

Building Codes Update

Fuel Cell Summit

May 10, 2000

Robert Brown
International Code Council



International Code Council

- Established in 1994 by BOCA, ICBO, SBCCI to:
 - Develop and maintain a single set of comprehensive and coordinated codes without regional limitations – the *International Codes*™
 - Coordinate related support activities, including training materials and manuals
 - Address emerging technology and concepts and coordinate their treatment in codes and standards
 - Incorporate performance-based concepts in codes and standards

ICC Mission Statement

- Promulgate a comprehensive and compatible regulatory system for the built environment through consistent performance-based regulations that are effective, efficient, and meet government, industry, and public needs

The *International Codes*™

- Health and Safety
 - Safeguard public safety and health by regulating the built environment through consistent and proven codes and standards
- Economic Development
 - Enhance economic development by keeping in step with and through widespread adoption and consistent application of state-of-the-art technology

The *International Codes*™

- Innovation
 - Advance innovation through performance-based model regulations
- Streamlining
 - Promote streamlining of the regulatory process through a single family of coordinated codes
 - Bring consistency and compatibility to multiple layers of requirements that exist at the federal, state and local levels of government

2000 *International Codes*™

- *International Building Code*™
- *International Residential Code*™
- *International Fire Code*™
- *International Energy Conservation Code*™
- *International Fuel Gas Code*™
- *International Mechanical Code*™
- *International Plumbing Code*™
- *International Zoning Code*™
- *International Property Maintenance Code*™

New Technology Acceptance

- Code changes
- Performance codes
- Product evaluations

ICC Code Change Process



2000 International Mechanical Code

Section 924

Stationary Fuel Cell Power Plants

924.1 General. Stationary fuel cell power plants having a power output not exceeding 1000 kW, shall be tested in accordance with ANSI Z21.83/CGA 12.10 and shall be installed in accordance with the manufacturer's installation instructions.

2000 Code Development Cycle

- International Fuel Gas Code
 - FG 22-00 - Introduces language identical to IMC 924
 - Approved as Submitted (AS)
 - Subject to final action

Ad Hoc Committee on Hydrogen

- Scope
 - Vehicular and portable fuel cells
- Purpose
 - Evaluate impact of hydrogen on supporting infrastructures
 - service stations
 - parking garages
 - loading areas
 - similar uses
 - Develop code language
 - Provide education and outreach

Ad Hoc Committee on Hydrogen

- Composition
 - 3 code officials
 - 3 industry representatives
 - 3 designers
- Submit resume by 5/12/2000

Prescriptive or Performance?

- Prescriptive requirements
 - Empirically derived using judgment of experts or field experience
 - Expected level of performance is unknown
- Performance-based requirements
 - State the intended result
 - Accompanied by analytical tools or methodologies to demonstrate an end result

Performance Requirements

- Objective - “What”
- Functional Statement - “Why”
- Performance Requirement - “How”
- Acceptable Solutions

Performance Codes

■ Benefits

- Flexibility/Functionality
- Cost reduction
- Safer buildings
- Reduction in redundancy
- A more logical way of thinking

Performance Committee

■ Goals

- Develop the intent of a performance-based building code for one or more levels of accepted risk
- Develop related functional objectives and performance requirements to achieve the defined objective

Performance Code

- International Performance Code for Buildings and Facilities
 - August 2000 Draft
 - One code development cycle
 - November 1, 2000 deadline
 - Spring 2001 hearings
 - Fall 2001 final hearings
 - 2002 Edition

For More Information...

- Phone: (703) 931-4533
- Fax: (703) 379-1546
- Web: <http://www.intlcode.org>