

ICC Update - Laboratory Issues Code Changes / Proposals / Trends of Interest – 10/2005

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14 International Codes, including

- **International Building Code**
- **International Fire Code**
- **International Mechanical Code**
- **International Plumbing Code**
- **International Fuel Gas Code**
- **International Energy Conservation Code**
- **ICC Electrical Code**
- **International Residential Code**
- **Other**

International Code Adoption

- **International Building Code – 45 states and Washington DC**
- **International Fire Code – 36 states and Washington DC**
- Source – ICC Website – 10/7/05

Code Development Process

- **Three Year Cycle**
- **Public Comment Submission**
- **Public Hearings – Code Committees Vote**
- **Final Action Hearings – Code Officials Vote**
- **Cycle Repeats**
- **States Adopt Codes w/wo Modifications**
- **State Codes May Trail Latest ICC**
- **State / Local Procedures for Code Changes**

Observations

- **Hard Working Professionals – Interested in Doing What Is Right**
- **Good Code Official - Wealth of Information**
- **Code Compliance Official's Work Scope is Broad / Deep**
- **KISS Principle is Key**

Recommendations

- **Assure Someone at Your Site is Connected with Local Code Development Process**
- **Establish Good Working Relationship / Trust**

Proposals

- **Abundant and Growing**
- **Drivers – Safety, Clarification, Simplification, Marketing, Self Protection**

Selected Proposals which may affect Research Operations – From 2005 ICC Public Hearing and Final Action Hearing

- **Proposals that Follow are just a few of many reviewed – subjectively selected for interest to universities / research labs**
- **Those approved will be part of 2006 International Codes**

Nomenclature Utilized

- Prefix Letter in Proposal
 - M = Mechanical Code Proposal
 - G – Building Code Proposal
 - F – Fire Code Proposal
 - E – Building Code – Means of Egress
- Result of Committee / Code Officials Voting
 - D – Disapproved
 - AS - Approved as Submitted
 - AM – Approved as Modified
 - AMPC# = Approved as Modified by Public Comment #

ICC Public Hearing – 2/05

Selected Proposals and Results

M67-04/05 - Proposes to add an exception for valve-regulated lead-acid battery systems for UPS for IT from the requirements for providing a hazardous exhaust system. (Section 510.2). – D

Note - See

<http://www2.umdnj.edu/eohssweb/aiha/technical/PublicComment4.pdf>

Or the 2004 Supplement to the International Codes, IMC Section 510, for lab exhaust changes approved for the 2006 IMC.

ICC Final Action Hearing – 9/05

Selected Proposals and Results

G83-04/05 - Adds New Definition of “Basement” and “Story above Grade”. Includes drawing for clarity. (Section 202, 502.1) – AS

ICC Final Action Hearing – 9/05

Selected Proposals and Results

F206-04/05- Proposes a new section and exceptions for testing requirements for emergency control and detection systems (Section 2703.2.9) - AS

ICC Final Action Hearing – 9/05

Selected Proposals and Results

E37/38/44-04/05 - Addresses various concerns regarding Access Controlled Egress Door section. (Section 510.4). – Each of three proposals - D

ICC Final Action Hearing – 9/05

Selected Proposals and Results

F34-04/05 - Adds additional conditions to the requirement for an approved fire safety and evacuation plan. (Section 404.2) – AMPC1

Group B – 500 persons or more or more than 100 persons above or below the lowest level of exit discharge.

ICC Final Action Hearing – 9/05

Selected Proposals and Results

F213-04/05- Proposes new section stating requirements for the design, construction, testing, marking, and maintenance of pressure vessels (Section 3003.2). – AM

ICC Final Action Hearing – 9/05

Selected Proposals and Results

F135-04/05- Proposes option of using supervised, listed electronic monitoring device in lieu of annual fire extinguisher maintenance. (Section 906.2) AMPC2

Per NFPA 10

<http://www.mija.com/pdf/ENGauge-ppt.pdf>

ICC Final Action Hearing – 9/05

Selected Proposals and Results

M71-04/05 - Proposes to add text to permit recirculation of air from exhaust from conveying systems provided contaminants have been removed a minimum efficiency of 99.9 percent at 10 microns, vapor concentrations are less than 25% of LEL, and approved equipment is used to monitor the vapor concentration. (Section 511.1.3) – AS

ICC Final Action Hearing – 9/05

Selected Proposals and Results

M73-04/05 - Proposes to revise text to permit recirculation of air from exhaust if in compliance with sections 510 and 511. (Section 514.2) – D

ICC Final Action Hearing – 9/05

Selected Proposals and Results

M70-04/05 - Proposes an exception to permit collectors in independent exhaust systems handling combustible dusts to be installed indoors if installed in compliance with the IFC and ICC Electrical Code. (Section 511.1.1). - AS

ICC Final Action Hearing – 9/05

Selected Proposals and Results

F180-04/05 - Proposes an entire new section for safety controls for subatmospheric gas systems based on reduced hazard potential (Section 1803.16 (new) -D

ICC Final Action Hearing – 9/05

Selected Proposals and Results

F230-04/05- Proposes to allow Class 1 liquids in basements if in accordance with limits in Table 2703.1.1(1) and provided that automatic suppression and other fire protection are provided in accordance with Chapter 9. (Section 3404.3.5.1) - AS

ICC Final Action Hearing – 9/05

Selected Proposals and Results

F231-04/05- Proposes to allow Class 1 liquids in basements if in accordance with a new section 3404.3.5.2. This section provides suggested text on separation, ventilation, storage, secondary power, container sizes, storage cabinets, sprinkler protection, duct fire suppression, among other topics as well as proposing to add a new section with definitions for laboratory and laboratory unit. (Section 3404.5.1, 3404.3.5.2(new), 3402.1(new)). - D

ICC Final Action Hearing – 9/05

Selected Proposals and Results

F205-04/05 - Proposes limits for radioactive isotopes in control areas (Table 2703.1) - D

ICC Final Action Hearing – 9/05

Selected Proposals and Results

F182-04/05- Proposes changes to open and closed system chemical baths due to increase in wafer sizes. (Table 1805.2) - AS

ICC Final Action Hearing – 9/05

Selected Proposals and Results

M28-04/05 - Proposes that new sections be added to 403 to address variable air volume distribution systems. Includes use of carbon dioxide sensors for feedback - adjustments on outdoor air rates as well as other design, hardware, balancing, and documentation issues. (Section 403.3.3 , 403.3.4 and various new sections within). - D

ICC Final Action Hearing – 9/05

Selected Proposals and Results

M19-04/05 - Proposes that ASHRAE Standard 62.1 be used as an alternative to Section 403 for design of mechanical ventilation systems with calculations and documentation supporting design submitted to the code official for approval. (Section 401.2.1 (new)). - D

ICC Final Action Hearing – 9/05

Selected Proposals and Results

M17-04/05 - Proposes water level detection devices in primary drain pan where installation of a secondary pan is not possible. (Section 307.2.3.1 (new) – AMPC1 – P1 – AM – P2

ICC Final Action Hearing – 9/05

Selected Proposals and Results

M16-04/05 - Addresses auxiliary and secondary drain systems where condensate is produced. Proposes water level detection devices in pans conform to UL 508. (Section 307.2.3). - AS

ICC Final Action Hearing – 9/05

Selected Proposals and Results

F14-04/05 - Proposes that “any amount” of pyrophoric gas require a permit – (Section 105.7.6) - AM

ICC Final Action Hearing – 9/05

Selected Proposals and Results

F58-04/05 - Modifies text regarding use of detection systems for refrigerant gases. (Section 606.8) - AS

Detection required for ammonia systems

ICC Final Action Hearing – 9/05

Selected Proposals and Results

F36-04/05 - Adds “at least annually” to text requiring emergency evacuation drills (Section 405.1) - AS

ICC Final Action Hearing – 9/05

Selected Proposals and Results

F61-04/05 - Expands requirements for ventilation, spill control, etc. for storage battery systems. (Section 608) – AS

> 50 gallon electrolyte or 1000 lb – lithium ion

ICC Final Action Hearing – 9/05

Selected Proposals and Results

F134-04/05- Clarifies locations where fire extinguishers are required where quick response sprinklers are installed. (Section 906.1) AS

For Groups A, B, and E – 30ft of commercial cooking, where flammable and combustible liquids, where structures under construction, sections in Table 906.1, and special hazard areas, laboratories, computer rooms, generator rooms

ICC Final Action Hearing – 9/05

Selected Proposals and Results

F181-04/05 - Proposes increase in allowable storage quantities in HPM fabrication areas by restricting quantities in excess of existing code limits in liquid storage rooms, HPM rooms, or gas rooms as appropriate for the materials stored. (Section 1804.2.2.2). - AS

ICC Final Action Hearing – 9/05

Selected Proposals and Results

F233-04/05- Proposes new section to permit alcohol based rubs in corridor mounted dispensers. Includes specifications for mounting dispensers (Section 3405.5 (new)). – AMPC1,2

ICC Final Action Hearing – 9/05

Selected Proposals and Results

M37-04/05 - Proposes to expand requirements for direct connection of local exhaust to stationary motor vehicle exhausts and vents to those which are mobile for 10 seconds or greater indoors, excepting open air garages, public garages, and dwellings not contained with four walls. (Section 502.14). - D

Other Observations

- **Technology Advances Showing Up in Proposals – Fire Extinguisher Inspections, Drain Pans, Fryer Exhaust, Egress Doors, CO2 sensors, Building Pressurization, others**
- **Overwhelming Process for Code Officials and membership - Some flawed proposals may be accepted, some worthy may be rejected**
- **Tactics for Success – Use of Consultants, Alliances, Thoroughness, Simplicity**