



Content
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NFPA 855 Training: Installation of Stationary Energy Storage Systems

[View Course Details](#)

COURSE DATES AND TIMES

Why NFPA 855 Training Matters

Battery energy storage is being installed faster than at any time in history, in utility substations, solar farms, data centers, commercial buildings and homes. Every one of these installations has to meet fire and life safety requirements before it can be permitted, and NFPA 855 is the standard that sets them.

The 2026 edition brings major changes. It requires a hazard mitigation analysis, adds large-scale fire testing, sets minimum requirements for emergency response plans and training programs, tightens the definition of a qualified person, and adds chapters on flow batteries and barge-mounted systems. Many jurisdictions still enforce the 2023 edition through the 2024 IFC, so designers and inspectors need to work with both.

Projects stall when submittals are incomplete, hazard mitigation analyses are weak, or separation and explosion control requirements are missed late in design. Understanding the code early saves time, money and redesign, and it helps prevent the kind of fires that set the industry back.

Course Highlights

The course uses practical, example-based instruction drawn from real projects.

- Clear walkthrough of the 2026 edition with a 2023 to 2026 crosswalk
- How NFPA 855 works with NFPA 1, IFC 1207, NEC 706, UL 9540, UL 9540A and Canadian codes
- Hazard mitigation analysis workshop and plan review of a containerized utility-scale BESS

- NFPA 855 compliance checklist participants can use on their next project or permit review

Learning Outcomes

By the end of this course, you will be able to:

- Explain the scope, structure and threshold quantities of NFPA 855 (2026) and the key changes from the 2023 edition.
- Describe how NFPA 855 relates to NFPA 1, IFC Section 1207, NEC Article 706, NFPA 800 and Canadian codes.
- Identify the ESS hazards that drive NFPA 855 requirements, including thermal runaway, propagation, off-gas and explosion.
- Interpret UL 9540, UL 9540A and large-scale fire test results in a permit submittal.
- Prepare and review a hazard mitigation analysis and the construction documents required for AHJ approval.
- Apply siting, separation, size and spacing requirements for indoor, outdoor, rooftop and containerized installations.
- Specify the detection, suppression, ventilation, explosion control and emergency shutdown measures the code requires.
- Identify the commissioning, decommissioning and emergency response plans and the training program the 2026 edition requires.

The focus is on understanding what the code requires, why it requires it, and how to show compliance the first time.

Course Approach

The course is vendor-neutral and built around the decisions engineers and AHJs actually make. Each code requirement is explained in terms of the hazard it controls, so participants understand the intent as well as the rule.

Short case examples and lessons from real BESS fire incidents show how the requirements play out in the field. Two workshops give participants practice preparing a hazard mitigation analysis and reviewing a permit submittal.

The course focuses on code compliance. For hands-on installation, commissioning, testing and maintenance, see our BESS Training course. For grid integration, sizing and project economics, see our Energy Storage Systems course.

Related Courses

- [Energy Storage Training: Grid Integration, Design and Economics](#)
- [BESS Training: Installation, Commissioning, Testing and Maintenance](#)

WHO SHOULD ATTEND

This course is designed for professionals who design, approve, build or operate energy storage installations, including:

- Fire marshals, fire inspectors, plans examiners and building officials (AHJs)
- Electrical, fire protection and renewable energy engineers
- Utility engineers and BESS project developers
- EPC firms and electrical contractors
- Data center and critical facility managers
- Facility, safety, risk and insurance professionals
- Emergency response planners and fire service training officers

STUDENTS RECEIVE

- NFPA 855 Training Course Certificate
- 0.6 CEUs (6 Professional Development Hours)
- \$100 Coupon Toward Any Future Electricity Forum Course (Restrictions Apply)
- Our Latest Electrical Digital Handbook (Value \$20)
- FREE Magazine Subscription (Value \$50.00)
- Course Materials In PDF Format

COURSE OUTLINE

NFPA 855 Training Course Outline

Module 1: NFPA 855 Scope, Structure and Adoption

- Purpose, scope and organization of the 2026 edition
- Threshold quantities and exempt installations
- Retroactivity, equivalency and the role of the AHJ
- Relationship to NFPA 1, IFC 1207, NEC 706 and NFPA 800
- Adoption in the US and Canada
- 2023 to 2026 crosswalk and qualified person requirements

Module 2: Hazards, Listing and Fire Testing

- Failure modes, thermal runaway and propagation
- Off-gas, deflagration and explosion risk
- Lessons learned from major BESS fire incidents
- UL 9540 and UL 9540A testing levels
- Large-scale fire testing requirements in the 2026 edition

Module 3: Hazard Mitigation Analysis and Permitting

- When a hazard mitigation analysis is required
- Failure modes, consequences and acceptance criteria
- Construction documents and AHJ plan review
- Workshop: hazard mitigation analysis worksheet

Module 4: Siting, Separation and Installation

- Indoor, outdoor, rooftop and open parking garage locations
- Walk-in units, containers and dedicated-use buildings
- Maximum stored energy, unit size and spacing
- Separation from buildings, lot lines and exposures
- Signage and fire service access

Module 5: Fire Protection, Explosion Control and Shutdown

- Smoke, heat and gas detection
- Automatic fire suppression and water supply
- Ventilation and exhaust
- Explosion control under NFPA 68 and NFPA 69
- Emergency shutdown and remote monitoring

Module 6: Commissioning, Decommissioning and Emergency Response Plans

- Commissioning and decommissioning plan requirements
- Operation, maintenance and records for the AHJ
- Emergency response plan minimum contents
- Fire service pre-incident planning
- Training program requirements

Module 7: Special Applications and Case Study

- Residential ESS, data centers and UPS systems
- Flow batteries and ESS on barges
- Lithium battery storage
- **Case Study:** plan review of a containerized utility-scale BESS
- NFPA 855 compliance checklist and final test

Course Schedule

Start: 10:00 a.m. Eastern Time

Finish: 4:30 p.m. Eastern Time

Contact us Today for a FREE quotation to deliver this course at your company's location.

[Request Quote](#)