Hi-Rise Issues - World View of CTBUH and CIB

21 April 2004

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Mission

- facilitate professional exchanges among those involved in all aspects of the planning, design, construction and operation of tall buildings and the urban habitat...
- to promote better urban environments...
- role of tall buildings in the urban environment and their impact thereon.
- encourage the use of the latest knowledge in their implementation.
CTBUH

- Council formed in 1974
- Congress events every three to five years
- Regional events as needed
- Council efforts since 11 September 2001
  - Resource for media
  - Resource for building owners
  - Resource for other constituents
Task Force on the Future of Tall Buildings

- Assembled in September 2001
- Dialogue on emerging issues
- What works, what can be better, what message

Members
- Kone
- NDY
- NFPA
- P-B
- RJ A
- SIA
- SOM
- SWMB
- Teng
Task Force on the Future of Tall Buildings

Meetings held:
- October 2001 Chicago
- December 2001 London
- May 2002 NYC

Projects
- Building Assessment Guideline
- Building Enhancement Guideline
Task Force on the Future of Tall Buildings

Guides released May 2002

Assessing Tall Building Safety conference - New York

Building Owners, developers, planners
F. 1 AUTOMATIC SPRINKLER SYSTEM

- **Purpose:** System to control or suppress fire
- **Location:** Throughout building
- **Components:** Sprinklers, pipe, valves, hangars
- **Related systems:** Water supply, fire pumps, storage tanks
- **Performance:** Excellent record since 1878-no multiple fatality fire in buildings with automatic sprinklers
- **Maintenance:** Periodic inspection, test and maintenance
Task Force on the Future of Tall Buildings-Enhancement

F. 3 DIVERSE AND SEPARATE ROUTING OF STANDPIPE AND SPRINKLER RISERS

- **What?** Provide multiple, independent networks for supply to systems
- **Why?** Maintain water supply in the event of loss of one supply route
- **How?** Interconnect system risers at top and bottom; cross connect at various floor levels
Current Project

- Emergency Elevator Evacuation System (EEES)
- July 2003-present
- Incorporation of elevators into building evacuation plans
- Hardware/software/people-ware
- Completion in Q-4 of 2004
Upcoming events:

- **April 2004 Regional Conference**
  - Chicago
- **October 2004 Regional Conference**
  - Seoul
- **October 2005 Seventh World Congress**
  - New York, NY
“International Council for Research and Innovation in Building Construction”

**Purpose:** ...global net work for international exchange...

**Scope:** ...technical, economic, environmental, organizational and other aspects of the built environment ...

**Objectives:** ..information concerning research and innovation worldwide...
CI B TG 50 Tall Buildings

September 2002
- TG 50 Planning - Washington, DC
- Summary of syndicate reports
- KL Conference (May 2003) final program

October 2003
- Second Global Leaders Summit on Tall Buildings - Kuala Lumpur
- CIB-CTBUH International Conference on Tall Buildings

TG 50 activity levels

April 2002
- First Global Leaders Summit on Tall Buildings - London
- Agenda for refinements
  - Fire
  - Progressive collapse
  - Economic
CI B TG 50 Tall Buildings

Kuala Lumpur October 2003
The CIB-CTBUH Conference on Tall Buildings-
Strategies for Performance in the Aftermath of
the World Trade Centre

- 96 technical presentations
- Representation from 40 plus countries
- No subject left unexplored
- Dialogue expanded-agenda for future- next step
Fire Engineering Agenda

1. What is a High Rise Building?
2. Elevator Evacuation Systems
3. Fire is a Structural Load
4. Fire Test Protocols
5. Single Event Hazard Scenarios
7. Redundant, Robust, Redundancies
8. Evacuation Strategies
9. Egress Stair Capacity
10. Building Security Strategies
11. Non-Traditional Egress Contrivances
12. Materials Performance
13. What (if anything) do we Need to Fix?
The Extremes

- General agreement to design for more
- General agreement to not design for everything

Design Parameters

Do Nothing

Extreme Event
Next activity:
- Toronto
  - 1 May 2004

Executive summary of syndicate activities based on October 2003 conference

Development of High Rise database
Collaboration

- Likely to see next edition of CTBUH Assessment and Enhancement Guides done in conjunction with CIB TG 50 input

CTBUH 2005

7th World Congress
Renewing the Urban Landscape
16-19 October 2005
New York, NY
QUESTIONS

Thank you for your time and attention!

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