From: Luke Bisby <Luke.Bisby@ed.ac.uk>

Sent:26 February 2016 08:47To:Gordon MastertonSubject:Re: Fire in Dubai

Hi Gordon,

I could prattle on for several hours in response to your email.

This is indeed a serious issue (potentially also in the UK, as in Russia, Australia, etc), and one we are now working on with Arup on EPSRC iCASE PhD studentship to look seriously at it. The use of "combustible materials" in building facade systems, such as polymer foams, has gone up drastically in recent years partly due to increasingly stringent EU requirements for thermal efficiency. I have a high-level meeting in March with the Centre for Window and Cladding Technology on this issue, with a range of relevant stakeholders.

Two specific comments (in confidence) on Brian's statements:

- 1) that's a pretty big "if" in the first sentence.
- 2) I think it's questionable as to whether a "full scale test", as currently implemented in the UK, is a realistic assessment method for in-service performance of non-compliant facade materials/systems. It's likely that the materials and systems have been carefully engineered specifically to pass the tests.

Happy to speak with you and Alastair in more detail if it would be useful.

Luke

On 25 Feb 2016, at 20:16, Gordon Masterton < > wrote:

Info. Any observations? Gordon

Sent from my iPhone

Begin forwarded message:

From: Alastair Soane <

Date: 25 February 2016 at 17:03:53 GMT **To:** Gordon Masterton <

Subject: Fire in Dubai

Reply-To: Alastair Soane <

Gordon

Further to our last meeting I made an enquiry of Brain Martin who is the CLG fire expert and here is his response.

Hi Alastair.

If people are getting things right then we shouldn't see a similar incident here.

As I understand it, the problems in Dubai relate to panels of Aluminium Composite Material.

Essentially thin layers of Aluminium sandwiching a polymer core. There are a number of products available, some with fire retardants in the core some without.

ADB gives guidance on this by saying that the external walls should not provide a medium for fire spread in tall buildings.

It then offers two approaches, a set of rules or a full scale test.

In the rules, we deliberately added the word "filler" to address things that form part of the cladding system that are not insulation but could provide a medium for fire spread.

I think the core of an ACP panel could reasonably be considered to be a "filler". So, unless the core material meets the "rules" then the AD suggests a full scale test.

Alastair

Alastair Soane
Director, Structural-Safety

www.structural-safety.org