

Addressing tomorrow's risk challenges

What are we thinking?

Tom Roche, Principal Code Consultant

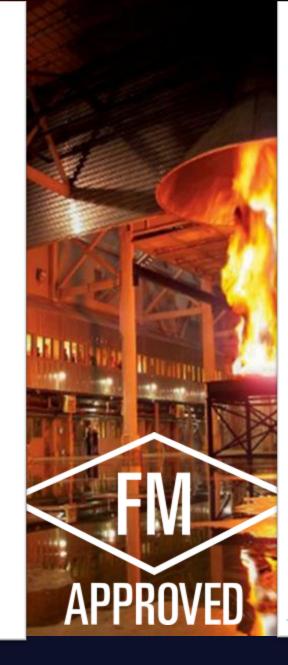
4th December 2024

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STORAGE OF CLASS 1, 2, 3, 4 AND PLASTIC COMMODITIES

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APPENDIX B DOCUMENT REVISION HISTORY













Mutual

Specialty Insurer

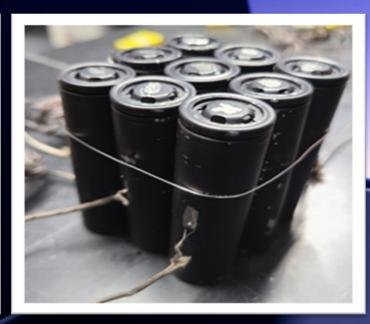
Protecting today and tomorrow

Service delivered globally



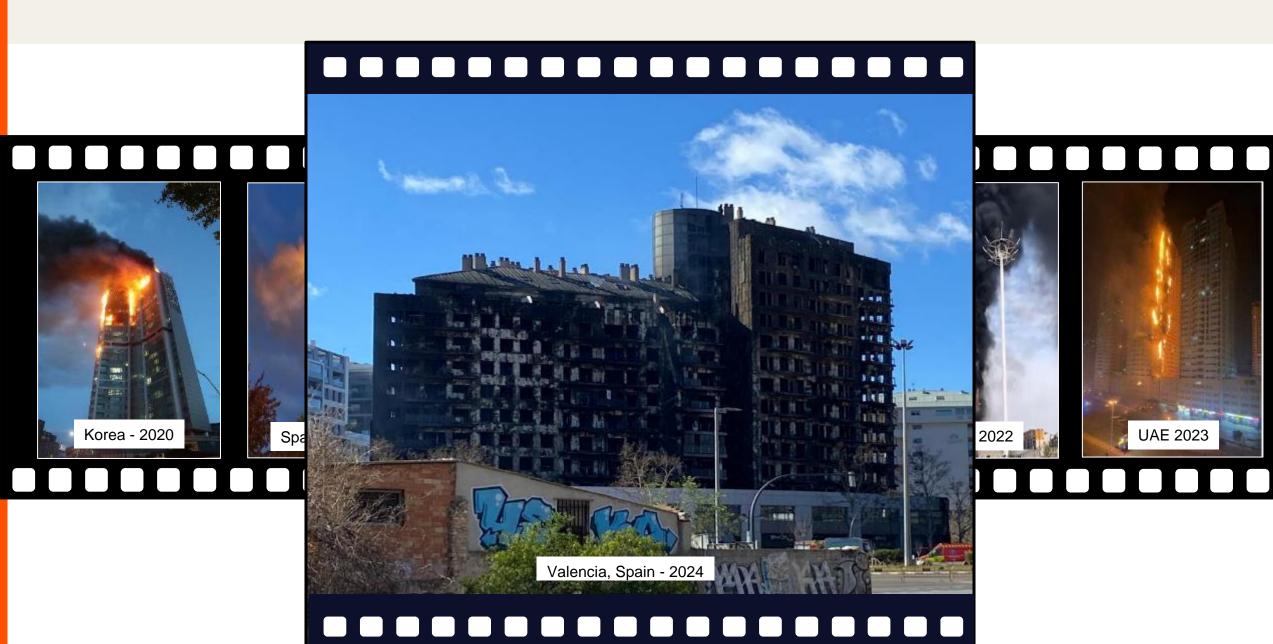






Building envelopes and structures

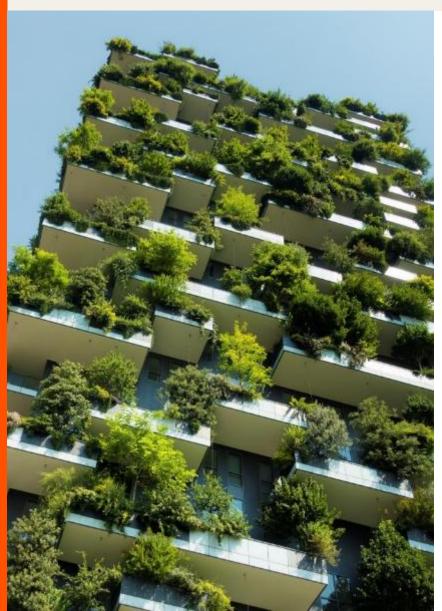
A lot of recent incidents



Construction materials have changed



Green Building Construction







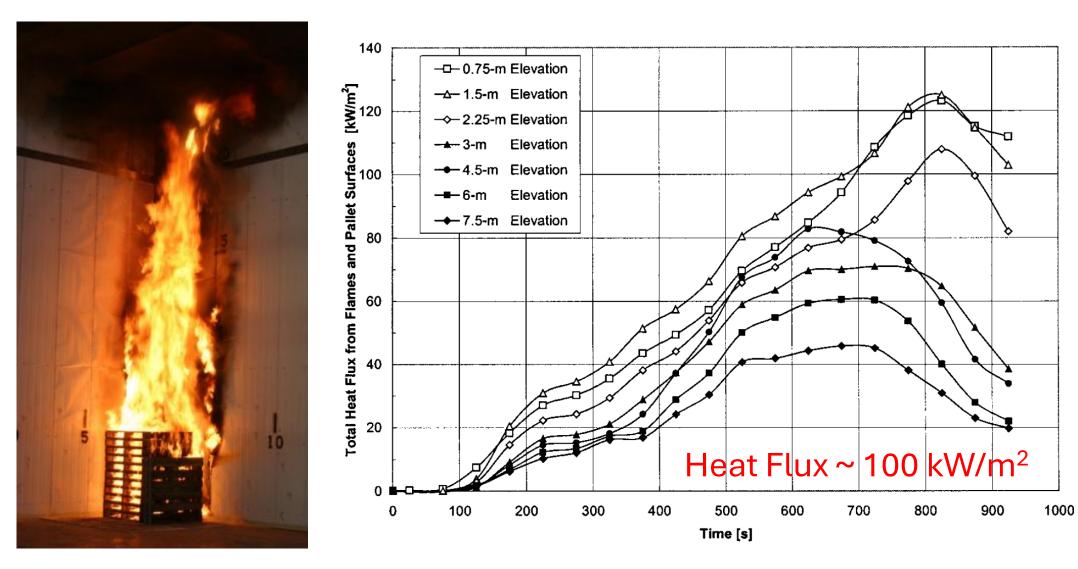
Whatever next?







Tests needed to match reality of fire attack



Alpert & Davis, "Evaluation of Exterior Insulation and Finish System Fire Hazard for Commercial Applications", J. Fire Protection Eng., 2002

History of testing systems

Metal panels

Non-inert panels

ETICS

Cavity Systems

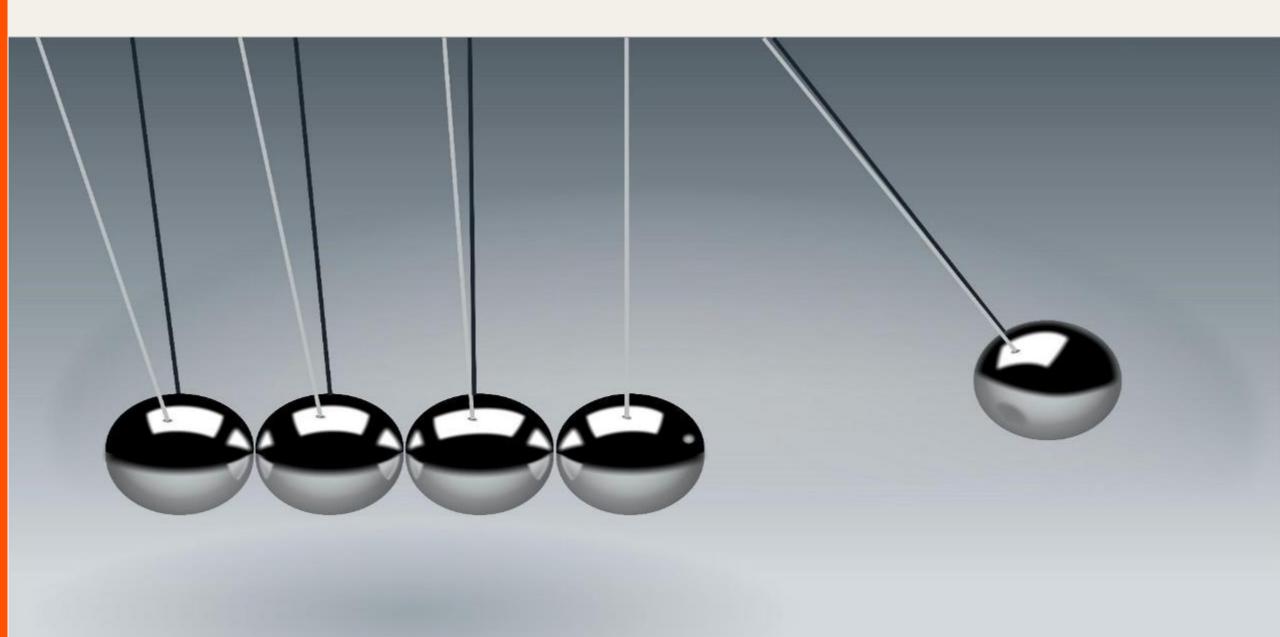
BIPVs







Ahead or behind?



Thoughts

Application running ahead of research

Importance of full-scale testing

Stay awake – more to come

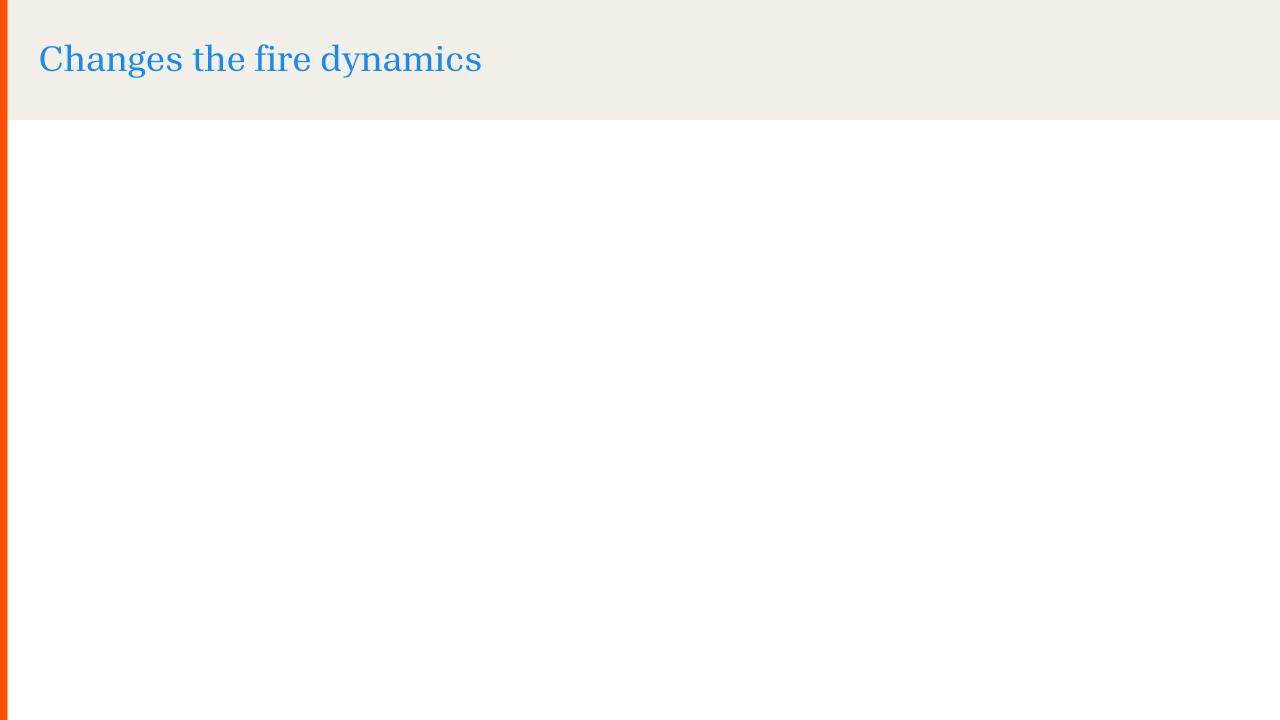
Can we repair it?

How does it really perform?



Photovoltaics

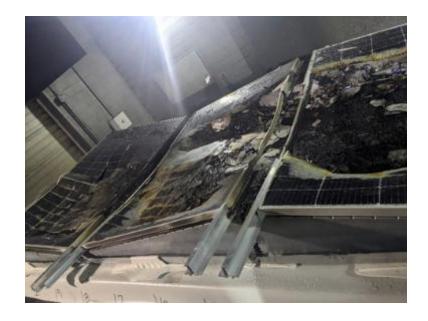




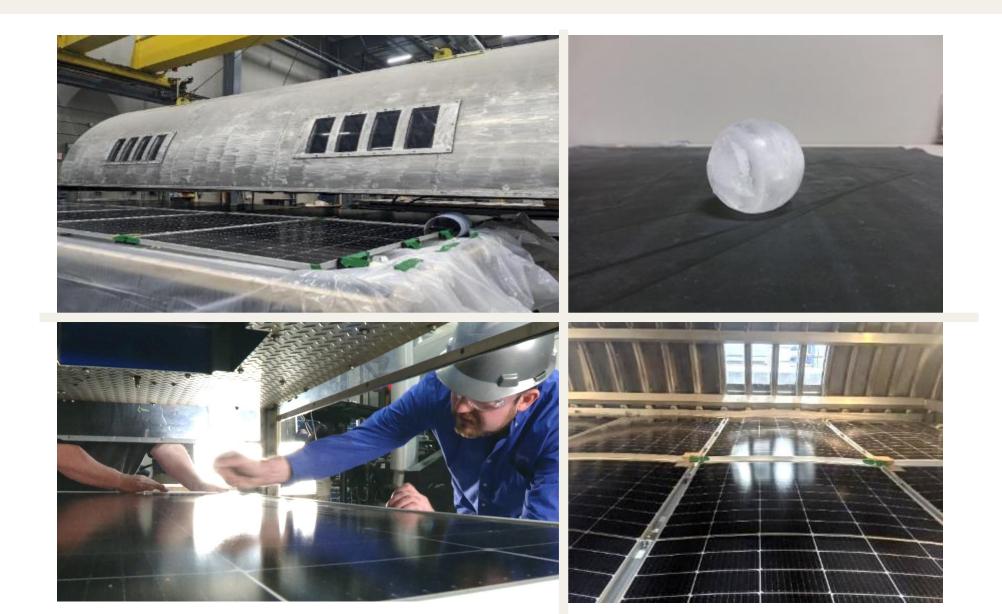
Changes the fire dynamics







Not just fire – what about the elements?



What happens when you use them on a wall?





What happens when you use them on a wall?







What happens when you use them on a wall?



BIPV back glass

Air cavity with wires

Mineral wool

Thoughts

Fire performance as a **system**

Its not just fire!

Foils and printables – an issue?

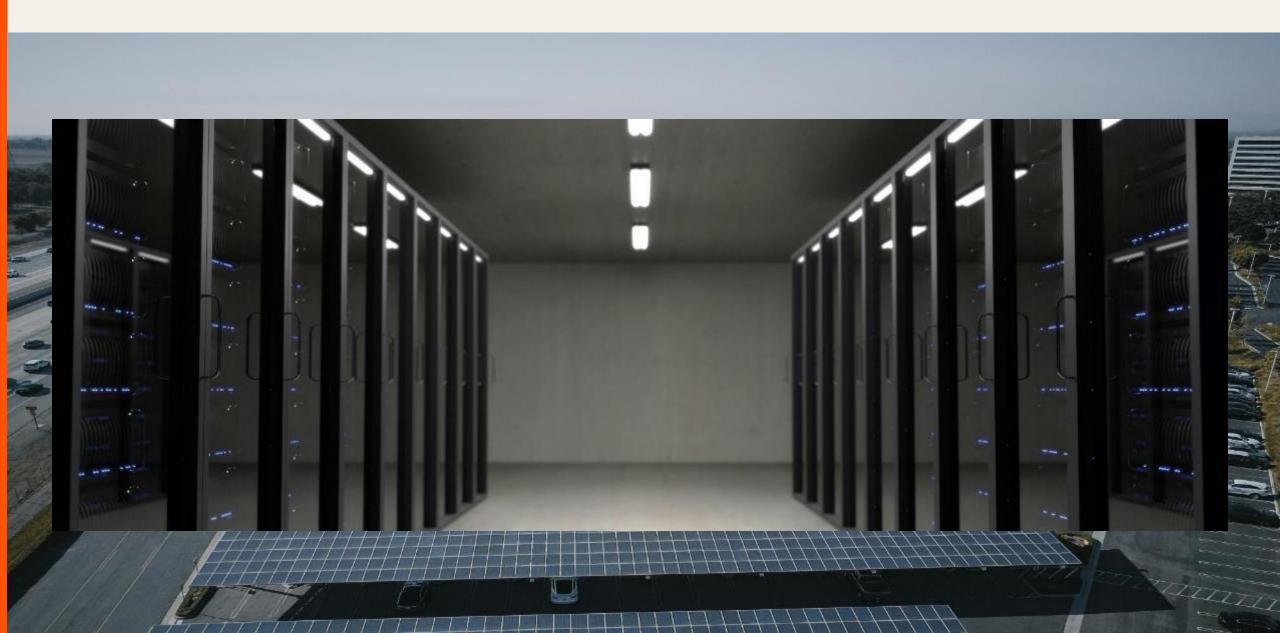
BIPV – time to think carefully

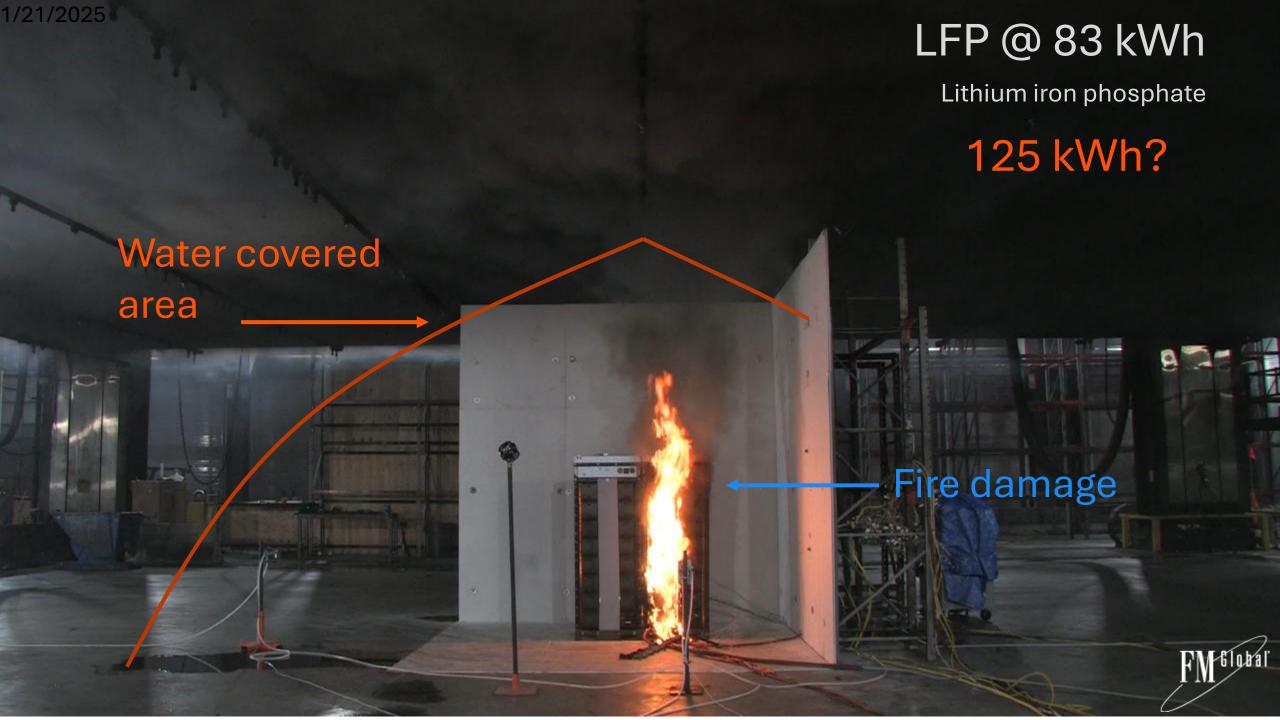
Are we learning lessons?



Energy Storage - Batteries

Growing need to store electricity

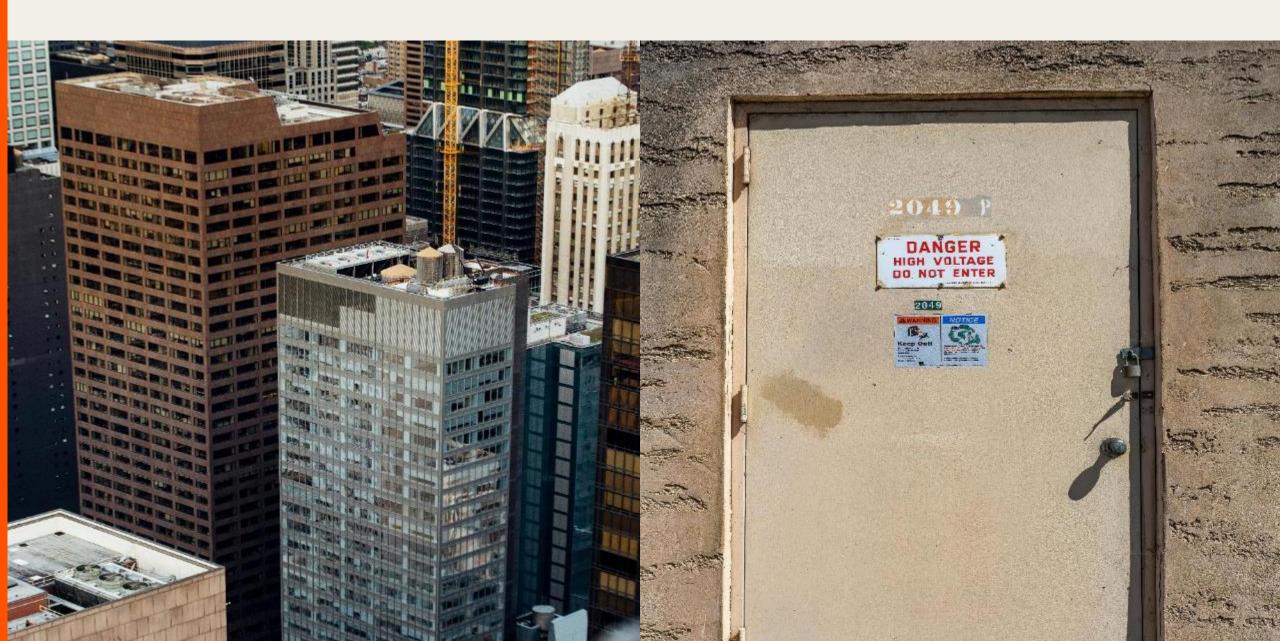




Its only the fire hazard – right?



You are putting them where?



No single bullet - layers of protection

Save the Building



Save the Equipment





In-module Protection

System Design

Prevent the Incident

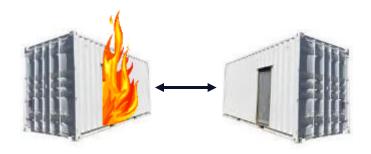
BMS

Product Design

Early Detection

Address Other Hazards

Fire Incident Response

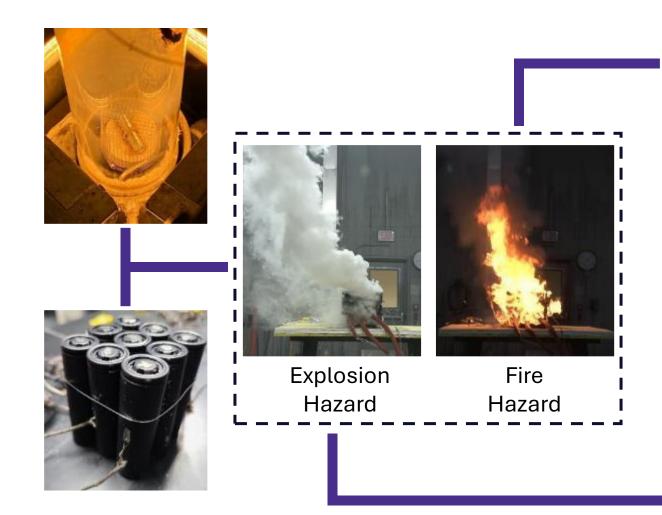






Reducing the potential impact

FM Research approach











Thoughts

Batteries – are essential

Storage systems are in buildings.

It is not just fire!!

What does "let it burn" look like in a high rise?

Distributed power systems





FM Global Datenblatt zur Schadenverhütung

März 2010 Zwischerrevision: Januar 2022 Seite 1 von 104 Übersetzung: Januar 2022

Lagerung von Lagergütern der Brandgefahrenklassen 1, 2, 3, 4 und Kunststoff

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