

9 & 10 April 2015 – Radisson BLU Hotel, Golden Lane, Dublin

'Fire Safety for All' in Buildings – Reboot & Reload !



International Council
for Research and Innovation
in Building and Construction



Sheltered Workshop



International Commission on
Technology and Accessibility
(ICTA)

Germany, 2012-11-26

CIB W14: Fire Safety – Research Working Group V

Buildings & 'Fire Incident Human Behaviour and Abilities'

www.fire-safety-for-all.ie



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CIB Background

CIB

International Council for **Research and Innovation** in Building and Construction

CIB W14: 'Fire Safety'

Working Commission 14 is an international, multi-stakeholder, transdisciplinary, **pre-normalization** forum for discussion and action, on research and innovation in Fire Science and Engineering for the design, construction and operation of a **Safe, Resilient and Sustainable Built Environment**.

Research Working Group IV: 'Structural Reliability & Fire-Induced Progressive Damage'

Research Working Group V: 'Fire Incident Human Behaviour & Abilities'

Research Working Group VI 'Sustainable Fire Engineering: Design, Construction & Operation'

Building

A permanent (non-mobile) construction ... comprising structure, electronic, information and communication technologies, and fabric (non-structure), complying with basic performance requirements, and having a minimum life cycle of 100 years ... which provides habitable and functional interior space(s) for building occupants and/or users.



Robust Basis & Precise Terminology

Real Fire Incidents ...



Sheltered Workshop Fire

Germany, 2012-11-26

14 Dead, including 1 Carer – 10 Seriously Injured. 300 Well-Resourced Firefighters attended.

Mental/Cognitive Impairment: "We are dealing here with people who of course do not react rationally", local news agency DPA quoted Local Fire Chief, Alexander Widmaier, as saying.

Religious 'Welfare Agencies' enjoy many privileges. They are subject to virtually no control, enjoy substantial tax privileges, and ban their employees from unionizing.

2005 & 2008 NIST(USA) Final Reports on 9-11 WTC 1, 2 & 7 Building Collapses

UN 2006 Convention on the Rights of Persons with Disabilities

ISO 21542: Building Construction - Accessibility & Usability of the Built Environment

WHO's 2001 International Classification of Functioning, Disability & Health (ICF)

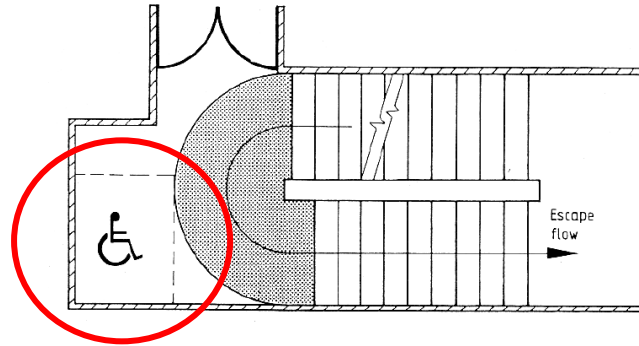
Reluctance to Self-Declare: Social Stigma, Anosognosia

UN 1989 Convention on the Rights of the Child



British Standard 9999:2008 (BS 5588:Part 8:1988/1999) ??

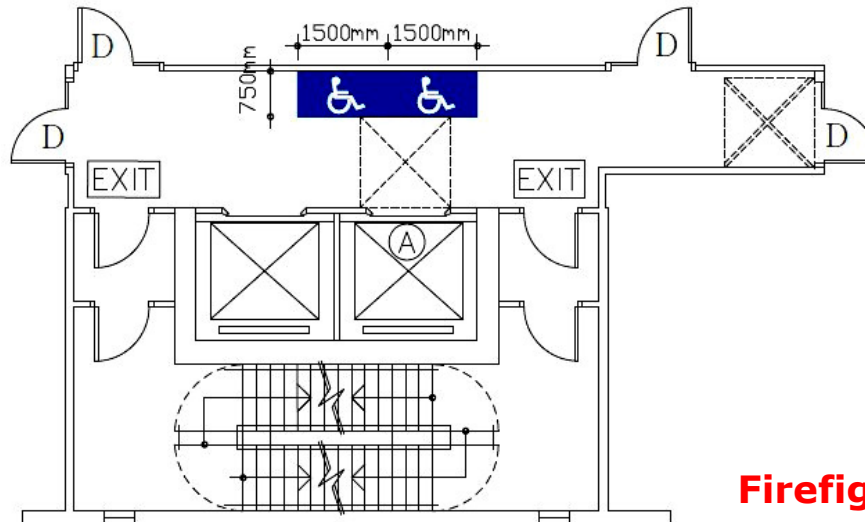
- Only 1 Wheelchair Space !
- Movement to/from space cuts across evacuation of other users !
- Lightweight Core construction permitted !
- Adjoining Lift/Elevator ?



- Staircase Too Narrow to lift wheelchair user in his/her own manual wheelchair !
- Powered Wheelchairs ??

Fire Evacuation Staircase

Hong Kong – 2014 'Disability' Addendum to 2011 Fire Code ??



Firefighter's Lift Lobby



Research WG V Reflection Document

Tweaking Existing Approaches is a Waste of Time, Energy & Resources !



- Dignity & On An Equal Basis -

Reflection Document: What is Needed (A-Z) ??



Research WG V Reflection Document

Does the Mainstream understand what it feels like to be left behind ?

1 Introduction

1.1 Buildings

1.2 Building Accessibility

2 Building Occupants/Users

2.1 Columbia University's 2001 WTC 9-11 Evacuation Study

2.2 Key Findings (2008) – NYC WTC 9-11 Medical Working Group

2.3 2012 Fire at Sheltered Workshop in Germany

3 UN CRPD - Convention on the Rights of Persons with Disabilities

4 'Fire Safety for All' – Some Terms & Definitions

5 Fire Engineering Strategies

5.1 Building Management

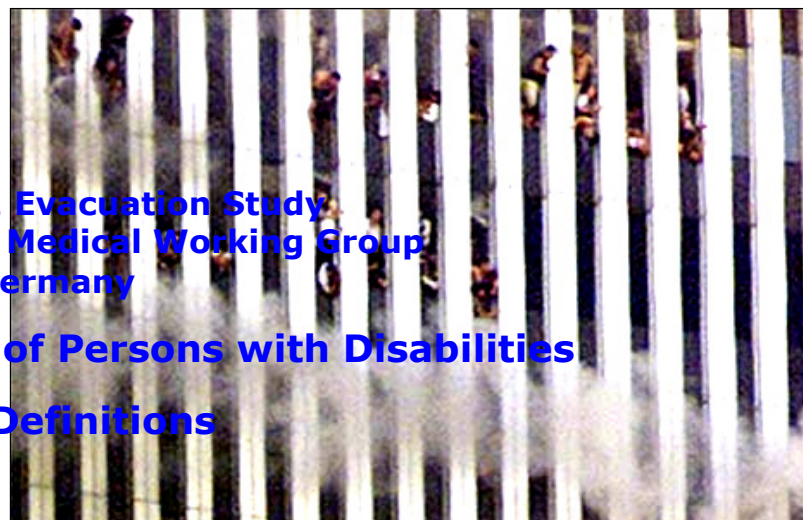
5.2 Self-Protection for People with Activity Limitations

6 Sustainable Fire Engineering

7 This Reflection Document & Your Comments

Appendices

'Fire Safety for All' Matrix – Basic Requirements – Definitions of Disability – Statistics



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A Call to Action and Successful Implementation !

2015 Dublin Declaration on 'Fire Safety for All' in Buildings

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U.N. Convention on the Rights of Persons with Disabilities

Full and Effective Accessibility of the Human Environment (social, built, virtual, economic and institutional) **is a Fundamental Human and Social Right**, i.e. a basic need, for **People with Activity Limitations** - it is an essential prerequisite for the safe exercise and enjoyment of those rights, protections and freedoms set down in the **1948 Universal Declaration of Human Rights** and subsequent international rights instruments ... and crucially, for their **Health, Participation, Inclusion and Development in all Communities**.

Article 11 – Situations of Risk & Humanitarian Emergencies

Extreme Man-Made Events (2001 WTC 9-11 & 2008 Mumbai Hive Attacks) ... **Hybrid Disasters** (2011 Fukushima Nuclear Incident) ... **Severe Natural Events** (Earthquakes, Floods, Landslides, Typhoons, Tsunamis) ... **Complex Humanitarian Emergencies** (Mass Human Migrations, Regional Famines) ... **Accelerating Climate Change & Variability**

Article 9 – Accessibility

Building Accessibility encompasses the complete cycle of independent use, in a dignified manner and on an equal basis with others ... and includes the approach, entry and use of a building and its facilities, **egress** during normal conditions and removal from its vicinity ... and, most importantly, **safe evacuation during a fire incident to a place of safety which is remote from the building and reached by way of an accessible route**.

Mainstream Integration !



2015 Dublin Declaration on 'Fire Safety for All' in Buildings

UN CRPD - Preamble Paragraph (g)

Emphasizing the importance of mainstreaming disability issues as an integral part of relevant strategies of sustainable development,

UN CRPD - Preamble Paragraph (v)

Recognizing the importance of accessibility to the physical, social, economic and cultural environment, to health and education and to information and communication, in enabling persons with disabilities to fully enjoy all human rights and fundamental freedoms,

PREAMBLE

MAIN BODY

Principle 1 – A Human Right

Principle 3 – Building Accessibility

Principle 5 – Accessible EICT's

Principle 7 – Reasonable Spatial Provision

Principle 2 – Successful Implementation

Principle 4 – Design for Safe Evacuation

Principle 6 – Fire Safety Skills

Principle 8 – Building Management

Principle 9 – Firefighters

APPENDIX – Terms & Definitions

