



**ICC CODE TECHNOLOGY COMMITTEE  
MEETING #8**

**DRAFT MINUTES**

**Hilton Kansas City Airport  
8801 NW 112<sup>th</sup> Street  
Kansas City, MO 64153  
(816) 891-8900**

**Thursday, October 19: 1:00 pm – 5:00 pm**

**Friday, October 20: 8:00 a.m. – 5:00 p.m.**

**1.0 Welcome and introductions - Chair Heilstedt**

**1.1 Call to order; introductions; welcoming remarks**

Chair Heilstedt called the meeting to order at 1:00 pm on October 19<sup>th</sup>, welcoming those in attendance and requested self introductions.

Members present (company/representation): Shahriar Amiri (self), Carl Baldassarra (Schirmer Engineering-Vice Chair), Dave Collins (AIA), Paul Heilstedt (self- Chair), Steve Jones (self), Marsha Mazz (US Access Board), Ron Nickson (arrived late, NMHC), Paul Tellez (self), Jeff Tubbs (self, Alternate to Meacham)

Members absent: Dick Bukowski, Ray Kothe, Brian Meacham, Robert Salvaggio

Staff liaison: Mike Pfeiffer

Attendees: A list of attendees is provided at the end of these minutes.

**2.0 Approve agenda**

Approved

**3.0 Approve minutes of CTC Meeting #7 September 6 - 8, 2006**

Approved

**4.0 Establishment of Study Groups**

**4.1 Review checklist of key considerations when appointing a study group**

No report at this time

**5.0 Climbable Guards**

**5.1 Public Hearing – Code change E97-06/07**

The CTC reviewed Draft Interim Report No. 2 dated October 19<sup>th</sup>. This report is a compilation of 2006 Cycle code change E97-06/07 with modifications developed by the CTC at the September 6<sup>th</sup> meeting. It was noted that the modification developed by the CTC was also proposed at the Orlando Code Development Hearing by the proponent of E97 but was ruled out of order by the Means of Egress code committee chair.

This draft was reviewed within the context of a 2-story building with an exterior stair from the second floor leading to a concrete landing area. Adjacent to the landing area, approximately 3 – 4 feet, was a retaining wall built out of railroad ties. (See the picture on page 2 of these minutes).



The discussion focused on whether or not such a configuration would be regulated by the proposed text. It was noted that as part of the exit discharge portion of the means of egress, this text was viewed as applicable. Questions were posed as to whether or not there was a distance beyond the 3 – 4 foot dimension where the space adjacent to the retaining wall would no longer be part of the exit discharge as it would be assumed that the normal path of exit discharge travel would not result in the occupant being in the vicinity of the retaining wall. This went undecided.

CTC position: Submit a public comment on the disapproval of E96-06/07, revising the proposal to read as follows:

**1013.1 Where required.** Guards shall be located along open-sided walking surfaces, including mezzanines, industrial equipment platforms, stairways, stairs, ramps and landings, that are located more than 30 inches measured vertically to the floor or grade below at any point within 36” horizontally to the edge of the open side above the floor or grade below. Guards shall be adequate in strength and attachment in accordance with Section 1607.7. ~~Where glass is used to provide a guard or as a portion of the guard system, the guard shall also comply with Section 2407.~~ Guards shall also be located along glazed sides of stairways, ramps and landings that are located more than 30 inches (762 mm) above the floor or grade below where the glazing provided does not meet the strength and attachment requirements in Section 1607.7.

Exception: no change

**R312.1 Where Guards required.** ~~Porches, balconies, ramps or raised walking floor surfaces located more than 30 inches above the floor or grade below shall have guards not less than 36 inches in height. Open sides of stairs with a total rise of more than 30 inches above the floor or grade below shall have guards not less than 34 inches in height measured vertically from the nosing of the treads.~~ Guards shall be located along open-sided walking surfaces, including porches, decks, balconies, mezzanines, stairs, ramps and landings, which are located more than 30 inches measured vertically to the floor or grade below at any point within 36” horizontally to the edge of the open side. Insect screening shall not be considered as a guard.

~~Porches and decks which are enclosed with insect screening shall be equipped with guards where the walking surface is located more than 30 inches above the floor or grade below.~~

## 5.2 Study Group Status Report

Tom Zuzik presented a Power Point entitled “NEF-NOMMA NEF progress report presented to the ICC/CTC October 19, 2006”. The presentation provided a status report on the activities related to enlisting qualified

independent researchers. The following timeline was noted in the presentation:

- October 19<sup>th</sup>: Present status report
- December 13<sup>th</sup> : Present to CTC – identify researcher and methodology
- February- March/2007: Produce preliminary findings
- April – May/2007: Report to CTC
- August/2007: Findings form the basis for 2007/2008 code changes

It was noted that many of the problems seem to be with existing buildings. To date the CTC has not investigated the code requirements for existing buildings. If the research indicates that this is an area to pursue, it is within the CTC's area of study to investigate. To date, there is not enough information identified to determine the impact of climbability.

## **6.0 Review of NIST WTC Recommendations**

### **6.1 Public Hearing - CTC Report – Evacuation plans (cont'd from Meeting #7)**

The CTC reviewed Draft Interim Report No. 2 dated August 30<sup>th</sup>. The discussion focused on the best location in the IBC for text dealing with evacuation plans. The potential locations were identified as:

Section 106: Construction documents

Section 1001: Means of egress administration

Section 3401: General provisions for existing buildings

It was noted that code change E2-06/06 deals with a similar subject. This proposal was submitted to Section 1001 but was disapproved at the Orlando hearings. A motion to submit a public comment for "As Submitted" to E2 failed. A follow-up motion to submit a public comment which includes the language from the public hearing report as replacement language to E2 passed.

## **7.0 Day Care/Adult Care/Assisted Living**

### **7.1 Working Meeting – Report from Study Group\***

Steve Jones indicated that the study group met yesterday afternoon and this morning, developing a report dated October 19<sup>th</sup>. He presented the report, noting that the intent was to identify, based on the number, age and self evacuation capability of the occupants receiving care whether the occupants required any special needs/accommodations to ensure their ability to evacuate the building.

The threshold of 2.5 years of age and the number of occupants (5 or less, 6 - 16, and more than 16) was based on the current code provisions.

The issues noted included:

- The terminology is "Care facility", not day care or adult care.
- The key consideration is whether or not there was a need for enhanced fire protection – typically a sprinkler system
- NFPA 13 R vs 13 D and the impact a sprinkler system, if any, has on the evacuation capability
- Supervision is considered a licensing issue. The code issue is whether or not the occupants are capable of self evacuation
- Should the code distinguish between a "for profit" application versus one where the care-giver is caring for family members out of their home. Did the "for profit" business require a higher level of safety?
- The relative hazard of where the space is in an otherwise different occupancy (ie care given to adults in an assembly environment vs care given in care center)

The study group will take the report and put together of draft of changes to the code to implement the results of the report.

## **8.0 Child Window Safety**

### **8.1 Study Group Status Report**

There was no report at this time. Dave Collins indicated that the plan would be to schedule a study group meeting in conjunction with the CTC meeting following the January/07 CTC meeting. It was noted that the sooner the study group meets the better as the code change deadline is August/07.

## 8.2 Working meeting

None

## 9.0 *Balanced Fire Protection*

### 9.1 *Public Hearing – Smoke and heat vents*

The CTC reviewed Draft Interim Report No. 2 dated October 19<sup>th</sup>. Paul Simony with the AAMA Smoke and Heat Vent Task Group handed out three documents to the CTC:

“Smoke and Heat Vents: A review of the methodology and the way forward to the next generation”

“Exploratory Modeling in Support of the Development of a Design Method for Smoke and Heat Vents in Sprinklered Facilities”

“Interaction of Sprinklers with Smoke and Heat Vents”

The following was noted by Paul:

- Hughes Associates has been contracted to conduct modeling studies/simulations. The duration is approximately 12 – 18 months
- No evidence exists that the vents interfere with sprinkler operation
- NFPA 204 is the venue for developing design criteria for vent operation

This was followed by a DVD of 5 smoke vent tests, entitled “The Importance of Smoke Vents for Life Safety & Property Protection. The 5 tests included:

1. 50 kg wood fire – no vents
2. 50 kg wood fire – vents opened due to fire and the sprinkler activates
3. 50 kg wood fire – vents opened prior to fire initiation and the sprinkler activates
4. 30 kg polyethylene fire – no vents
5. 30 kg polyethylene fire – vents opened prior to fire initiation and the sprinkler activates

Questions/comments raised:

- The study of roof vents is outside the scope of the BFP area of study
- Modeling – Modeling was done in the 1970’s, debatable as to validity of results. Full scale tests are preferred
- Modeling assumptions – whether or not the mechanical ventilation system is assumed to be running
- Modeling criteria – 3 heat release curves (0-2 sprinklers activate; 2-15 srpklers activate; all sprinklers activate)
- This issue was identified over 10 years ago as an area under study by the industry but the industry has not done anything to date
- Full scale testing is not feasible due to the lack of a building to burn and EPA concerns

CTC disposition:

This issue does fall under the scope of the CTC Balanced Fire Protection area of study. Create a study group.

Among the issues:

- Area (2500 sq. ft.)
- Sprinkler vs non sprinkler operation
- Impact on fire fighting operations
- Review of NFPA 204
- Need criteria for vent design, regardless if vents are mandated by the code

Study group members:

Shahriar Amiri, Chair

Rich Schulte (identified by the CTC albeit not in attendance)

Craig Beyler

Jeff Tubbs noted that he would like to participate as an interested party

### 9.2 *Working meeting – IBC Height and Area*

Dave Collins provided the history on this area of study as it relates to the CTC and the 2006 Orlando Code Development Hearings, noting:

- The subject of height and areas was identified at the September CTC meeting as a specific code

issue to be considered by the CTC.

- Some 28 H&A code changes were submitted in the 2006/2007 cycle - to be considered by the IBC- General code committee. These included a wide range of proposals from: editorial re-writes of sections; consideration of how to handle basements; changing entries in select cells of Table 503; sprinkler trade- offs; maximum building area determination; and a comprehensive re-write of Chapter 5.
- Dave was approached by the Assistant State Fire Marshal of California – Ms. Kate Dargan. Discussion ensued as to how best to handle the code changes under the limiting factors of the hearing process.
- Stakeholders of the height and area code changes were identified, and an agreement was reached to request that the IBC-G committee “disapprove” the code changes in favor of a working group to study the issue and submit a public comment for consideration at the Final Action Hearings.
- Dave and Kate issued a joint statement during the hearings at the time the grouped code changes were to be considered, requesting disapproval and placing the issue on the agenda for the Code Technology Committee as this subject was already on the agenda for the October CTC meeting.
- The CTC held a conference call and appointed the BFP H&A Study Group
- There are 3 meeting scheduled prior to the January 24, 2007 Public Comment deadline. The goal being the submittal of a Public Comment(s) in response to the code changes submitted

Dave introduced Kate Dargan. Kate noted the value of consensus building and that some level of consensus must be reached if the effort is to be successful.

### **9.3 Study Group Status report**

No report.

## **10.0 2006/2007 Code Development Hearings in Orlando**

### **10.1 Review code committee action on code changes related to CTC Areas of Study**

#### **10.2 Develop action plan for possible CTC public comments**

The following code changes were identified for which the CTC would submit a public comment, with the public comment action noted:

Carbon Monoxide:

M41 – To be discussed at December CTC meeting.

Day Care:

G38 Part I – Disapproval. Based on the action taken on G46

G38 Part II – As submitted. This proposal was recognized by the successful floor action as editorial.

Guards:

E96 Parts I and II – As modified. As noted in agenda item 5.1. The CTC further noted the need to revise “adjacent fixed seat-board” to “adjacent fixed seating” in order to respond to one of the code committee’s concerns over terminology. It was further noted that in the public comment, CTC needs to explain the difference between Exceptions 1 and 2 in 1013.2.

RB103 – Disapprove. In favor of E96.

NIST WTC:

S16 – As modified. In anticipation of the ASCE standard being completed and revise the proposed exception to clarify that the testing is not intended to supersede the minimum design pressures in the standard.

G63 – As submitted. Support the concept of the fire service elevator

## **11.0 Old business**

Shahriar Amiri noted the need to bring back the NIST WTC issue of two way communication to the CTC in the Spring/07 for a possible code change in the 2007/2008 cycle.

## **12.0 New business**

Greg Keith introduced a specific code issue under Balanced Fire Protection – smoke migration. He cited

issues such as an inconsistency in code requirements for shafts vs exit enclosures and the need for a comprehensive review of the floor opening/penetration provisions.

It was noted by the CTC that absent a specific, well defined scope of work, this would be a long term project. Greg was asked to bring back a work plan, noting the scope and time frame.

**13.0 Future Meetings/Update CTC Work Plan**

**13.1 CTC Meeting #9: December 13 - 14, 2006: Phoenix; Hotel - Wyndham Phoenix**  
Date location confirmed.

**13.2 Establish tentative meeting #9 agenda**

- Public comments to code changes
- BFP Height and area
- Study group status updates
- Criteria for study groups

**13.3 Tentative 2007 CTC meeting schedule**

CTC Meeting #10 (confirmed): January 5, 2007; Orange County, CA

The following tentative dates were identified:

- CTC Meeting #11: March 29 – 30, 2007
- CTC Meeting #12: June 19 – 20, 2007
- CTC Meeting #13: October 4 - 5, 2007
- CTC Meeting #14: TBD

**14.0 Adjourn**

Chair Heilstedt adjourned the meeting at approximately 11:45 am Friday, October 20<sup>th</sup>.

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**List of Attendees**

<b>Robert Wills</b>	<b>AISI</b>
<b>Rich Walke</b>	<b>UL</b>
<b>Greg Keith</b>	<b>The Boeing Company</b>
<b>Diana Hanson</b>	<b>NADRA</b>
<b>Lang Greiner</b>	<b>Cornell Iron Works</b>
<b>Gerald Jones</b>	<b>NIBS/MMC/NIST</b>
<b>Jeff Inks</b>	<b>NAHB</b>
<b>Brian Sause</b>	<b>NAHB</b>
<b>Dave Cooper</b>	<b>SMA</b>
<b>Michael Pokorny</b>	<b>Montgomery County , MD</b>
<b>Julie Ruth</b>	<b>AAMA</b>
<b>Tom Zuzik</b>	<b>Artistic Railing</b>
<b>Todd Kinniken</b>	<b>Eureka Forge</b>
<b>Tim Ryan</b>	<b>ICC Board of Directors/Overland Park, KS/NIBS</b>
<b>Ruth Hamel</b>	<b>City of Overland Park</b>
<b>Jason Thompson</b>	<b>Masonry Alliance for Codes &amp; Standards</b>
<b>Jim Messersmith</b>	<b>PCA</b>
<b>Robert Polk</b>	<b>NASFM</b>
<b>Allison Crowley</b>	<b>NASFM</b>
<b>Kate Flower</b>	<b>DHI</b>
<b>Jerry Razwick</b>	<b>Technical Glass Products</b>
<b>Dave Bowman</b>	<b>NFSA</b>
<b>Laura Blaul</b>	<b>Orange Co.Fire/California Chiefs</b>
<b>Thom Zaremba</b>	<b>Fire Rated Glazing Industry</b>
<b>Bo Roberts</b>	<b>Louisiana Firefighters Assoc.</b>
<b>Kate Dargan</b>	<b>California State Fire Marshal</b>
<b>Craig Beyler</b>	<b>Hughes Assoc. for AAMA</b>
<b>Carl Wren</b>	<b>Austin Texas Fire Dept./IAFC</b>
<b>Paul Simony</b>	<b>Acralight Int'l Skylights</b>
<b>Randy Heather</b>	<b>Vistawall Group</b>
<b>Rick Thornberry</b>	<b>The Code Consortium</b>
<b>Sam Francis</b>	<b>AF &amp; PA</b>
<b>Larry Perry</b>	<b>BOMA Int'l</b>
<b>Dave Frable</b>	<b>GSA</b>
<b>Rich Schulte</b>	<b>Schulte &amp; Assoc.</b>