



Detection Before Escalation

**NFPA 855 Remote
Monitoring for
Off-Gas Detection
in BESS Applications**

ORR Protection is at the forefront of fire safety, offering advanced remote monitoring solutions for off-gas detection in compliance with NFPA 855 & IFC Chapter 12. As lithium-ion (Li-ion) battery systems continue to grow in energy storage and mission-critical applications, the ability to detect early signs of failure—thermal runaway and off-gassing—is critical for safety and compliance.

The First Sign of Failure

Detection of off-gas events enables identification of abnormal battery conditions prior to thermal runaway development



Early Warning System

Lithium-ion battery failures often begin with off-gassing before full thermal runaway occurs. Our remote monitoring detects these warning signs, allowing facility teams to take proactive measures.

Code Compliance First Responders

NFPA 855 & IFC Chapter 12 requires monitoring of off-gassing events in battery energy storage systems to mitigate risks associated with thermal runaway and potential fire hazards.

Risk Reduction for Critical Facilities

Data centers, utilities, and industrial storage sites depend on uninterrupted operations. ORR's off-gas detection technology minimizes unplanned downtime and reduces equipment damage risks.

Monitoring by ORR Protection

- **24/7 Real-Time Monitoring:** Constant surveillance of off-gassing events, preventing escalation to full battery failure.
- **Predictive Analytics:** AI-driven fault detection enhances response time and prevents unnecessary shutdowns.
- **Point ID Notifications:** Pinpoint exact locations of battery issues for faster troubleshooting and resolution.
- **Mobile App & Push Alerts:** Instant alerts sent to facility teams via our integrated mobile platform.
- **Seamless Integration:** Works with all off-gas detection manufacturers, from single-point detectors to complete gas detection systems, ensuring maximum flexibility and system compatibility.
- **NFPA 855 & IFC Chapter 12 Audit-Ready Reports:** Automated compliance documentation for regulatory requirements.
- **Executive Dashboard:** Visibility to all active sites, and pin point data and analysis on active troubles, alarms, and advanced notification from one view for locations in their portfolio.



Connect with ORR Protection today for a no-obligation consultation.
800.347.9677 | [ORRPROTECTION.COM](https://www.orrprotection.com)

Key Benefits for Facilities & Fire Safety Teams

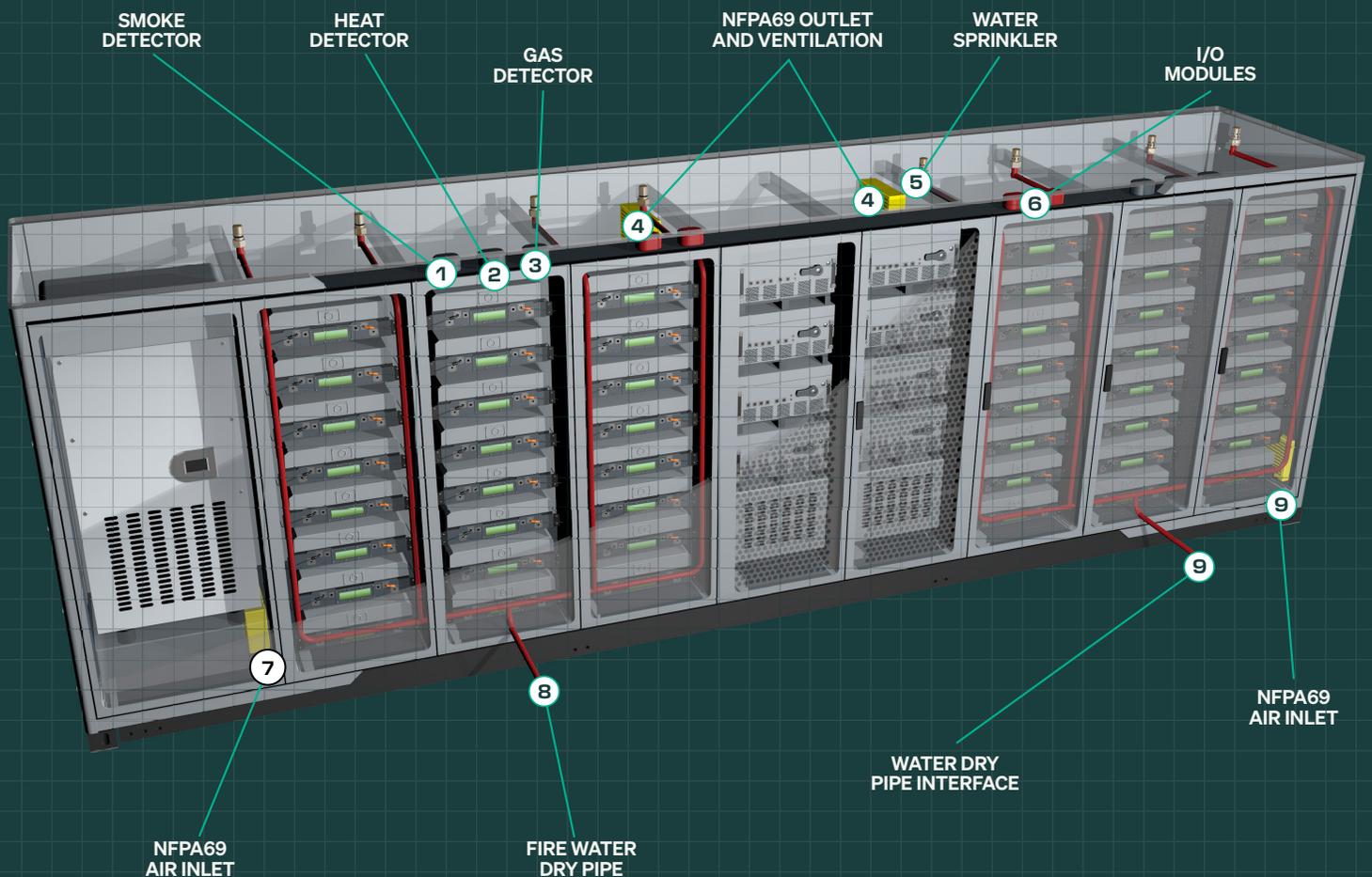
- **Enhanced Safety & Risk Mitigation:** Detects off-gassing at the earliest stage, allowing for immediate intervention.
- **Reduced Costs & Equipment Downtime:** Prevent catastrophic failures, minimizing damage and reducing replacement costs.
- **Regulatory Compliance & Insurance Benefits:** NFPA 855 & IFC Chapter 12 compliance simplifies audits and strengthens fire protection policies.

Expanding Across Key Markets: Utility BES S & Data Centers

With the rapid adoption of Lithium-Ion Batteries (Li Batteries) in Utility Battery Energy Storage Systems (BESS) and Data Centers, ORR Protection's monitoring solutions provide:

- Early detection and risk mitigation for large-scale utility battery storage systems.
- Continuous remote monitoring for data center battery systems undergoing rapid upgrades.
- Scalability across diverse applications, ensuring compliance with NFPA 855 and reducing operational risks.

ORR 3D POWER-RACK



Protecting People, Property and the Environment

Founded in 1948, ORR Corporation began when Clark Orr, Sr. sold industrial safety products from the trunk of his Packard to rural electric cooperatives across Kentucky, Indiana, and Ohio.

In 1971, ORR Protection was established as one of America's first fire suppression companies—extending that commitment into engineered fire protection for high-consequence environments.



Today, ORR delivers advanced detection, suppression, and monitoring solutions designed to safeguard mission-critical operations.

Who We Are

We specialize in custom fire protection for mission-critical business processes. Some of the largest and most successful companies in the world trust ORR with their people, property, and environment.

Our Mission

As a protection corporation, we are dedicated to protecting people, property, and the environment.

Our Purpose

ORR Protection is committed to the service of others. Our core values define whom we strive to be, how we conduct ourselves, and how we treat others.



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