



**REPUBLIC OF
THE MARSHALL ISLANDS**
MARITIME ADMINISTRATOR

Marine Guideline

No. 2-11-22

Oct/2023

TO: ALL SHIPOWNERS, OPERATORS, MASTERS AND OFFICERS OF MERCHANT SHIPS, AND RECOGNIZED ORGANIZATIONS

SUBJECT: Lithium-Ion Batteries: Fire Hazards and Emergency Preparedness

Reference:

- (a) **SOLAS**, *International Convention for the Safety of Life at Sea*, Consolidated Edition 2020
- (b) **ISM Code**, *International Safety Management Code*, 2018 Edition
- (c) **RMI [Maritime Regulations](#)** (MI-108)
- (d) **RMI Yacht Code** ([MI-103](#))
- (e) **RMI Marine Notice [2-011-13](#)**, *International Safety Management (ISM) Code*

PURPOSE

This Marine Guideline (MG) addresses the fire hazards associated with lithium-ion (li-ion) batteries in equipment, tools, and personal devices. It highlights the Republic of the Marshall Islands (RMI) requirement for conducting a risk assessment and for implementing procedures for their safe handling as part of a vessel's Safety Management System (SMS).

APPLICABILITY

This MG applies to RMI-flagged vessels carrying:

- A. li-ion battery-powered equipment such as:
 - 1. battery-powered equipment and tools;
 - 2. loose equipment, including water toys, surfboards, jet skis, tender boats, and submersibles;
 - 3. battery powered vehicles, including micromobility vehicles (e.g., e-bikes and electric-kick scooters); and
 - 4. personal devices, including laptops, telephones, and tablets.
- B. li-ion batteries as spares to the equipment above.

Excluded from this MG are:

- A. the transport of batteries contained in or packed in equipment and vehicles as assigned in the International Maritime Dangerous Goods Code (IMDG Code);
- B. batteries transported as cargo as assigned in the IMDG Code; and
- C. main and auxiliary machinery systems of the ship which are addressed under the rules of the vessel's Classification Society.¹

GUIDANCE

1.0 General

- 1.1 The Company is required, as applicable, under MN [2-011-13](#) or Annex 1 of the RMI Yacht Code ([MI-103](#)), to conduct a risk assessment on the safe handling of li-ion battery-powered equipment and personal devices carried onboard their vessels. This assessment should take into account the International Safety Management (ISM) Code Parts A-7, A-8 and A-10.
- 1.2 Taking the results of the risk assessment into consideration, the Company should then develop emergency procedures for dealing with potential fires caused by li-ion batteries, fire detection, suppression, extinguishing, and post-fire management should be addressed in the procedures.
- 1.3 If deemed necessary, and in consultation with the relevant Recognized Organization, fire-fighting equipment specifically for extinguishing li-ion battery-related fires may be installed to supplement the regular, approved fire detection and fire-fighting equipment.

2.0 Familiarization and Awareness

- 2.1 Appropriate information should be made available to all persons (crew, passengers, and guests) on board when li-ion batteries and equipment or devices containing them are on the vessel. This includes those brought on board in personal effects. Such information should include safety and technical information on:
 - .1 protection, including prevention of overcharging, safe handling, use, storage, and disposal;
 - .2 fault or failure detection and required actions; and
 - .3 suppressing and extinguishing fires, and post-fire management.

1. Per RMI Yacht Code ([MI-103](#)), Ch. II, §13.5.5, Ch II / 14.5 (CY > 500GT), and Ch. IV §8.5.5.

- 2.2 Crew members should be instructed on how to identify and extinguish li-ion battery fires.
- 2.3 Information on li-ion hazards may be displayed in crew, passenger, or guest spaces, as appropriate, to broaden general awareness.