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February 28, 2025

Regulations Division
Office of General Counsel
Department of Housing and Urban Development
451 7th Street SW, Room 10276
Washington, DC 20410-0500

Submitted via the Federal eRulemaking Portal at http://www.regulations.gov

RE: Department of Housing and Urban Development, Docket No. FR-6505-N-01 / American Society of Civil Engineers comments on Request for Information Regarding Resilience Measures and Insurance Coverage.

The American Society of Civil Engineers (ASCE)[1] is pleased to offer the following comments to the Department of Housing and Urban Development request for Information Regarding Resilience Measures and Insurance Coverage posted on December 30, 2024, with the comment period closing on February 28, 2025.

Introduction

ASCE firmly believes that the single most effective measure to ensure resilience of insured properties, as well as all forms of infrastructure, is the adoption of modern, up-to-date building codes. Responsible design and construction are essential to assure safety and durability, and to reduce vulnerability to hazards. Modern building codes establish minimum, cost-effective, requirements necessary to protect the built environment. Building codes address concerns related to structural collapse, general deterioration, and extreme loads related to human-caused and natural hazards. They are also created to conserve natural resources, reduce ownership and operating costs, and preserve the environment by establishing minimum building standards. Safe and sustainable buildings are achieved through code-based design and

[1] Founded in 1852, ASCE is the country's oldest civil engineering organization. Representing more than 150,000 civil engineers from private practice, government, industry, and academia, ASCE is dedicated to the advancement of science and practice of engineering. ASCE members represent the profession that plans, designs, and builds much of the nation's infrastructure.

construction practices in concert with a code administration program. National model codes serve to reduce construction costs by establishing uniformity in the construction industry as well as minimizing disaster recovery and reconstruction costs. This uniformity permits building and material manufacturers to do business on a larger scale statewide, regionally, nationally, or internationally. This larger scale, in turn, creates cost savings for the end consumer. Codes also help protect real estate investments, both commercial and non-commercial, by providing a minimum level of engineering design and construction quality thereby reducing variability in the built environment.

The National Institute of Building Sciences (NIBS)[2] has concluded that adopting the latest building code requirements is not only affordable but saves $11 per $1 invested. NIBS concludes that building codes have greatly improved disaster resilience, while adding only about 1% to construction costs relative to 1990 standards and that the greatest benefits accrue to communities using the most recent code editions. Furthermore, a recent Federal Emergency Management Agency (FEMA) study[3] entitled Building Codes Save included an analysis which clearly demonstrated that over a 20-year period, cities and counties with modern building codes have avoided at least $132 billion in losses from natural disasters. Simply stated, building codes work and, if properly implemented, would enhance access to and the affordability of insurance.

Background

Model building codes are developed by experienced volunteer professionals working together under a multi-step, consensus-based process. Most professional engineering organizations maintain code development committees that initiate code provisions based on the practice in their technical areas and are often augmented by research. Topics for code provisions are often introduced in study reports or research papers. In time, many of these provisions are gathered and published as design guidelines. Eventually the guidelines are transformed into standards and incorporated into the model code. ASCE, as a premier American National Standards Institute (ANSI)-approved standards organization, develops and maintains many of the standards referenced or incorporated in the model codes. Through a thoughtful and extensive process, ASCE assures that each standard represents a broad consensus of the related professional community. The standards developed by the U.S. voluntary consensus standards system empower our nation domestically and globally. For many years, local, state, and federal governments have maintained a strong and effective reliance on the non-government sector for development and maintenance of the standards at use across all sectors of our economy. There is a high level of interdependence between the viability of local communities and the national economy. The traditional assumption that local jurisdictions could determine the level of safety and quality to which they would build has yielded to the recognition that uniform national standards are needed to ensure that the economic impact on the nation is controlled.

[2] Mitigation Saves, National Institute of Building Sciences, 2020
[3] Building Codes Save: A Nationwide Study, Federal Emergency Management Agency, 2020

These national standards are best delivered in a modern, effective national model code that local jurisdictions should be encouraged to adopt and enforce.

Modern building codes and ASCE consensus standards are tailored to risks faced in specific locations and are designed to mitigate against the most prevailing hazards. Additionally, the setting of state and local building codes is not effective unless accompanied by enforcement.

ASCE Standards

ASCE engages in the standards setting on a large scale. ASCE Standards provide technical guidelines for promoting safety, reliability, productivity, and efficiency in civil engineering design and construction of the built environment. Many of our standards are referenced by model building codes and adopted by state and local jurisdiction. They also provide guidance for design projects around the world. As an ANSI-accredited standards development organization, ASCE has a rigorous and formal process overseen by the Codes and Standards Committee (CSC). Standards are created or updated by a balanced, volunteer standards committee, followed by a public review period.

Developing standards that incorporate the best available hazard data and undergo a comprehensive peer review process help ensure that buildings and other structures are safe and resilient to natural disasters and from all perils. Following ASCE standards improves community resilience and can help reduce the risk of damage, injury, and loss of life during extreme events. More resilient infrastructure can also minimize the cost associated with rebuilding after a major event.

The following ASCE standards offer a sound basis upon which model codes can be developed:

- ASCE 7, *Minimum Design Loads and Associated Criteria for Buildings and Other Structures* (ASCE/SEI 7-22), currently an integral part of U.S. building codes, describes the means for determining soil, flood, tornado, tsunami, snow, rain, atmospheric ice, earthquake, and wind loads, and their combinations for resilient structural design.
- ASCE 24, *Flood Resistant Design and Construction* (ASCE/SEI 24-24), prescribes a standard for cost effectively increasing resilience by reducing and eliminating risks to property from flood hazards and their effects.
- ASCE 41, *Seismic Evaluation and Retrofit of Existing Buildings* (ASCE/SEI 41-23), standardizes methods for the retrofit of existing buildings to increase resilience in communities after a seismic event; and
- ASCE 73, *Standard Practice for Sustainable Infrastructure* (ASCE/COS 73-23), defines how to develop and implement sustainable infrastructure solutions through the entire infrastructure life-cycle process.

ASCE has furthered its standard development efforts by creating the ASCE Hazard Tool (www.ascehazardtool.org). The tool provides a quick, reliable way to look up hazard data for the above ASCE standards for seven perils including tornado, wind, seismic, ice, rain, snow,

flood, and tsunami, to determine multiple types of hazard loads for buildings and other structures.

Comment on Specific Questions

Question for comment #12 -- On September 19, 2022, ASCE provided comments to the Department of Housing and Urban Development on the proposed rulemaking to update the Federal Manufactured House Construction and Safety Standards Docket (No. FR-6233-P-01).[4] In those comments ASCE urged HUD and the Manufactured Housing Consensus Committee (MHCC) to recommend all manufactured home construction and safety standards incorporate modern codes and standards by reference, to priorities human health, safety, and welfare. While not specifically addressed, ASCE believes that in addition to protecting life, such action would enhance access to and the affordability of insurance.

Conclusion

ASCE once again thanks HUD for the opportunity to express our views and to reiterate our belief that modern, up to date, enforced building codes and use of consensus standards are the single most effective method to ensure resilience in the built environment, and therefore an effective method to reduce the cost and increase the affordability of property insurance. ASCE is happy to work with HUD to find ways to advance the use and effectiveness of building codes.

If you need more information or ASCE can be of further assistance, please do not hesitate to contact Martin Hight, ASCE's Senior Manager for Government Relations at mhight@asce.org or 202-789-7843.

[4] ASCE Comments to the Department of Housing and Urban Development, Federal Manufactured Housing Construction and Safety Standards, September 19, 2022.