

CINS Recommendation Paper - IMDG SP188 Lithium-Ion Batteries

A Publication of CINS, the Cargo Incident Notification System

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Background and the purpose:

The shifts of Lithium-ion battery in current trends, the large volume of SP 188 and poor transparency are leaving maritime transport increasingly vulnerable to fires, explosions, and other collateral incidents.

SP188 was originally designed to facilitate the movement of products considered to present a limited level of risk. However, rapid evolution in uses, volumes and market players in the battery sector has changed the context in which the exemption is applied.

In its current form, SP188 no longer fully meets the safety and traceability needs of maritime and port transport. The shipping carriers are directly exposed to the operational consequences, human, and insurance-related risks, we are the first to observe its shortcomings and the urgent need for a comprehensive reform.

This recommendation is framed as a concise, decision-focused narrative for regulators, Flag States, governments, carriers, terminals, insurers, industry associations and NGOs.

Recommended position:

Recommended principle.

SP188 should be maintained only as conditional relief when the maritime transport chain retains visibility, traceability and control of lithium-ion cells and batteries. Treating SP188 cargo as ordinary non-dangerous cargo creates an operational blind spot that can escalate into ship, terminal and emergency-response consequences.

- A key option to consider is requiring a mandatory dangerous goods declaration for all lithium-ion batteries, as this would simplify control and enhance transparency across the end-to-end supply chain.
- The option of comprehensive reform of SP188 Lithium-ion battery to restrict the limitations on capacity per container level.
- A CTU-level threshold model to prevent the unlimited accumulation of SP188 Lithium-ion batteries in one container and reduce the risk of unmanaged fire consequences.
- IMDG SP 963, which limits the gross mass of nickel-metal hydride batteries to 100kg per CTU for the dangerous goods declaration under the IMDG code, can serve as a reference for introducing stricter controls on Lithium-ion battery limits at the CTU level.
- For Lithium-ion batteries SP188 relief, the total gross battery mass per CTU should be capped at 20 kg gross mass. Anything above this threshold should comply with all the relevant IMDG provisions and must be declared as mandatory dangerous goods in accordance with chapter 5.4 of the IMDG code.
- Shipments of Lithium-ion batteries offered under SP188 for transport below or up to the 20 kg threshold still require a mandatory declaration, as per section 5.4.4.2 of the IMDG code.

Evidence-based Concerns:

The consolidated incident evidence referenced in the source report includes fires, smoke events, explosions, misdeclarations, cargo discrepancies, battery quality concerns, packaging deficiencies and emergency response challenges involving lithium-ion cells and batteries transported under SP188 or mis declared as non-dangerous cargo.

Route cause	Observed issues	Required implication
Misdeclaration	Equipment containing lithium-ion batteries declared as normal consumer goods; cargo revised only after carrier screening; mismatch between declared and actual battery chemistry/specifications.	Screening alone is not enough. Visibility should start at shipper declaration stage.
Battery quality issues	Defective cells, poor manufacturing quality, thermal runaway events and high state of charge, especially in low-cost shipments with poor packaging.	Risk cannot be judged only by individual battery size; quality and accumulation matter.
Packaging non-compliance	Inadequate inner packaging, lack of terminal protection, no short-circuit protection, batteries exceeding SP188 limits, inconsistent documents and incorrect test reports/markings.	Relief should be conditional on verifiable compliance, not assumed compliance.
Safety-framework weakness	Lack of visibility affects stowage, segregation, terminal planning and emergency preparedness. Rising volumes and product diversity make implementation harder if without any proper regulatory framework and control.	Maritime operations need a practical control point at CTU level.

Operational consequences if SP188 remains invisible:

- Container fires and explosions onboard ships, in terminals and in depot yards, with risk of potential injuries and casualties.
- High-risk accumulation where many small SP188-eligible batteries are loaded into one CTU.
- Fire spread beyond the originating container to other containers, including cargo damage and stability concerns when vessel holds are flooded.
- Large-scale emergency response requires discharge of multiple containers, salvage arrangements and extended approval processes for waste management and disposal.
- Limited effectiveness of Hydropens and punch-nozzle systems when stowage position and container accessibility restrict intervention.
- Incorrect stowage decisions and escalated safety risk caused by incomplete transparency of SP188 cargo.

Reviewing SP188 is a necessary step to restore safety and traceability at a level that matches current maritime transport challenges. Requiring declaration of lithium-ion batteries, or strictly regulating any exemption, would strengthen risk prevention, improve accountability across the logistics chain and protect crews, vessels, and port infrastructure.

Note:

This recommendation paper for Lithium-ion batteries applies to shipments of individual cells and batteries, including batteries packed with or installed in equipment, UN 3480 and 3481. It does not apply to Lithium metal batteries.

Definitions and abbreviations:

CINS: Cargo Incident Notification System - <https://www.cinsnet.com/>

IMDG: International Maritime Dangerous Goods code

UN: United Nations (number)

SP: Special Provision(s)

CTU: Container Transport Unit

CINS Incident data Summary

The report records fires, smoke events, explosions, mis-declarations, cargo discrepancies, battery quality concerns, packaging deficiencies, and emergency-response challenges of lithium-ion cells and batteries transported under SP188 or declared as non-dangerous cargo.

The evidence indicates that the principal maritime safety concern about SP188 itself, and the operational consequences created when lithium-ion cells and batteries transported under SP188 are treated commercially as ordinary non-dangerous cargo and lacking complete transparency during the maritime transport chain and without any limit per CTU level is now emerging as an **OUT OF SIGHT, OUT OF CONTROL** condition.

Document basis	Details
Incident data file	To receive the incident data file, contact CINS Secretariat on: secretary@cinsnet.com
Source status	Updated 01.07.26

Core issues behind the figures:

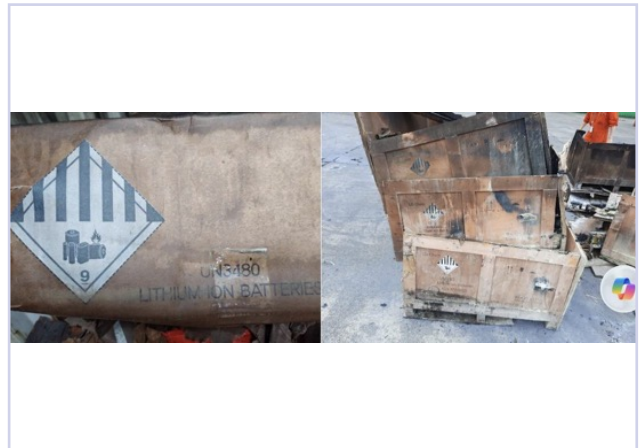
- **Visibility gap:** High number of “UN not reported” cases suggests limited hazard clarity at booking and acceptance stage.
- **Declaration gap:** Mis-declaration and non-DG/SP188 reliance can mask the true cargo profile inside the CTU.
- **Packaging gap:** Weak packing, compression, or inadequate terminal protection can create short-circuit pathways.
- **Quality gap:** Cell quality, model/test-report mismatch, and inconsistent documentation reduce confidence in SP188 evidence.
- **Consequence gap:** Once onboard, concealed battery cargo creates delayed detection, limited access, and high emergency-response pressure.

Control measures

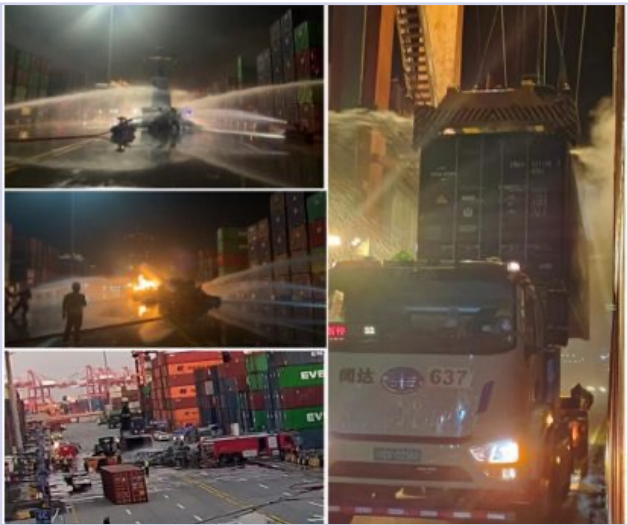
SP188 should not be treated as a routine “non-DG” acceptance route. The recommended control stance is to make the invisible visible before loading and the total concentration of batteries within the CTU should be limited. Where information is incomplete or inconsistent, the shipment should be escalated for cargo safety review before onboard exposure is created.

Annex - Photo Evidence Extracted from the CINS Incident Data from 2024 onwards

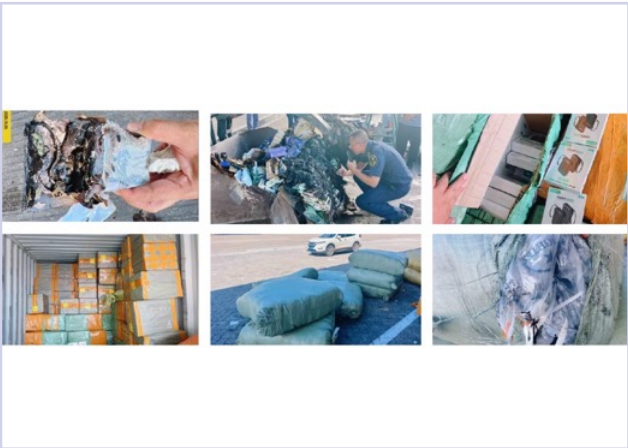
These photos were intended to support discussions about the consequences of lithium-ion battery SPI88 fires, packaging and vanning quality issues, cargo concentration, and emergency response challenges.



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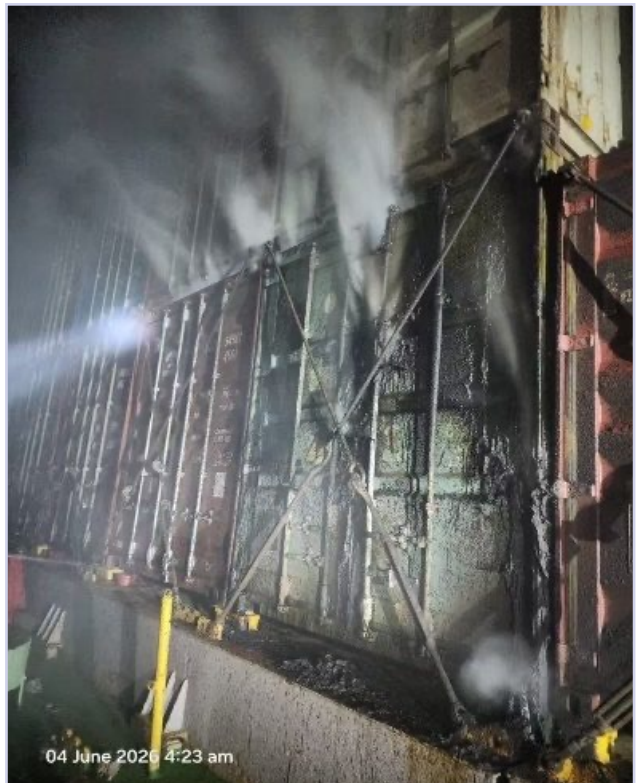
Annex - Photo Evidence Extracted from the CINS Incident Data from 2024 onwards



View of container budge out condition, Dents, scratched mark and distorted condition	View of container budge out condition, Dents, scratched mark and distorted condition
	
View of container budge out condition, Dents, scratched mark and distorted condition	View of container budge out condition, Dents, scratched mark and distorted condition
	
View of container budge out condition, Dents, scratched mark and distorted condition	View of container budge out condition, Dents, scratched mark and distorted condition

View of cargo was found in burnet condition/cartons were torn condition/Cut condition	View of verified cartons/cargo which was matching as per documents
	
View of verified cartons/cargo which was matching as per documents	View of cargo was found in burnet condition/cartons were torn condition/Cut condition
	
View of cargo packing	View of cargo packing

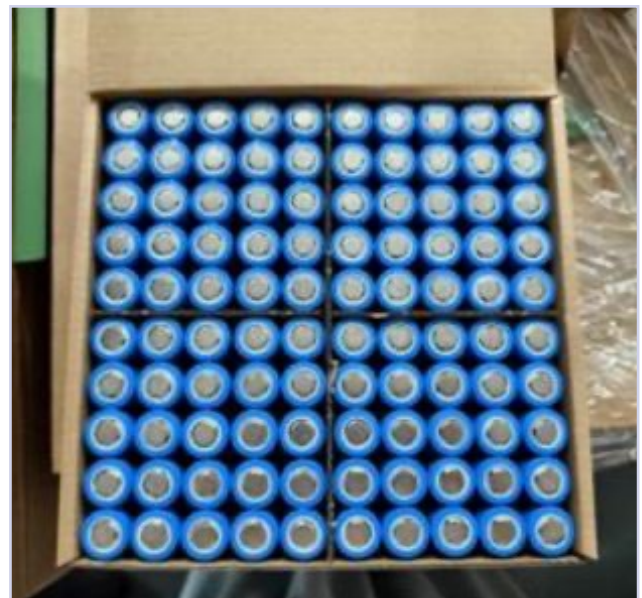
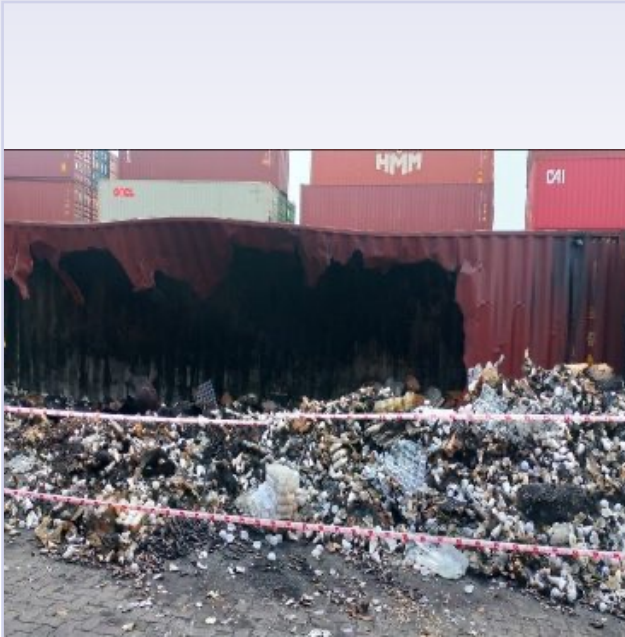
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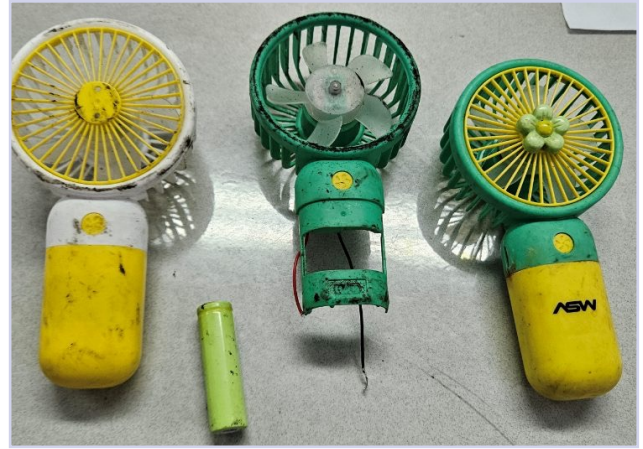
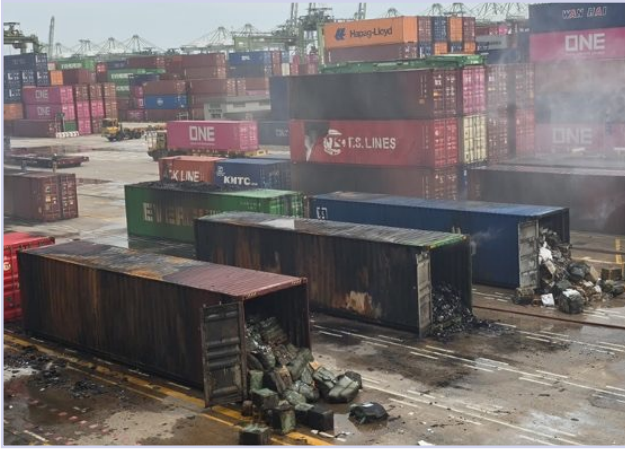


11. The view of the small batteries type 18650 in damaged condition was scattered in the damaged Container No. EGHU 8316805.



20. The view of TWS (True Wireless Stereo) one of the cargo found damaged and melted.

Annex - Photo Evidence Extracted from the CINS Incident Data from 2024 onwards





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