Presented at the FIG Working Week 2019, April 22-26, 2019 in Hanoi, Vietnam

"Geospatial Information for a Smarter Life and Environmental Resilience"
Fire-related fatalities in England

Source: Home Office
Trends in fires, England, 1999/00 to 2016/17

TOTAL, all fires, 2003/04, 473,600
TOTAL, all fires, 2016/17, 162,000

Secondary, 2003/04, 294,688
Secondary, 2016/17, 82,746

Primary, 2016/17, 74,803
Grenfell Tower update

• Initial focus on ACM
• Clear that little understanding of building regs requirements
• Ban on ‘combustible’ cladding wef 21/12/18 in England
• Scotland changes Feb 2021
Hotel building - Rostov-on-Don, Russia

Grenfell tower, London

Baku, Azerbaijan

Address Downtown hotel, UAE

Shanghai, China

Lacrosse tower fire, Melbourne

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<table>
<thead>
<tr>
<th>Building</th>
<th>Location</th>
<th>Year</th>
<th>Description</th>
<th>Damage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grenfell Tower</td>
<td>London, UK</td>
<td>2017</td>
<td>External cladding which consisted of ACM panels with PE core</td>
<td>72 dead; 70+ injured</td>
</tr>
<tr>
<td>The Address Downtown Dubai</td>
<td>Dubai, UAE (302m tall)</td>
<td>2016</td>
<td>An electrical short circuit on a spotlight was the cause</td>
<td>16 minor injuries</td>
</tr>
<tr>
<td>Marina Torch (352m)</td>
<td>Dubai, UAE</td>
<td>2015 &amp; 2017</td>
<td>Fire initiated in the 52nd floor and spread quickly due to high winds, combustible cladding</td>
<td>No injuries</td>
</tr>
<tr>
<td>Tamweel Tower (160m tall)</td>
<td>Dubai, UAE</td>
<td>2012</td>
<td>Vertical bands of exterior cladding from ground to roof level</td>
<td>Repair works have begun after 3 years</td>
</tr>
<tr>
<td>Safi Belhasa Building (13 stories)</td>
<td>Dubai, UAE</td>
<td>2012</td>
<td>Cladding consisted of ACM panels with PE core</td>
<td>9 flats destroyed; 2 injured; Debris damaged 5 vehicles</td>
</tr>
<tr>
<td>16 Storey apartment building</td>
<td>Baku, Azerbaijan</td>
<td>2015</td>
<td>Rapid fire spread along the cladding. Combustible panels according to reports.</td>
<td>17 dead; 60 injured</td>
</tr>
<tr>
<td>Lacrosse Building</td>
<td>Melbourne, Australia</td>
<td>2014</td>
<td>External wall cladding and aided by combustible material located within the wall structure quickly spread to the top of the building</td>
<td>No injuries</td>
</tr>
<tr>
<td>18 storey building</td>
<td>Roubaix, France</td>
<td>2012</td>
<td>Highly flammable outer cladding</td>
<td>1 dead; 1 injured</td>
</tr>
<tr>
<td>28 storey building</td>
<td>Shanghai, China</td>
<td>2010</td>
<td>Polyurethane insulation to external walls</td>
<td>53 dead; 90 injured</td>
</tr>
<tr>
<td>Monte Carlo Hotel (32 stories)</td>
<td>Las Vegas, US</td>
<td>2008</td>
<td>Exterior insulation and finish system which consists of a layer of expanded polystyrene foam adhered to gypsum sheathing</td>
<td>13 minor injuries</td>
</tr>
</tbody>
</table>
IFSS - International Fire Safety Standards
What are International Fire Safety Standards (IFSS)?

IFSS will offer a global solution to:

• Address current inconsistencies in the way property is designed, built and managed for fire safety
• Ensure different types of property including offices, residential, retail and industrial are safe for users
• Ensure confidence in property investment

IFSS will be implemented by all coalition organisations, through their members.
IFSS – Team approach

- These issues need a team approach
- Fire engineers are key to the solutions
- Opportunity to build a global fire engineering profession is huge, particularly in high risk buildings
- Professional bodies must collaborate
FIG WORKING WEEK 2019
22–26 April, Hanoi, Vietnam

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