RISK REDUCTION REVIEW EXPERT PERSPECTIVES IN FIRE SAFETY NO. 16

CRR/FIRE SAFETY

LITHIUM ION BATTERIES

FIRE PROTECTION SYSTEMS

APRIL 2025 ISSUE NO 16

Issue No. 16



Welcome to the Risk Reduction Review

Welcome to the April 2025 edition of the Risk Reduction Review, where we explore critical advancements and reflections in fire and building safety. This month's newsletter includes insightful discussions, timely case studies, and actionable strategies tailored for building and fire safety professionals.



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The issue leads off with an in-depth Lithium-Ion Battery Fire Watch, highlighting a series of incidents from around the world. From a devastating e-scooter battery fire in Wales that hospitalized seven people, to a recycling facility blaze in Florida and a child's ride-on toy battery igniting a multifamily apartment fire in Louisiana, the case studies reinforce ongoing concerns about charging, storage, and disposal of lithium-ion batteries. These stories not only provide a global perspective but underscore the continued need for improved public education, safer charging practices, and responsible battery disposal.

In our Fire Sprinkler Saves section, you'll find a range of recent incidents where automatic sprinkler systems played a critical role in limiting fire damage, protecting lives, and preventing further property loss. Case snapshots from an elementary school in Virginia to an Illinois warehouse and a Baton Rouge apartment show how timely sprinkler activation stopped fires from spreading and allowed occupants to escape safely.

For a deeper dive into the discussions and case studies featured in this edition, please refer to the detailed articles provided. Follow our journey at the <u>https://www.riskreductionreview.com/</u> and on <u>LinkedIn</u>.

<u>Lithium-Ion Battery Fire Watch:</u> <u>April 2025 Incident Summary</u>



April saw a wide range of lithiumion battery fires in homes, apartments, recycling centers, and transit systems, highlighting persistent safety concerns tied to charging, storage, and disposal. These incidents offer lessons for fire prevention professionals, public safety advocates, and anyone working to reduce community risk.

Incident Snapshots

Date: April 29, 2025
Location: Cardiff, Wales, United
Kingdom

An electric scooter battery ignited inside a two-story home, sending seven people to the hospital, including one critically injured and airlifted for treatment. 📅 **Date**: April 24, 2025

Location: <u>Pensacola, Florida,</u> <u>United States</u>

A fire broke out at the Emerald Coast Utilities Authority (ECUA) recycling facility, suspected to be caused by an improperly discarded lithium-ion battery in the recycling stream.

7 **Date**: April 26, 2025

Location: <u>Baton Rouge, Louisiana,</u> <u>United States</u>

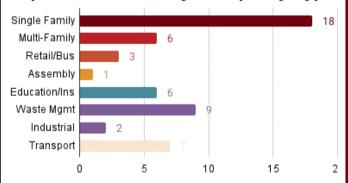
A rechargeable battery in a child's ride-on toy sparked a fire in a multifamily apartment complex, displacing three residents and damaging the attic.

Location	Incident Description	Root Cause	Status
<u>Cardiff, Wales, UK</u>	E-scooter battery fire in home; 7 hospitalized, 1 airlifted in critical condition	Battery stored indoors	Fire extinguished; major injuries
<u>Hawaiian Airlines</u> <u>(In-flight)</u>	Phone battery ignited mid- flight; crew secured device in fireproof bag	Overheating lithium-ion phone battery	No injuries; under investigation
<u>Berkeley,</u> <u>California, US</u>	Apartment fire confined to single unit; displaced 1 person	Battery stored indoors	Fire extinguished quickly
<u>Stapleford,</u> <u>Nottinghamshire</u>	Garden shed fire from overnight charging of electric unicycle	Lithium-ion battery left on charge overnight	Victim hospitalized
<u>Tallinn Airport,</u> <u>Estonia</u>	Suitcase caught fire at check-in after battery exploded	Power bank packed in luggage	Fire extinguished; no injuries

Key Takeaways & Safety Recommendations

- Never charge devices unattended or overnight, especially indoors.
- Keep batteries away from sleeping areas and exits to maintain safe egress in case of fire.
- Use only manufacturerapproved chargers and avoid tampering with batteries.
- Dispose of batteries properly, never place them in household trash or recycling bins.
- Install and maintain smoke alarms near areas where devices are commonly charged or stored.

Reported Incidents By Occupancy Type



Spotlight Case

Quick airport response in <u>Tallinn</u> contained a battery fire within a suitcase in seconds, preventing a potential aviation disaster.

> <u>Read the blog</u> <u>here for April</u>

<u>Fire Sprinkler Saves: April 2025</u> <u>Recap</u>



April's, incident summaries highlight how fire sprinkler systems effectively controlled fires in residential, commercial, and transportation settings. These real-world examples reinforce the role of automatic suppression in protecting lives, limiting property damage, and supporting community risk reduction.

Incident Snapshots

 Date: April 27, 2025
Location: Aurora Warehouse – Aurora, IL
A propane-powered forklift ignited inside a warehouse, causing an explosion and fire. The facility's sprinkler system activated, to assist in containing the fire. No injuries were reported. 77 Date: April 18, 2025

Location: <u>Creekside Elementary</u> <u>School – Suffolk, VA</u> A fire started in a custodial closet at an unoccupied elementary school

and was quickly contained by the sprinkler system before firefighters arrived. The school sustained minimal damage.

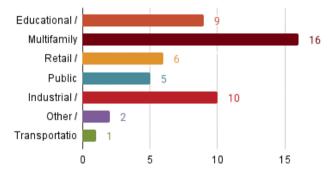
Date: April 30, 2025
Location: <u>Catholic Presbyterian</u>
<u>Apartments – Baton Rouge, LA</u>
A fire in one apartment activated the sprinkler system, which contained the fire and prevented spread to neighboring units. Over a dozen residents were temporarily displaced, but no injuries occurred.

Location	Incident Description	Root Cause	Status
<u>Annapolis, MD</u>	Kitchen fire in a senior apartment unit resulted in one fatality	Smoking while using medical oxygen	Fire contained; one fatality
<u>Poughkeepsie,</u> <u>NY</u>	Battery fire in dorm room activated sprinklers	Lithium-ion battery failure	Minor injuries
Lexington, KY	A fire on the fourth floor displaced 28 residents	Unspecified	No injuries
<u>Cumming, GA</u>	Sprinklers controlled a fire started during roof repairs	Accidental ignition	No injuries
Portland, OR	A resident suffered burns in a care facility fire	Under investigation	One injury
<u>Colchester, VT</u>	Overnight fire in a bowling alley	Unspecified	No injuries; business reopened the next day

Key Takeaways & Safety Recommendations

- Ensure sprinkler system are designed in accordance with codes and standards.
- Regular inspection, testing, and maintenance (ITM) of sprinkler systems is key to reliability.
- Integrate alarms, sprinklers, and egress plans for full system effectiveness. Systems should not operate in isolation.
- While water from sprinkler activation can cause damage, it is far less destructive than uncontrolled fire spread.
- Sprinklers operate automatically and often extinguish fires before emergency responders arrive

Reported Incidents By Occupancy Type



Spotlight Case

A sprinkler system in a <u>Granite</u> <u>Bay pizzeria quickly knocked down</u> a fire sparked during business hours, highlighting the risk of kitchen flare-ups and the value of suppression systems in fastcasual dining environments.

> <u>Read the full</u> <u>April Blog Here!</u>