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ICC Annual Banquet
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Ladies and Gentlemen, it is my distinct pleasure and privilege to be here this evening and to make opening remarks at your Annual Banquet. Some of you may be expecting that I will talk about the World Trade Center Investigation or the code change proposals based on the investigation's recommendations. I intend to do neither!

The National Institute of Standards and Technology (NIST) and the International Code Council (ICC), and their predecessor organizations, have a rich and sustained history of cooperation and partnership that builds on our deep and shared dedication to building safety and fire prevention. Many of you probably know of, or have worked with, my predecessors—Dick Wright, Jack Snell, and Jim Hill. At the request of NIST Director Bill Jeffrey, Jim Hill is now serving as acting deputy director for all of NIST.

For those of you who may not know much about NIST, we are a non-regulatory agency of the U.S. Department of Commerce and were created more than a century ago. Our mission is to promote U.S. innovation and industrial competitiveness by advancing measurement science, standards, and technology in ways that enhance the Nation's economic security and improve our quality of life.

Based just outside Washington, D.C. on an idyllic 600-acre campus, we have about 2,800 employees and an additional 1,800 guest researchers. Among our 1,500 world-class scientists and engineers, are three Nobel Prize winners, a National Medal of Science winner, a MacArthur "genius" Fellow, and several inductees to the National Academies.

You may also be interested to know that in this year's State of the Union address, the President outlined the American Competitiveness Initiative (ACI) which will improve the Nation's infrastructure for innovation and thus enhance our overall competitiveness. As part of the drive to increase the nation's investment in research, the ACI calls for doubling over the next ten years the funding for the National Science Foundation, the Department of Energy's Office of Science, and NIST. Thus, NIST is poised for a period of sustained growth.

I am the acting director of NIST's Building and Fire Research Laboratory, which is one of the seven Laboratories at NIST and is the Nation's primary federal laboratory dedicated to the building and fire safety communities. Our mission is to meet the measurement and standards needs of these communities and we strive to be *the* source of critical tools that are *used* to modernize these communities. A major focus of our work is to provide the technical basis for the revolutionary transformation that is well underway from prescriptive to performance-based practices, standards, and codes.

Measurements and standards play multiple key roles in our economy and, most assuredly, in the $1.5 trillion per year construction industry that we here serve—a giant industry which represents about 12 percent of U.S. GDP and 11 million workers. The U.S. also spends nearly $600 billion per year in facility operation and maintenance costs, with nearly $500 billion for energy alone.

In the building and fire safety communities, measurements and standards are used to:

- enable innovation and competitiveness,
- assure public health and safety,
- facilitate market access,
- affix responsibility and liability, and
- ensure equity in domestic and international trade.

As a result of my Laboratory's measurements and standards mission, we work hard to get our products used in building and fire practices, standards, and codes.

- We ***listen*** to major national bodies to identify priority issues,
- We ***organize*** workshops to define the problem, approach, and desired products,
- We and our partners ***develop technical basis*** for potential change to practices, standards, and codes,
- We generally seek ***performance-based solutions*** to foster open systems and processes, thus facilitating innovation and competitiveness,

- We participate in ***international standardization*** activities and work closely with overseas counterparts to maintain awareness, push open systems, and spot barriers to trade,
- We work with intended users to ***demonstrate value in use*** of the emerging product, and
- We ***participate*** in technical, standards, and codes committees, and publicly disseminate our products.

Ultimately, of course, it is left to technical, professional, standards and/or code development organizations such as ICC to adopt changes, state and local officials to develop and enforce regulations, and industry to use the new practices, standards, and codes.

Our Laboratory staff participates actively on nearly 100 different building and fire standards and codes development committees, subcommittees, and task groups. We also have significant and specific statutory responsibilities assigned to us, for example, under the Fire Prevention and Control Act of 1974, the National Earthquake Hazards Reduction Reauthorization Act of 1977 that was amended in 2004, the National Windstorm Impact Reduction Act of 2004, the National Construction Safety Team Act of 2002, and the NIST Organic Act.

Some of you may know that in 2004, Congress designated NIST to be the lead federal agency for the $125 million per year National Earthquake Hazards Reduction Program. You may also know that in recent years, we conducted the World Trade Center investigation, the investigation of the Rhode Island Station Nightclub fire, and a reconnaissance study on the performance of physical structures in Hurricane Katrina and Hurricane Rita.

At this moment, we as a profession and a Nation face five significant technical challenges:

- first, to make our structures and communities resilient to disasters;
- second, to reduce fire losses, especially fatalities in residential construction;
- third, to ensure sustainable development by incorporating energy efficiency and renewable energy technologies;
- fourth, to reduce costs associated with inadequate interoperability by integrating our fragmented and project-based construction supply chain using information and automation technologies; and

- fifth, to enable innovations in high volume applications such as paints, coatings, sealants, and flame retardants by exploiting the tremendous promise of nanocomposite materials.

In light of our mission, the nature of our new and expanding responsibilities, and these national challenges, we at NIST see the need for an increasingly closer and strategic relationship with standards and codes organizations, and ICC is a key organization for us. There are numerous examples of how our two organizations have fruitfully cooperated in the past. Let me cite a few.

- NIST and ICC staff members have excellent working relationships, in some cases going back 25 years. Several provisions in current IBC codes can be traced back to research that was done at NIST—or what then was known as the National Bureau of Standards—many decades ago.
- ICC has educated and informed NIST on the code development process and how codes are adopted and implemented to assist NIST with following up on our recommendations from the WTC investigation report. ICC also submitted a number of comments on the draft WTC investigation report.
- NIST has helped ICC in scoping out ICC's efforts related to interoperability.
- ICC works closely with NIST on international programs supporting collaboration between U.S. and other countries in codes, standards, and conformity assessment issues. ICC and NIST collaborated on a recent U.S. mission to Colombia dealing with codes and structural issues for buildings. And, just a several weeks ago, NIST organized with ICC participation a workshop to inform and educate building code officials and experts from Iraq on the U.S. system.
- NIST refers manufacturers to the ICC Evaluation Service for assistance on product acceptance and the ICC Evaluation Service provides assistance. In addition, ICC has assisted some of NIST's efforts related to product durability.
- A NIST staff member served on the ICC Performance Code drafting committee and the code committee. In addition, NIST staff members now serve on ICC's Means of Egress committee and Code Technology Committee.
- Finally, ICC's Deputy COO Dominic Sims served on the multi-organizational team—coordinated by NIST and made up of experts from private-sector, academic and federal

entities—that evaluated the performance of physical structures in the aftermath of Hurricane Katrina and Hurricane Rita.

This is indeed an impressive list of cooperative activities. I very much look forward to our two organizations continuing to build on these strong, well-established, and healthy ties as we look to the future. NIST has many programs that provide research that can benefit the ICC and through these programs many connections with academia and industry that also can benefit ICC.

We were very happy to host a visit to NIST by ICC's CEO Rick Weilland several months ago and to explore possible new opportunities for cooperation. And, on a personal note, this is my first visit to an ICC Annual Conference and Code Hearings. I am very impressed by your open, inclusive, and comprehensive process.

In concluding, I want to acknowledge the vital role the ICC and each of you gathered here tonight serves in our Nation's code development process. That includes ICC staff, code enforcement and fire officials, the fire service, industry practitioners, and technical experts from academia and research organizations. We owe you our deep gratitude for the critical—and largely behind the scenes—work you do day-in and day-out to protect our public health, safety and welfare in the built environment. You, truly, are among our Nation's heroes.

Thank you very much.