

OPERATIONAL GUIDELINES FOR LITHIUM-ION BATTERIES SHIPPED UNDER SP 188

Version 1.0 November 2026

CONTENTS

03 **Foreword**

04 **Scope**

05 **Section 1 Operational Guidance**

05 1. Booking Information, Cargo Acceptance and Verification

07 2. Visibility of Cargo Information and Planning

09 3. Thermal-Risk-Based Stowage Planning

11 4. Enhanced Firefighting Preparedness and Crew Competency

14 5. Shore-Based Emergency Response Support

15 6. Continuous Improvement and Industry Knowledge Sharing

15 7. Key Principles

16 **Section 2 Regulatory Reference**

16 1. Lithium-ion Batteries Subject to SP 188

16 2. IMDG Code Amendment 42-24 - Special Provision 188 Summary

17 3. Lithium-ion Battery Classification Where SP 188 Can Be Applied

18 4. Summary of the Special Provisions

20 **Appendix 1: Reference Text for SP 188**

21 **About CINS / Contact Information**

DISCLAIMER

The purpose of this CINS guidance is to provide additional information to CINS Members to assist in their risk assessment of lithium-ion battery container transports. Regulations take precedence. Always conform to regulatory requirements. This guidance document is intended for qualified industry professionals. Users of this document should carry out their own risk assessment and ensure the guidance is fit for their purpose. This guidance does not replace existing company procedures. Users of the guidance are expected to satisfy themselves that the information is relevant and suitable for the purposes to which it is to be applied. Care has been taken to ensure the accuracy of the information, but no warranty of accuracy is implied or given. In no circumstances whatsoever shall CINS or the contributors be liable to any person whatsoever for any loss or damage arising out of, or in connection with, the supply (including negligent supply) or use of this information.

COPYRIGHT

Copyright © CINS reserved. Users of this document may reproduce or transmit it verbatim only. Any other use, including derivative guidance based on the document, in any form or by any means is subject to CINS prior permission.

CINS Cargo Incident Notification System

Foreword

The maritime transport of lithium-ion batteries has increased significantly in recent years. Although almost all shipments of lithium-ion batteries arrive safely at their destination, CINS LiB Incident Reports have identified isolated fires and regulatory issues which present operational, safety and emergency response challenges throughout the maritime transport chain.

Applicable Regulations and Special Provisions for lithium-ion batteries are complex and require Booking Personnel to consider several complex operational risk assessment issues and regulatory compliance when accepting transport of lithium-ion batteries.

This guidance document focuses on maritime container transport in accordance with IMDG Special Provision SP 188 - which has been identified by CINS incident reporting as an issue of significant concern.

SP 188 was developed in 1998 by the UN Transport of Dangerous Goods Model Regulations. The UN Model Regulations are applied within several National and Regional regulations and SP188 was incorporated within IMDG Amendment 30 00 and applied in the year 2000.

The purpose of SP188 is to provide regulatory relief for eligible small lithium cells and batteries that meet all applicable conditions of the provision, including the relevant package gross-mass limitation. However, since the year 1998 (when SP188 was introduced), development of battery performance has effectively expanded the power and scope of batteries capable of qualifying for the Special Provision.

IMDG Code does not impose an aggregate SP 188 battery quantity or energy limit at freight-container level.

This is significant because a vessel may carry substantial aggregate battery energy under SP188, without that aggregate quantity being apparent from the dangerous-goods manifest.

CINS Investigation of lithium-ion battery safety incidents, cargo verification inspections and booking verification processes have identified issues stemming from SP188. This guidance document is derived from the outcome of the investigation and subsequent CINS Work Group Members with direct experience of the issues.

The Work Group identified risks emanating from several reasons including shippers' lack of training, misunderstanding of regulations and provisions, improper testing, improper packing specification, partial and selective adherence to SP188 and sometimes fraudulent cargo declarations. Combined with a potential full container load of 30kg packages, the safe transport risk could be significant.

In response to these concerns, in August 2026, CINS published a Recommendation Paper regarding IMDG Code Special Provision 188 (SP188), supporting the review of the regulatory framework governing lithium-ion battery shipments. However, Regulatory Reviews require extensive consultation and considerable time before entering into force.

This SP188 guidance is intended to assist CINS Members by raising awareness of issues identified through CINS incident reporting and investigations and to support the incorporation of appropriate risk management measures into booking and transport processes.

Several industry stakeholders have highlighted that while SP188 may provide regulatory relief from certain IMDG Code requirements, the presence of lithium-ion batteries should remain visible throughout the maritime transport chain.

CINS considers cargo visibility, information transfer, risk awareness and emergency preparedness to be important elements supporting the safe transportation of SP188 lithium-ion battery shipments.

SP188 may provide regulatory relief, but should not result in operational invisibility.

Scope

CINS IMDG SP188 guidance is intended to assist CINS Members in the development and implementation of risk assessment processes for the transportation of SP188 lithium-ion battery shipments.

The guidance focuses on practical operational measures intended to improve Cargo Visibility, strengthen Risk Awareness, support Thermal-Risk-Based Stowage Planning and enhance Firefighting Preparedness.

This guidance should not be interpreted as implying that used, repaired or second-hand lithium batteries automatically qualify for SP188.

The guidance does not alter, replace or amend any regulatory requirements applicable to SP188 shipments.

- Section 1 provides operational guidance intended to support risk-informed decision making throughout the maritime transport chain.
- Section 2 provides a regulatory reference summary of IMDG SP188 and related provisions.

The guidance is founded upon a practical risk-management sequence:

Information → Verification → Visibility → Planning → Preparedness

The guidance refers to lithium batteries that are subject to IMDG SP188. Reference text for SP188 is provided in Appendix 1 for information only.

Always study and apply the IMDG Code and applicable Special Provisions in their entirety.

For the purpose of this guidance, Higher-Risk SP188 Cargo refers to shipments identified through individual Member risk-assessment processes.

Section 1 Operational Guidance

1. Booking Information, Cargo Acceptance and Verification

This section emphasises the importance of Booking Information, Cargo Visibility and Information Management in supporting risk-informed operational decision-making throughout the maritime transport chain.

For identified Higher-Risk SP188 Cargo, information should not only be obtained during booking but should remain visible, accessible and available to relevant stakeholders throughout the cargo acceptance, terminal handling, stowage planning, vessel operation and emergency response processes.

Cargo Visibility does not begin onboard the vessel. It begins with the availability of accurate, reliable and sufficient information at the booking stage. The ability to verify cargo, assess risk, develop stowage plans, maintain situational awareness and respond effectively during emergencies depends largely upon the quality and continuity of information available throughout the transport chain.

Members are therefore encouraged to consider Booking Information, Cargo Visibility and Information Management as integrated elements of an effective risk-management process.

Booking Information drives Cargo Visibility, and Cargo Visibility enables Risk Management.

1.1 Booking Information

Cargo Visibility begins at booking. Members should consider Booking Information as the foundation of the risk-management process.

The effectiveness of cargo acceptance, verification activities, stowage planning, shipboard situational awareness, emergency preparedness and incident response depends largely upon the quality, accuracy and visibility of information available at the time of booking.

Historically, SP188 cargo may not always have been visible through traditional Dangerous Goods management systems due to the regulatory relief provided under Special Provision 188.

However, the absence of Dangerous Goods declaration requirements does not eliminate operational risk. Cargo Visibility can only be achieved when sufficient information is captured at the booking stage and retained throughout the transport chain.

Booking Information may include the following:

- Cargo description
- Battery type
- Applicable UN number
- Confirmation of SP188 applicability
- LIB/LIO cargo attributes
- Battery quantity
- Consignor and consignee information
- Battery manufacturer information where available
- UN 38.3 Test Summary availability
- Supporting compliance information
- Other information required by carrier risk-management procedures

The objective is not merely regulatory compliance. The objective is to support informed operational decision-making throughout the maritime transport chain.

Where operationally feasible, information relating to identified Higher-Risk SP188 Cargo should remain available and accessible throughout subsequent transport activities, including cargo acceptance, terminal handling, stowage planning, vessel operations and emergency response support.

1.2 Managing Mis-declaration

Booking Personnel are faced with a difficult task to combat Mis-declaration of cargo. Verification screening processes and AI (Artificial Intelligence) have significantly advanced the detection rate, but the skill and attention of Booking Personnel remain highly valued.

Mis-declaration can occur for several reasons including shippers' lack of training, misunderstanding of regulations and provisions. There are also indications of fraudulent cargo declaration to avoid the responsibility and cost of compliance with IMDG regulations.

There are instances of apparently appropriate declaration to SP188, but the required tests improperly undertaken or the lithium-ion batteries improperly packed.

Combined with a potential full container load of 30kg packages, the safe transport risk could be significant.

1.3 Know Your Customer

The identification of mis-declared cargo begins with Knowing Your Customer (KYC) and establishing risk-based processes that consider customer background, cargo profile, shipment history and previous compliance performance.

The objective is to improve understanding of customers and cargo profiles and support informed cargo acceptance decisions.

KYC processes may assist in improving Cargo Visibility, supporting cargo acceptance decisions and strengthening risk awareness prior to shipment acceptance.

To consider: customer business profile, cargo characteristics, shipment history and patterns, compliance records, previous cargo-related incidents where available, and experience in transporting lithium-ion battery shipments.

- Beneficial Cargo Owners (BCOs). Often the manufacturer with direct knowledge of battery technology, ratings and test and dedicated personnel managing regulatory compliance
- Non-Vessel Operating Common Carriers (NVOCCs) / Freight Forwarders. Often focused on economic logistics and cargo consolidation. Transporting a diverse range of cargoes subject to the range of IMDG regulations, skills and attention to each and every cargo regulatory complexity may be compromised

Additional consideration may be given to cargo consolidation activities, the diversity of underlying cargo interests, cargo screening processes and the effectiveness of controls applied to cargo accepted from multiple customers.

1.4 Cargo Inspection as a Risk Management Tool

Consider cargo inspections as part of a risk-based KYC and cargo acceptance process prior to booking acceptance.

Cargo inspections may assist in verifying declarations, confirming consistency between cargo descriptions and the cargo presented, improving understanding of customer operations, supporting acceptance decisions and enhancing Cargo Visibility.

The decision to conduct inspections should remain subject to individual carrier policies, operational practicality and risk assessment considerations.

Inspections are not intended to replace established Booking Verification or cargo screening processes - but may provide an additional layer of assurance where higher-risk cargo, new customers, limited visibility or other indicators have been identified.

1.5 Higher-Risk Customers and Cargo

Additional commitment of carrier resources may be required when higher-risk customers, cargoes or shipment profiles have been identified.

Members may consider enhanced booking reviews, periodic customer reviews, additional cargo and document verification, cargo inspection, targeted operational monitoring, escalation and management review processes.

As part of a risk-based cargo acceptance process, Members may consider available information relating to the shipper's quality management arrangements, production traceability systems and supporting evidence chain where relevant. Such information may assist credibility assessment but should not be interpreted as proof of regulatory compliance or transport safety.

1.6 SP188 Document Verification

SP188 states that cells and batteries meeting the listed criteria are:

“not subject to other provisions of this Code”

except for the specific conditions stated within SP188 itself.

That is the legal basis for exemption from the dangerous goods declaration requirement.

Freight forwarders may use terminology derived from the ICAO Technical Instructions or IATA Dangerous Goods Regulations, including “Section IB” or “Section II”.

Such terminology is mode-specific and should be interpreted carefully because air-transport requirements differ from IMDG provisions. Use of ICAO/IATA terminology does not in itself demonstrate compliance with IMDG SP188. Use of “Section II” for standalone UN 3480 batteries may warrant further verification.

Further, the use of air transport terminology such as Section II or Section IB should not be relied upon as evidence of compliance with IMDG SP188.

ICAO/IATA (air transport) rules differ from IMDG and are stricter in several areas.

1.7 Package Specification

- be protected against short circuit
- be secured against movement
- be packed in strong outer packaging unless equipment exception applies

1.8 Package Marks

Packages usually require the lithium battery mark unless an exception applies. The mark includes:

- battery symbol
- applicable UN number

1.9 Tests

Cells and batteries must comply with the applicable requirements of IMDG 2.9.4, including:

- have passed UN Manual of Tests and Criteria Part III subsection 38.3
- Quality Management Programme requirements of IMDG 2.9.4.5
- Test Summary requirements of IMDG 2.9.4.7

A Lithium Battery Test Summary in accordance with IMDG 2.9.4.7 shall be made available as required and may support booking verification, cargo acceptance and compliance-review processes. It is generally provided upon request rather than forming part of the normal transport documentation.

This is mandatory even under SP188.

1.10 Carrier/Operator Requirements

Ocean carriers might require additional information:

- a cargo information sheet
- battery declaration
- proprietary forms

2. Visibility of Cargo Information and Planning

2.1 SMDG Attribute Codes (LIB and LIO)

Members are encouraged to use recognized industry standards, including the SMDG Attribute Codes LIB for Lithium Batteries (Non-DG) and LIO for Lithium Ion Batteries (Non-DG), to support consistent identification and communication of lithium-ion battery cargo.

Standardised cargo attributes may support cargo acceptance, terminal planning, Thermal-Risk-Based Stowage Planning, shipboard situational awareness and emergency response preparedness.

2.2 Cargo Visibility Through the Transport Chain

Cargo Visibility is most effective when maintained beyond the booking stage.

Where operationally feasible, information identifying higher-risk cargo should remain available through carrier systems, terminal systems, operational data exchanges, vessel planning systems, shipboard cargo information and emergency response support systems.

Members are encouraged to consider whether cargo identity remains visible throughout booking, acceptance, manifesting, terminal handling, stowage planning, vessel operations and emergency-response activities.

SP188 may provide regulatory relief, but should not result in operational invisibility.

2.3 Terminal Information Systems

Members and terminal operators are encouraged to review whether their information systems can receive, retain, process and transmit recognized cargo attributes, including LIB and LIO.

Information should, where operationally feasible, remain available throughout handling, storage and vessel planning processes and be visible to terminal personnel, carrier local offices, stowage planners, vessel operators, shipboard personnel and emergency response teams.

2.4 Thermal-Risk Considerations for Terminal Storage Planning



Figure 2.1 Thermal Image Demonstrating Temperature Variations within a Container Yard

The thermal image illustrates significant differences in container surface temperatures within the same terminal storage area. Direct sunlight exposure, container arrangements, surrounding structures and local environmental conditions may create substantially different thermal environments and heat loads.

For identified higher-risk cargo, including higher-risk SP188 lithium-ion battery shipments, terminal operators may consider thermal exposure when planning yard locations and storage arrangements.

Considerations may include prolonged Direct Sunlight Exposure, heat accumulation, stacking arrangements, emergency accessibility, separation from higher-consequence cargo and potential fire-propagation pathways.



Figure 2.2 Example of Temperature Management Measures for Higher-Risk and Temperature-Sensitive Cargo at a Container Terminal

Some terminal operators have introduced temperature-management measures during periods of elevated ambient temperature, including designated storage areas, thermal surveillance, temperature monitoring, water-spray cooling, enhanced inspections and fire patrols. These examples are provided for general operational consideration and do not establish mandatory terminal procedures.

Not all terminal storage locations present the same thermal risk.

2.5 Operational Data Exchange and BAPLIE Visibility

Members and terminal operators are encouraged to consider whether LIB and LIO information can be retained and transmitted through BAPLIE and other relevant operational data exchanges.

Maintaining such information may support Thermal-Risk-Based Stowage Planning, risk-informed loading decisions, fire scenario planning, shipboard situational awareness and incident response.

The objective is not only to identify cargo at the booking stage, but also to ensure that relevant cargo information remains available to terminal operators, vessel planners, shipboard personnel and emergency-response organizations throughout the transport chain.

Maintaining visibility of cargo information beyond the booking process may support cargo acceptance, manifesting, Thermal-Risk-Based Stowage Planning, shipboard situational awareness and emergency response preparedness.

2.6 Vessel Sharing Arrangements (VSAs) and Space Sharing Arrangements

Where higher-risk SP188 lithium-ion battery shipments have been identified, Members are encouraged to maintain Cargo Visibility throughout exchanges involving participating carriers, terminals, vessel operators and other relevant stakeholders.

Cargo visibility should be maintained during transshipment, carrier handovers, terminal transfers, vessel sharing arrangements and other operational interfaces where cargo information may otherwise be lost or degraded.

3. Thermal-Risk-Based Stowage Planning

The objective of Thermal-Risk-Based Stowage Planning is to support risk-informed stowage decisions for identified higher-risk cargo and reduce the potential consequences of a container fire incident.

3.1 General Principles

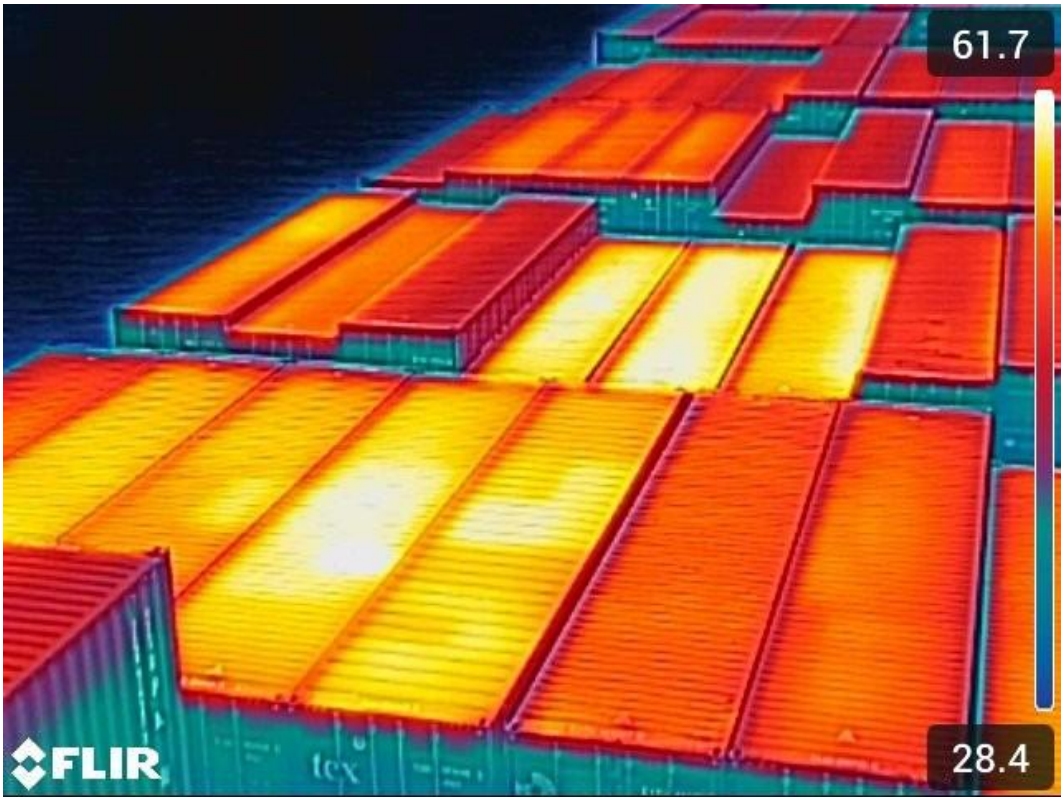


Figure 3.1 Thermal Image Demonstrating Variations in Container Surface Temperature Onboard a Container Ship

The thermal environment experienced by a container may vary significantly depending on vessel design, stowage arrangement, cargo distribution, weather conditions, Direct Sunlight Exposure and proximity to surrounding heat sources. Thermal exposure should be considered as one of several risk factors supporting stowage decision-making.

3.2 On-Deck Stowage Preference

Where operationally feasible, identified higher-risk SP188 lithium-ion battery shipments may be considered for on-deck stowage to improve accessibility for monitoring and firefighting operations.

Suitability should be evaluated in accordance with applicable requirements, vessel characteristics and carrier procedures.

3.3 Separation From Accommodation Areas

Where operationally feasible, consideration may be given to avoiding locations immediately adjacent to accommodation spaces, navigation spaces, critical control spaces and essential ship systems.

3.4 Separation From Heat Sources

Consideration may be given to avoiding locations close to machinery spaces, engine room boundaries, heated tanks, heated cargoes and other areas exposed to elevated temperatures.

3.5 Minimising Direct Sunlight Exposure

Where operationally feasible, consideration may be given to minimizing prolonged Direct Sunlight Exposure. Not all container stowage positions present the same thermal risk.

3.6 Avoiding Excessive Concentration of Identified Higher-Risk Cargo

Where operationally feasible, Members may consider avoiding excessive concentration of identified higher-risk SP188 lithium-ion battery cargo within a single stowage area.

Concentrating large quantities of identified lithium-ion battery cargo within one location may increase the potential consequences of a fire and complicate firefighting and emergency-response operations.

This guidance does not establish mandatory segregation distances or quantity limitations.

3.7 Consequence-Based Stowage Review

Members may consider reviewing the potential consequences associated with adjacent cargoes when planning stowage for identified higher-risk lithium-ion battery shipments. Consideration may include proximity to explosives, Class 2 gases, Class 3 flammable liquids, Class 5.1 oxidizers, Class 5.2 organic peroxides, significant heat sources and other consequence-amplifying cargoes.

This guidance does not replace applicable IMDG Code segregation requirements and should not be interpreted as introducing additional mandatory segregation rules.

4. Enhanced Firefighting Preparedness and Crew Competency

4.1 Fire Scenario Planning and Operational Preparedness

Effective response to container fires requires appropriate firefighting capability, realistic emergency planning and well-trained personnel.

Lithium-ion battery related container fires may involve thermal runaway propagation, explosions, jet flames, toxic gas release, re-ignition and rapid escalation. At sea, response options may be limited and external assistance may not be immediately available.

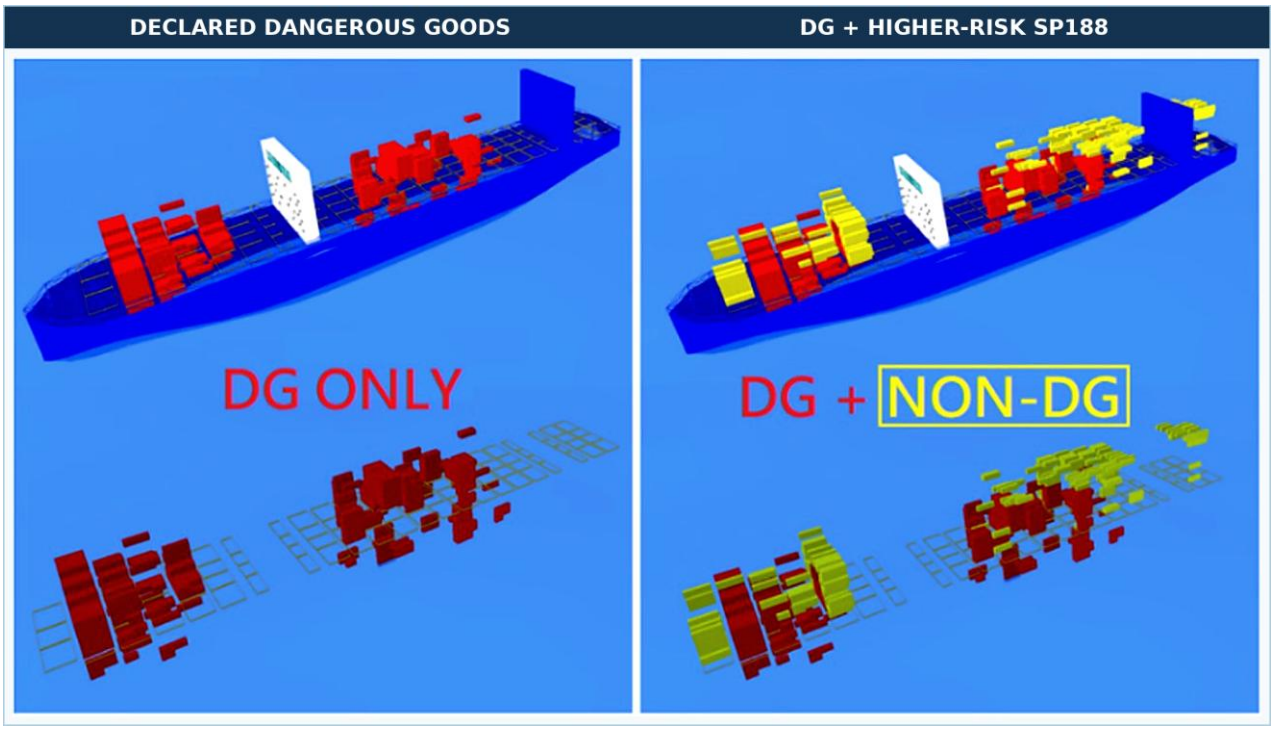


Figure 4.1 Illustrative Distribution of Dangerous Goods and Higher-Risk SP188 Cargo Onboard a Container Ship

Red containers represent declared Dangerous Goods. Yellow containers represent identified higher-risk SP188 lithium-ion battery cargo.

- The total quantity and variety of Dangerous Goods carried onboard
- The quantity and distribution of identified higher-risk SP188 lithium-ion battery cargo
- Potential interactions between cargo hazards
- Potential fire propagation and heat-transfer pathways
- Accessibility for firefighting and boundary-cooling operations
- Resources required for extended emergency response operations

Investments in firefighting capability, crew competency, emergency preparedness and specialist response arrangements should be viewed not only as safety measures, but also as measures intended to protect valuable

vessel assets and support business resilience. The allocation of appropriate resources may therefore represent a prudent risk management investment for vessel owners and operators.

In the event of a lithium-ion battery container fire, where practicable, consideration may be given to using water-mist lances or other suitable piercing tools to fill the surrounding containers with water, creating a water-filled protective zone around the burning container to help prevent or limit the spread of fire. The concept is illustrated below.



Figure 4.2



Figure 4.3



Figure 4.4

Figures 4.2–4.4 Protective-zone concept illustrations. Red: burning container; Blue: water-filled containers forming a protective fire barrier; Yellow: adjacent containers.

4.2 Firefighting Capability on Existing Vessels

For container ships constructed before the entry into force on 1 January 2016 of the enhanced container ship firefighting provisions adopted by IMO through Resolution MSC.365(93), Members are encouraged to consider, where operationally feasible, voluntarily providing firefighting capabilities comparable to those fitted on newer vessels.

- Water Mist Lance
- Mobile Water Monitors
- Enhanced fire-monitoring equipment
- Additional equipment to support simultaneous container penetration and boundary-cooling operations

Selection of equipment should take account of vessel design, access limitations, firefighting philosophy, crew competency and integration with existing emergency response arrangements.



Figure 4.5 SOLAS-compliant water mist lance



Figure 4.6 SOLAS-compliant mobile water monitor



Figure 4.7 Example of Mobile Water Monitor Deployment During Actual Lithium Battery Container Firefighting Operations

Mobile Water Monitors may assist in delivering sustained cooling and water application, reducing personnel exposure and supporting extended cooling operations where access is restricted.

4.3 Firefighting Strategies for On-Deck and Under-Deck Fire Scenarios

Members are encouraged to assess fire behaviour, escalation pathways and operational limitations when selecting firefighting strategies for identified higher-risk SP188 lithium-ion battery cargo.

Firefighting considerations may differ significantly between on-deck and under-deck lithium-ion battery container fire scenarios.

For on-deck incidents, direct observation, thermal monitoring, boundary cooling and water application may generally be more accessible.

For under-deck incidents, access constraints, smoke accumulation, fixed-fire-extinguishing arrangements, thermal-runaway development, flooding considerations and vessel-stability implications may require different assessment and response strategies.

For under-deck lithium-ion battery fire scenarios, Members may consider:

- Early assessment of fixed-fire-extinguishing system deployment
- The limitations that may apply to CO_2 systems during thermal-runaway events
- Potential requirements for water application, cooling or flooding strategies
- Vessel stability and structural considerations
- Early engagement of shore-based technical specialists and emergency-response advisors

Members are encouraged to consider these differences in emergency planning, drills, decision-support procedures and shore-based emergency-response arrangements.

4.4 Defensive Cooling, Water Application and Temporary Thermal Barriers

The cooling of containers surrounding a burning container, and where appropriate the controlled use of container penetration techniques, may be considered as a means of establishing temporary thermal barriers and reducing heat transfer to adjacent cargo.

Members are encouraged to consider whether vessel firefighting arrangements provide adequate capability for sustained cooling and water application during lithium-ion battery container fire incidents.

Such capability may include:

- HydroPen-type container penetration systems
- Water Mist Lances
- Fixed Water Monitor systems
- Mobile Water Monitors
- Water-mist application systems
- Other technologies capable of supporting prolonged cooling, boundary protection and fire-consequence mitigation

Scenario-based assessments and drills may assist in determining the appropriate combination of equipment and resources required to support extended firefighting operations.

The suitability of specific arrangements should be assessed in accordance with vessel design, operational limitations, crew competency, emergency-response procedures and the anticipated fire scenario.

4.5 Thermal Imaging Capability

Members are encouraged to consider carrying Thermal Imaging Cameras (TICs) suitable for shipboard emergency response, with performance capabilities comparable to those commonly used by professional shore-based fire services.

TICs may support fire patrols, early detection, monitoring, heat-transfer assessment, post-fire inspection and Search and Rescue operations.

4.6 Firefighter's Outfits and SCBA Considerations

Members are encouraged to periodically assess whether the number of Firefighter's Outfits and Self-Contained Breathing Apparatus carried onboard remains appropriate for vessel size, cargo profile, extended fire scenarios, multiple teams, crew rotation, toxic-gas environments and Search and Rescue requirements.

The assessment should reflect each carrier's risk management approach rather than rely solely upon minimum regulatory requirements.

4.7 Crew Training and Drills

Training and exercises should address:

- lithium-ion battery fire awareness
- thermal-runaway indicators
- explosion, jet-flame and toxic-gas hazards
- operation of Water Mist Lances
- HydroPen equipment
- Fixed and Mobile Water Monitor systems
- Thermal Imaging Cameras
- container penetration and boundary-cooling procedures
- temporary thermal barriers
- safe approach considerations
- extended operations and crew rotation

5. Shore-Based Emergency Response Support

Members may consider establishing arrangements that provide access to qualified shore-based emergency response specialists and technical advisors. Such support may assist in container fire assessment, thermal runaway evaluation, firefighting strategy development, casualty management, emergency decision support and post-incident recovery planning.

The objective is not to replace the authority of the Master or onboard emergency response team, but to supplement shipboard decision-making with additional technical expertise where appropriate.

Effective emergency response benefits from the integration of shipboard and shore-based expertise.

6. Continuous Improvement and Industry Knowledge Sharing

Members are encouraged not only to report cargo-related incidents through established CINS reporting mechanisms, but also to contribute operational insights, practical experiences and lessons learned through CINS Member Meetings, webinars, working groups, training activities and other knowledge-sharing initiatives.

Experience gained through shipboard operations, emergency exercises, cargo inspections, thermal-monitoring activities and incident response operations may improve Cargo Visibility, Thermal-Risk awareness, emergency preparedness, firefighting effectiveness and risk-informed operational decision-making.

Cargo safety should be regarded as a shared responsibility rather than a competitive advantage.

7. Key Principles

The objective of this guidance is not to create new regulatory requirements. The objective is to improve operational awareness, cargo visibility, risk-informed planning and emergency preparedness for higher-risk SP188 lithium-ion battery shipments throughout the maritime transport chain.

- Cargo Visibility begins at booking.
- Cargo Visibility starts with KYC.
- Cargo Visibility should remain with the cargo throughout the maritime transport chain.
- Cargo Visibility supports Thermal-Risk-Based Stowage Planning and Firefighting Preparedness.
- Not all terminal storage locations present the same thermal risk.
- Not all container stowage positions present the same thermal risk.
- Risk management should not be driven solely by minimum regulatory compliance, but by the operational risks faced by each carrier.
- Investments in preparedness, firefighting capability and emergency response arrangements should be viewed as prudent risk management investments that help protect people, vessel assets and business continuity.
- Improving the safe transportation of lithium-ion batteries requires visibility, preparedness, collaboration, knowledge sharing and continuous improvement across the maritime transport chain.
- SP188 may provide regulatory relief, but should not result in operational invisibility.

Section 2 Regulatory Reference

1. Lithium-Ion Batteries Subject to SP188

SP 188 may be applied to eligible lithium-ion cells and batteries assigned to UN 3480 and UN 3481, provided all applicable conditions of SP 188 are satisfied. Special Provisions are identified by reference to the UN No of the Lithium-ion Battery within IMDG Chapter 3.2 Dangerous Goods List. Applicable Special Provisions (SP) are detailed in column 6 and detailed in Chapter 3.3.

SP188 provides relief from all other IMDG Code provisions except for the specific conditions expressly stated within SP188. Cells and batteries complying with all applicable SP188 requirements are not subject to the other provisions of the IMDG Code.

The principal limits and packaging requirements are confirmed in Amendment 42-24 text. Battery-mark provisions require the applicable UN number to appear on the mark.

Note:

- IMDG SP 188 does not impose a maximum number of cells/batteries per package. Instead, the normal standalone SP 188 package is limited to 30 kg gross mass.
- The “4 cells or 2 batteries” figure is primarily relevant to the battery-mark exception for batteries installed in equipment, not a general SP 188 quantity limit.
- SP 188 does not mean that the battery is to be transported as “Non-Regulated Goods” (sometimes known as “Non-Dangerous” or Non-Hazardous”).
- SP188 means that qualifying cells and batteries are relieved from all other provisions of the IMDG Code, provided every applicable condition of SP188 is fully satisfied.

2. IMDG Code Amendment 42-24 - Special Provision 188 Summary

This guidance focuses primarily on lithium-ion batteries assigned to UN 3480 and UN 3481. The following table provides a broader summary of the battery types covered by SP 188 for regulatory context only.

SP188 requirement	Lithium metal / alloy	Lithium-ion	Sodium-ion	Practical requirement
Maximum per cell	≤1 g lithium content	≤20 Wh	≤20 Wh	Above these limits, fully regulated DG provisions apply
Maximum per battery	≤2 g aggregate lithium	≤100 Wh	≤100 Wh	Above these limits → fully regulated DG provisions apply
Wh marking on battery case	N/A	Required*	Required	*Lithium-ion batteries manufactured before 1 Jan 2009 have an exception
Design/type testing	Required	Required	Required	Must comply with applicable IMDG 2.9.4/2.9.5, including applicable UN Manual of Tests and Criteria
Inner packaging	Except if installed in equipment	Same	Same	Cells/batteries completely enclosed by inner packaging
Protection against short circuit	Required	Required	Required	Includes protection against contact with conductive materials within the package
Strong outer packaging	Required	Required	Required	Inner packages placed in strong outer packaging, subject to the equipment provisions
Batteries installed in equipment	Protected	Protected	Protected	Protect against damage and short circuit and secure against movement and accidental operation
Battery mark	Normally required	Normally required	Normally required	Mark under IMDG 5.2.1.10, displaying the applicable UN number

SP188 requirement	Lithium metal / alloy	Lithium-ion	Sodium-ion	Practical requirement
Mark exception — button cells	Yes	Yes	Yes	The exception applies where packages contain only button-cell batteries installed in equipment. Although uncommon for lithium-ion and sodium-ion shipments, the exception remains available where the applicable SP188 conditions are met.
Mark exception — small equipment consignments	Yes	Yes	Yes	No mark where package contains ≤4 cells or ≤2 batteries installed in equipment, provided there are no more than 2 such packages in the consignment
1.2 m drop test	Required*	Required*	Required*	* Package shall be capable of withstanding a 1.2 m drop test in any orientation without damage to cells or batteries, without shifting of contents that allows battery-to-battery or cell-to-cell contact, and without release of contents, except when cells or batteries are installed in equipment. Clarification: The package design must be capable of meeting the prescribed performance standard. The regulation does not require every package to be individually tested.
Maximum package gross mass	30 kg*	30 kg*	30 kg*	*Except when installed in or packed with equipment
Overpack	Requirements apply	Same	Same	Battery mark must remain visible or be reproduced on overpack; "OVERPACK" marking applies as required
Class 9 / 9A label	Not required	Not required	Not required	Not required under IMDG SP188 when all applicable SP188 conditions are satisfied.
IMDG dangerous goods declaration	Not required	Not required	Not required	An IMDG Dangerous Goods Declaration is not required under SP188 when all applicable SP188 conditions are satisfied.

- Future amendments introduced in Amendment 43-26 are not reflected in this summary unless specifically stated.
- IMDG Code 2024 Edition, Amendment 42-24, mandatory from 1 January 2026.
- IMDG Code 2026 Edition, Amendment 43-26 mandatory amendment from 01.2028.

Reference text for SP188 is provided in Appendix 1 of this guidance.

3. Lithium Battery Classifications Where SP188 Can Be Applied

Under the currently mandatory IMDG Code Amendment 42-24, lithium-ion batteries can fall under several UN entries depending on how they are presented for transport.

UN no.	Proper shipping name / situation	Class	Special provisions	Key relevance
UN 3480	Lithium-ion batteries, including lithium-ion polymer batteries (shipped by themselves)	9	188, 230, 310, 348, 376, 377, 384, 387	Main entry for standalone Li-ion cells/batteries
UN 3481	Lithium-ion batteries packed with equipment, including lithium-ion polymer batteries	9	188, 230, 310, 348, 360, 376, 377, 384, 387, 390	Battery is in the same package as equipment but not installed in it
UN 3481	Lithium-ion batteries contained in equipment, including lithium-ion polymer batteries	9	188, 230, 310, 348, 360, 376, 377, 384, 387, 390	Battery is installed/contained in the equipment

Note: SP188 may be applied only to shipments assigned to UN 3480 or UN 3481 that comply with all applicable SP188 requirements, including watt-hour limits, testing, marking, packaging and all other prescribed conditions.

UN 3480 and UN 3481 shipments that do not meet every applicable SP188 condition remain subject to the relevant fully regulated IMDG dangerous-goods provisions.

If all applicable SP188 conditions are satisfied, the cells and batteries are not subject to the other provisions of the IMDG Code and are not transported as fully regulated dangerous goods.

The shipper normally does NOT need:

- IMO Dangerous Goods Declaration
- UN specification packaging
- Class 9 label
- Dangerous goods transport document

However, the UN38.3 Test Summary shall be made available upon request in accordance with IMDG 2.9.4.7

4. Summary of the Special Provisions

Note: Refer to the full text provided by IMDG and comply with the required regulations and Special Provisions.

SP	Applies principally to	Purpose
188	3480, 3481	The important small-cell/battery exemption. For Li-ion: ≤20 Wh per cell and ≤100 Wh per battery, subject to all SP188 conditions. Qualifying batteries are not subject to the other provisions of the Code.
230	3480, 3481	Establishes the fundamental conditions under which lithium cells/batteries may be transported under these UN entries, linked to lithium-battery requirements of 2.9.4, including UN 38.3 testing.
310	3480, 3481	Special arrangements applicable to pre-production prototype cells and batteries transported for testing, and to cells or batteries from production runs consisting of not more than 100 cells or batteries transported under the applicable approved conditions. The transport-for-testing condition applies to pre-production prototypes and should not be interpreted as applying to all low-production-run cells or batteries.
348	3480, 3481	Requires batteries manufactured after the specified date to have the watt-hour rating marked on the outside of the battery case.
360	3481	Distinguishes vehicles from equipment containing batteries. Vehicles powered only by Li-ion batteries are now assigned to UN 3556, rather than UN 3481.
376	3480, 3481	Damaged or defective cells/batteries. Those liable to dangerously react, produce flame/heat or dangerous gas require particularly stringent provisions.
377	3480, 3481	Cells/batteries transported for disposal or recycling.
384	3480, 3481, 3556	Requires use of the lithium battery Class 9 label (9A) where the normal Class 9 label provisions apply.
387	3480, 3481	Deals with batteries containing both lithium-ion cells and lithium-metal cells that are not designed to be externally charged and which are assigned to UN3090 or UN3091 as applicable.
389	3536	Special requirements for lithium batteries installed in a cargo transport unit, including securing, protection against short circuit/accidental operation and CTU placarding/UN-number marking.
390	3481	Deals with a package containing a combination of batteries contained in equipment and batteries packed with equipment, including marking and documentation.
388	3556	Defines/classifies battery-powered vehicles and distinguishes the vehicle entries from equipment and other vehicle classifications.

SP	Applies principally to	Purpose
405	3556	Provides specific relief from certain package marking/labelling requirements where the vehicle is not completely enclosed by packaging/crating that prevents ready identification.
961	3556	IMDG-specific conditions under which certain vehicles may be not subject to the provisions of the Code.
962	3556	Requirements applicable to vehicles not meeting SP961, including battery protection and the applicable Class 9 transport regime.

Appendix 1 Reference Text for SP188

This reference text is based on IMDG Code Amendment 42-24 and is provided for information only. Users shall refer to the officially published IMDG Code for regulatory compliance and legal reference.

Cells and batteries offered for transport are not subject to other provisions of these Regulations if they meet the following:

(a) For a lithium metal or lithium alloy cell, the lithium content is not more than 1 g, and for a lithium ion or sodium ion cell, the watt-hour rating is not more than 20 Wh;

(b) For a lithium metal or lithium alloy battery the aggregate lithium content is not more than 2 g, and for a lithium ion or sodium ion battery, the watt-hour rating is not more than 100 Wh. Lithium ion and sodium ion batteries subject to this provision shall be marked with the watt-hour rating on the outside case, except lithium ion batteries manufactured before 1 January 2009;

(c) Each lithium cell or battery meets the provisions of 2.9.4 (a), (e), (f) if applicable and (g) or for sodium ion cells or batteries, the provisions of 2.9.5 (a), (e) and (f) shall apply;

(d) Cells and batteries, except when installed in equipment, shall be packed in inner packagings that completely enclose the cell or battery. Cells and batteries shall be protected so as to prevent short circuits. This includes protection against contact with electrically conductive material within the same packaging that could lead to a short circuit. The inner packagings shall be packed in strong outer packagings which conform to the provisions of 4.1.1.1, 4.1.1.2, and 4.1.1.5;

(e) Cells and batteries when installed in equipment shall be protected from damage and short circuit, and the equipment shall be equipped with an effective means of preventing accidental activation. This requirement does not apply to devices which are intentionally active in transport (radio frequency identification (RFID) transmitters, watches, sensors, etc.) and which are not capable of generating a dangerous evolution of heat. When batteries are installed in equipment, the equipment shall be packed in strong outer packagings constructed of suitable material of adequate strength and design in relation to the packaging's capacity and its intended use unless the battery is afforded equivalent protection by the equipment in which it is contained;

(f) Each package shall be marked with the appropriate lithium or sodium battery mark, as illustrated at 5.2.1.10.;

NOTE: Packages containing lithium batteries packed in conformity with the provisions of part 4, chapter 11, packing instructions 965 or 968, section IB of the ICAO Technical Instructions for the Safe Transport of Dangerous Goods by Air that bear the mark as shown in 5.2.1.9 (lithium battery mark) and the label shown in 5.2.2.2, Model No.9A shall be deemed to meet the provisions of this special provision.

This requirement does not apply to:

(I) packages containing only button cell batteries installed in equipment (including circuit boards); and

(II) packages containing no more than four cells or two batteries installed in equipment, where there are not more than two packages in the consignment.

When packages are placed in an overpack, the lithium or sodium battery mark shall either be clearly visible or be reproduced on the outside of the overpack and the overpack shall be marked with the word "OVERPACK". The lettering of the "OVERPACK" mark shall be at least 12 mm high.

(g) Except when cells or batteries are installed in equipment, each package shall be capable of withstanding a 1.2 m drop test in any orientation without damage to cells or batteries contained therein, without shifting of the contents so as to allow battery to battery (or cell to cell) contact and without release of contents; and

(h) Except when cells or batteries are installed in or packed with equipment, packages shall not exceed 30 kg gross mass.

As used above and elsewhere in these Regulations, "lithium content" means the mass of lithium in the anode of a lithium metal or lithium alloy cell. As used in this special provision "equipment" means apparatus for which the cells or batteries will provide electrical power for its operation.

Separate entries exist for lithium metal batteries and lithium ion batteries to facilitate the transport of these batteries for specific modes of transport and to enable the application of different emergency response actions.

A single cell battery as defined in part III, sub-section 38.3.2.3 of the Manual of Tests and Criteria is considered a "cell" and shall be transported according to the requirements for "cells" for the purpose of this special provision

About CINS

CINS is a shipping line initiative, launched in September 2011, to increase safety in the supply chain, reduce the number of cargo incidents on-board ships and on land, and highlight the risks caused by certain cargoes and/or packing failures. CINS develops and uses a continuous improvement model to enhance the safety of cargo carriage.

CINS permits analysis of operational information on all cargo and container incidents which lead to injury or loss of life, loss or serious damage of assets and environmental concerns. Data relating to any cargo incident on-board a ship, in terminals etc. is uploaded to the CINS database. The data includes information on cargo type, nature, packaging, weight, journey (load and discharge ports), type of incident and root cause.

Contact Information

CINS · Cargo Incident Notification System

Suite 3, Charter House

26 Claremont Road

Surbiton KT6 4QU

United Kingdom

E: secretary@cinsnet.com

W: www.cinsnet.com