane Katrina would have been avoided had a strong building code been in place at the time of that disaster.

While Joplin has a long history of code adoption and enforcement, we note that it has not yet adopted the 2009 International Residential Code (IRC) or the 2009 International Building Code (IBC), which both contain significant improvements that have relevance to the recent tornado event in Joplin.

The 2009 IRC code, as written, requires that storm shelters, when included as shelters in a home, be built in compliance with the ICC/NSSA Standard for the Design and Construction of Storm Shelters (ICC 500-2008). This standard applies to design, construction, installation and inspection of storm shelters constructed as separate detached buildings or constructed as safe rooms within buildings for the purpose of providing safe refuge from wind storms.

As devastating as it is to lose a home, place of business, a church or a school, nothing compares to losing a family member. While it is all but impossible to construct a functional home or workplace to withstand the full force of a mile-wide F5 tornado, it is nevertheless both possible and practical to construct shelters- both free-standing and within homes- that can bear the brunt of a catastrophic storm and keep people from harm. For the benefit of the Task Force, we have included a copy of the ICC/NSSA 500 standard with this letter. Additional copies are available upon request.

As with all of our codes, the IRC and IBC is developed by the local officials who inspect, and the industry participants who build and equip homes and commercial buildings. Every state that adopts building codes uses the IRC and IBC at the state or local level, because these codes are developed, maintained and supported with extensive training and support publications after they are adopted.

In short, we would suggest that the NCST task force on the Missouri tornado examine the following policies and endorse them as part of its report on mitigating future disasters and the loss of life and property damage that accompanies them:

1. Recommend statewide adoption of the most recent model residential and building codes, the 2009 or 2012 IRC and IBC, including wind and seismic provisions, as regionally appropriate.
2. Recommend the dissemination and use of the ICC/NSSA 500 Standard for the Design and Construction of Storm Shelters throughout areas with a history of tornados.
3. Encourage all re-construction to conform to the most current model codes (IRC and IBC) available at the time of the reconstruction.
4. Encourage all local jurisdictions to follow the lead of the City of Joplin in establishing a strong building code adoption, permitting and enforcement system.

Sincerely,

David L. Karmol  
VP, Federal and External Affairs,  
International Code Council

Enclosure: ICC/NSSA 500 Standard