NEWSLETTER

November 2025

Partnering for Safety: Fire Protection Engineering That Supports Your Mission

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At Cosey Engineering & Consulting LLC, we understand the critical role fire marshals and code officials play in protecting lives and property. Our firm is proud to support your mission through expert fire protection engineering that ensures compliance, enhances safety, and streamlines permitting.

Led by William Cosey, PE, CFPS, FSFPE our team brings decades of experience in:

- Engineering design
- Code interpretation and documentation
- Lithium battery thermal runaway mitigation
- Risk assessments for commercial, industrial, and public facilities
- Conference-level Training to Engineers, Fire Departments, public schools, and Building Administrators

📍 Based in Citrus County, serving Florida and beyond

Congratulations to William Cosey, PE, CFPS, FSFPE – SFPE Fellow Award Recipient

We're proud to announce that William Cosey, PE, CFPS, founder and principal engineer of Cosey Engineering & Consulting LLC, was honored last month in Vancouver, BC with the prestigious Fellow Award from the Society of Fire Protection Engineers (SFPE).

This recognition is reserved for individuals who have made outstanding contributions to the fire protection engineering profession through leadership, innovation, and service. William's decades of work in code compliance, engineering design, and public safety advocacy have earned him national respect—and now, global recognition.

His commitment to excellence continues to shape our firm's mission: to protect lives, empower communities, and uphold the highest standards of integrity.

"THERMAL RUNAWAY: WHAT EVERY FACILITY MANAGER NEEDS TO KNOW"

As lithium-ion batteries become more common in EVs, energy storage systems, and consumer electronics, the risk of thermal runaway—a chain reaction that can lead to fires or explosions—has become a top concern for fire protection professionals.

We break down:

- What thermal runaway is and how it starts
- Why traditional fire suppression systems may not be enough
- How NFPA, SFPE, ICC, and the FAA are responding to the growing hazard
- What facility owners, engineers, and insurers need to consider in 2025

We're launching a new training module this month to help engineers, safety officers, and building managers understand and mitigate thermal runaway risks.

Why Covering a Fire Can Lead to an Explosion

It's a common instinct: when faced with a small fire—especially in a kitchen or workshop—people often try to "smother" it by covering it. But in certain situations, this well-meaning action can have explosive consequences. Using fire blankets on EV fires present the same hazards on a larger scale that threatens fire fighters and by-standers.

⚠️ **The Science Behind the Danger**
When a fire is deprived of oxygen, it may appear to extinguish. However, if flammable vapors or gases continue to build up under the cover, they can create a pressurized, oxygen-deprived environment. If the cover is suddenly removed or leaks, oxygen rushes in and can ignite the accumulated gases—resulting in a flash fire or explosion. Lithium-Ion battery fires do not require external oxygen to continue.

This is especially dangerous with:

- Grease fires (e.g., in kitchens)
- Chemical fires involving volatile solvents
- Battery fires, where thermal runaway can continue even without visible flames

Cosey Engineering & Consulting can provide the training and expertise to identify and mitigate these explosive environments.

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