

IFE Conference July 2009

Fire Safety Engineering The Impact on Global Communities

2nd July 2009

Fire Engineering – Linking life safety and building continuity

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Introduction

- Who am I
 - 30+ years in risk management and risk consulting
 - IFE Board Director and International President Elect 2010/11
- Objective of this presentation:

Life safety

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Building and business continuity

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Sustainability

Content

- Current behaviour
- Issues arising
- Sustainability agenda
- Benefits

Current behaviour

- Fire engineering for Life safety – architects and engineers
- Prescriptive vs. performance-based solutions
- Minimise fire protection equipment/specialised construction
- Dependence on fire and rescue services for fire containment
- Insurers champion building fire safety and business protection
- Building/business fire safety less technologically advanced

Issues around current behaviour

- Designs almost always focus ONLY on life safety
- Performance-based solutions - often minimal fire protection
- Higher costs of fire protection, due to retro-fitting
- Potential for well-developed fire when Fire & Rescue Services (FRS) respond
- If risk to FRS officers is high, building may be left to burn
- Increased risk of higher fire losses:
 - In 2007, in USA, \$10.6billion of losses, up 10% from 2006*
 - In 2005, in UK, £1.9billion of losses, up 46% from 2004**
 - In 2005, in Germany, €3billion of losses, up 3% from 2004**
- Environmental impact of fire and rebuilding

* Source: NFPA Fire Loss in the USA 2007, all structure fires, excluding California firestorm losses

** Source: Geneva Association, World Fire Statistics, October 2008

Sustainability agenda

- Increasing legislation – environment and sustainability
- Minimise the carbon footprint of buildings (fire related)
Energy/CO₂/Greenhouse gas emissions
 - Any building fire
 - Building materials – Cement, concrete, steel, glass, plastics (all man-made)
- Joined-up fire safety strategy:
 - Design fire safety in from the beginning (minimising costs)
 - Life safety optimised
 - Include fire suppression (costs balanced against: uninsured loss costs; costs of insurance; green credentials)
 - Building design, fire suppression and fire safety management integrated

Benefits

- Joined-up fire safety design (avoid duplication, gaps and retro-fit costs)
- Increased business resilience – confidence for owners and managers
- Reduced carbon footprint for buildings – better green credentials
- Reduced loss-related and insurance costs (over the long term)

Thank you very much

Questions?

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