



DETERMINING APPROPRIATE SAFETY LEVEL

FOR LITHIUM BATTERY CHARGING

PROBLEM STATEMENT

Lithium-ion battery fires are fast-developing, high-intensity, and difficult to control.



SAFETY LEVELS

- Basic: No containment, high risk
- Intermediate: Procedural controls, moderate risk
- Advanced: Fire containment systems, controlled risk



DECISION FRAMEWORK

- What is the cost of operational downtime?
- What is the cost of a fire incident?
- What level of risk is acceptable?

CONCLUSION

The goal is not to eliminate fire risk, but to control the consequences and ensure business continuity.

KIWA REFERENCE:



“Creates a controllable situation when a lithium-ion battery starts a thermal runaway.” (Kiwa Test Report, 2025, p.5)



“The temperature on the outside... did not exceed 100°C.” (Kiwa Test Report, 2025, p.19)



“Containing the fire, controlling the fire...” (Kiwa Test Report, 2025, p.19)