



**REPUBLIC OF  
THE MARSHALL ISLANDS**

**MARITIME ADMINISTRATOR**

**Marine Notice**

**No. 2-011-57**

**Dec/2020**

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

**SUBJECT: Recreational Fire Appliances**

**Reference:** (a) **RMI Yacht Code ([MI-103](#))**  
(b) **[EC Directive/90/396/EEC](#)** of 29 June 1990, on the approximation of the laws of the Member States relating to appliances burning gaseous fuels

**PURPOSE:**

This Notice provides the requirements for the design, installation, and operation of Recreational Fire Appliances (RFAs) onboard Republic of the Marshall Islands (RMI)-flagged yachts. It does not, however, address every eventuality. Each RFA must be handled on a case-by-case basis.

**APPLICABILITY:**

Commercial yachts, passenger yachts (PAXYs), private yachts limited charter (PYLC), and Yachts Engaged in Trade (YETs), regardless of size, and of which the keel is laid on or after 1 January 2021.

Yachts with a keel laid before 1 January 2021 must comply with this Marine Notice to the extent practicable.

**DEFINITIONS:**

**Recreational Fire Appliances (RFAs)** mean fireplaces which use wood, ethanol or liquified petroleum gas (LPG) as a primary fuel source or for ignition purposes. They include charcoal galley ovens, LPG or charcoal fire barbeques, spit roasts, and fire pits.

**REQUIREMENTS:**

**1.0 General**

1.1 Sea state conditions likely to be experienced must be considered when storing and fastening RFAs and their associated equipment. This includes, but is not limited to doors, hatches,

gas bottles, shutters and any other items that may be subject to damage due to mechanical impact from adjacent objects.

- 1.2 RFAs must be installed according to the manufacturer's instructions.
- 1.3 RFAs must not be placed close to combustible materials. The distance between them must, at a minimum, be as established by the manufacturer where specified.
- 1.4 Exhaust ducts must be sufficiently insulated to avoid heat transmission and not be placed in the proximity of combustible material, including in ceilings. They must be installed as required by the manufacturer. If manufacturer instructions are unavailable, the distance between the exhaust ducts and combustible material must be at least 230 millimeters (mm).
- 1.5 RFA side and rear clearances to combustible material must be in accordance with the manufacturer instructions. If no instructions are available, this distance must be at least 460 mm.
- 1.6 Fully or partly enclosed internal spaces containing an RFA must be provided with a carbon monoxide (CO) alarm connected to the yacht's main and emergency power supplies.
- 1.7 Ventilation systems of internal spaces where an RFA is installed must be arranged so that the CO levels exposure is never more than nine parts per million (ppm) over eight hours (average).
- 1.8 The quantity of bioethanol and any other petrol stored onboard must not exceed the combined amount of 150 liters (L). Larger amounts must be specially considered on a case-by-case basis by the RMI Maritime Administrator.
- 1.9 A suitable, readily available, portable fire extinguisher must be stored near the RFA when it is use.

### **Guidance**

Where practicable, a fixed fire extinguishing system should be installed.
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## **2.0 Operational**

- 2.1 When an RFA is installed or used onboard, a risk assessment must be conducted for each appliance type. This risk assessment must form part of the yacht's Safety Management System (SMS).
- 2.2 Crew assigned to duties in maintaining and operating the RFAs must be trained in the use of the equipment and in measures to take in case of an emergency.
- 2.3 As part of the yacht's SMS, an operational procedure must be available outlining the requirements of the type specific RFA onboard. The procedures must:

- 2.3.1 address the regular cleaning and inspection of all equipment and associated areas; and
- 2.3.2 provide the Master with the authority and responsibility to decide, taking all conditions into account, whether and when the RFA may be used.

These procedures must be readily available for all persons, including external caterers and their staff, involved in the RFA's operations or maintenance.

### **3.0 Ventilation**

- 3.1 Where the RFA arrangement consists of a vent that can be closed, warning signs must be placed in a visible location to indicate that the vent must be opened before the equipment is used.
- 3.2 Ventilation ducts used for the RFA must be constructed of steel with a wall thickness of at least three mm and be of a type recommended by the manufacturer.
- 3.3 RFA exhaust ducts must ventilate directly to the atmosphere and be independent from any other ventilation system. Spark arrestors must be provided at the outlet of the ducts.
- 3.4 Exhaust ducts must be kept clear from any air intakes and ventilation systems serving spaces and tanks containing flammable liquids. These ducts must be located outside any dangerous zones with a distance of at least three meters (m).
- 3.5 Duct dimensions and capacity of the exhaust air must be in accordance with the manufacturer's specifications. Connections of these ducts must be kept to a minimum, gas tight and suitably located to enable inspections and maintenance.
- 3.6 Exhaust ducts and filters must be provided with easily accessible openings for cleaning and inspection.
- 3.7 Exhaust duct penetrations of a fire-rated division must be of the same fire integrity rating as the bulkhead or deck penetrated.
- 3.8 If installed, ventilation extraction systems for RFAs must be provided with an audible and visible alarm to indicate any system failure.
- 3.9 Exhaust ducts must be provided with a manually operated fire damper at the lower end of the duct. When in open position, the free area must be such that the damper does not obstruct more than 20% of the duct area and be fitted with suitable means for extinguishing and containing the fire within the duct.

#### **Guidance**

Where practicable, exhaust ducts should be provided with access at suitable locations for cleaning, inspection and access for a fire extinguishing with a suitable portable fire extinguisher.
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## 4.0 Solid-Fueled Fireplaces

- 4.1 Solid-fueled fireplaces must be contained by a steel enclosure provided with heat resistant glass or other non-combustible material front to prevent any burning particles from escaping from the combustion chamber.

### Guidance

In case of a temperature raise that exceeds the manufacturer's recommendations, the vent should have the capability to stop automatically and the combustion chamber door should have an interlock arrangement to prevent feeding of the combustion chamber.

- 4.2 The hearth of the non-combustible material (meaning, stone or tiles) must be as per the manufacturer's specifications.

### Guidance

For fireplaces with an opening of less than 0.56 square meters (m<sup>2</sup>), the hearth should extend not less than 405 mm beyond the front of the fireplace and at least 200 mm beyond each side of the fireplace opening.

For fireplaces with an opening greater than 0.56 m<sup>2</sup>, the hearth should extend not less than 510 mm beyond the front of the fireplace and at least 300 mm beyond each side of the fireplace opening.

Regardless of the opening size, the hearth should always extend under the base of the fireplace.

- 4.3 Solid fuel materials must be stored in a suitable enclosed locker or space which is provided with an addressable fire detection system and a fixed fire extinguishing system. No electrical equipment other than lighting shall be located in the store.

### Guidance

Ashes should be removed from the appliance only after they have been extinguished and cooled down with no warm embers remaining. The ashes should be collected into a metal container with a tight-fitting metal lid.

## 5.0 Ethanol-Fueled Fireplaces

- 5.1 All ethanol or bioethanol fireplaces must be certified to a recognized standard such as the EU 2015/547, *Alcohol powered flueless fireplaces pursuant to Directive 2001/95/EC of the European Parliament and of the Council on general product safety*.

- 5.2 Ethanol-fueled fireplaces must be contained in steel enclosures provided with heat resistant glass or other non-combustible material front.

### **Guidance**

Unless required by the manufacturer’s specifications, ethanol, or bioethanol RFAs do not always require a chimney or exhaust duct.
The RFA should have rapid means of manually shutting down the system.

- 5.3 The RFA must be locally protected by a suitable fixed fire extinguishing system, which may be manually controlled by the crew in case of emergency. The firefighting medium release must be located outside the space.
- 5.4 Storage of ethanol or bioethanol must meet the MI-103 requirements for “*Stowage of Gasoline, Aviation Fuel, and Other Highly Flammable Liquids.*”
- 5.5 Storage containers must be safely secured against movement and protected from damage.

### **6.0 LPG installations**

- 6.1 An open flame gas appliance provided for cooking, heating, or any other purpose must comply with the requirements of *EC Directive 90/396/EEC*, or equivalent.
- 6.2 Repairs, service, or any other maintenance carried out must be in accordance with the manufacturer’s instructions or by an authorized service provider.
- 6.3 Cylinders containing LPG and their associated fittings must be secured against movement and protected from damage.
- 6.4 LPG cylinders must be stowed on an open deck or in a compartment that is vapor tight to the yacht’s interior.
- 6.5 If stowed on an open deck, LPG cylinders must not be in a space exposed to the environment. Weather conditions, sea state, wind force, direct sunlight, etc., must be considered.
- 6.6 If stowed in a locker, ventilation and drainage must be provided. The drain and locker vent must be at least 500 mm away from any opening to the interior.
- 6.7 Lockers for the storage of LPG cylinders where electrical equipment, including electric detection equipment is fitted, it must be certified as being flame-proof or intrinsically safe and certified for the gas being used.
- 6.8 The arrangements for storing, distributing, and using LPG must safeguard the yacht and the persons on board, considering the hazards of fire and explosion.

- 6.9 Each system containing LPG for RFA use must be fitted with readily accessible isolating valves in the supply pressure part of the system. For fixed RFA systems, these valves must be located at least three meters from the LPG cylinders and be clearly marked for their purpose.
- 6.10 Where a multiple cylinder installation is used, a non-return valve must be fitted in the supply line near to the stop valve of each cylinder. If a manual or automatic change-over device is used, there must be non-return valves to isolate each depleted cylinder. A means must also be provided to prevent using the system when one cylinder is removed, unless the distribution line is fitted with a suitable gas tight plug arrangement.

### **Guidance**

Valves of cylinders not in use should be protected by the appropriate cap and disconnected from the system.
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- 6.11 The installation and fitting of pipework associated to the RFA and LPG system must satisfy the RO and the manufacturer's instructions. Maintaining and serving these cylinders and the associated equipment must be carried out by authorized service providers.
- 6.12 Burners and pilot flames must have a fail-safe device to stop any gas supply in the event the flame fails.
- 6.13 A suitable gas detector must be provided in the lower part of the compartment in the vicinity of the gas-consuming appliance and in other spaces into which gas may flow. This detector must be maintained and tested in accordance with the manufacturer's requirements.
- 6.14 Gas detectors must be powered from the yacht's main supply and also the emergency power source. The alarms must provide an audible and visual warning in the crew mess and in the wheelhouse.

## **7.0 External Fire Pits**

- 7.1 The fire pits must be located on an open deck in a well-ventilated position, clear of any hazard, such as overhanging combustible awnings, flammable liquids, mooring lines, etc. Appliances must not be placed internally.
- 7.2 The fire pits must be limited to the use on open decks in a safe location, clear from combustible materials, and in favorable weather conditions.
- 7.3 Deck scuppers near the fire pits must lead directly overboard.
- 7.4 A suitable portable fire extinguisher and fire blanket must be available at all times.
- 7.5 Spark guards or covers must be installed or readily available.

- 7.6 The fire pit must not be left unattended when in use. It must be fully extinguished after use.
- 7.7 Fuel materials must be stored in a suitable enclosed locker or space which is provided with an addressable fire detection system and a fixed fire extinguishing system.
- 7.8 Ashes must be removed from the appliance only after they have been extinguished so that no warm embers remain. The ashes must be collected into a metal container with a tight-fitting metal lid.
- 7.9 For the purpose of MARPOL Annex V, ashes must be treated as Category C waste and be discharged to an adequate shore facility.

## **8.0 Barbecues and Spit Roasts for Use on Open Decks**

- 8.1 Barbecues and spit roasts must be located on an open deck in a well-ventilated position, clear of any hazard, such as overhanging combustible awnings, flammable liquids, mooring lines, etc. Appliances must not be placed
- 8.2 A suitable portable fire extinguisher and fire blanket must be available at all times.
- 8.3 Spark guards or covers must be installed or readily available.
- 8.4 The appliance must be suitably screened and provided with a fixed collecting tray, secured to the deck, or directly below the appliance, to prevent fat, hot ash, etc. falling onto the deck.
- 8.5 Charcoal ashes must be removed from the appliance only after they have been extinguished so that no warm embers remain. The ashes must be collected into a metal container with a tight-fitting metal lid.
- 8.6 For the purpose of MARPOL Annex V, ashes must be treated as Category C waste and be discharged to an adequate shore facility.
- 8.7 Fuel materials must be stored in a suitable enclosed locker or space which is provided with an addressable fire detection system and a fixed fire extinguishing system.

## **9.0 Charcoal Galley Ovens**

- 9.1 Non-combustible insulation must be installed between the oven base and the unit it is installed on to avoid direct or indirect heat transmission.
- 9.2 Air supply ventilation arrangements must be capable of being remotely shut off from the appliance. They must be installed in accordance with the manufacturer's instructions.
- 9.3 A fire break and cowl must be fitted in accordance with the manufacturer's instructions.

- 9.4 Charcoal ashes must be removed from the appliance only after they have been extinguished so that no warm embers remain. The ashes must be collected into a metal container with a tight-fitting metal lid.
- 9.5 For the purpose of MARPOL Annex V, ashes must be treated as Category C waste and be discharged to an adequate shore facility.
- 9.6 Fuel materials must be stored in a suitable enclosed locker or space which has an addressable fire detection system and a fixed fire extinguishing system.