



**REPUBLIC OF MAURITIUS**

Ministry of Ocean Economy, Marine Resources, Fisheries and Shipping  
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Edith Cavell Street  
Port-Louis

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**MERCHANT SHIPPING NOTICE Ref: 2 of 2019**

**Title: Implementation of IMO 2020 0.50% Global Sulphur Cap**

Notice to: **Ship Owners / Masters/Managers / Ship Operators/Port Master and Bunker Suppliers**

**The objective of this Merchant Shipping Notice is to provide guidance to the Mauritian shipowners/operators so that their ships are prepared to demonstrate compliance with the provisions of Regulation 14.1.3 of MARPOL, Annex VI.**

**1. PURPOSE**

- 1.1 The purpose of this Merchant Shipping Notice is to advise all stakeholders of the global implementation of the International Convention for the Prevention of Pollution from Ships (MARPOL) Annex VI limit of 0.50 mass per cent concentration (0.50% m/m) sulphur content in fuel oil, for all ships effective as from 1 January 2020.
- 1.2 This Notice also informs the maritime community that Mauritius will be ratifying MARPOL Annex VI — Prevention of Air Pollution from Ships.

**2. APPLICATION**

- 2.1 These requirements shall apply to all Mauritius ships wherever they are.
- 2.2 All non-Mauritius ships coming to Port Louis shall upon entering the territorial sea of Mauritius use fuel oil with a sulphur content of no more than 0.50% m/m. This includes vessels engaged in offshore bunkering operations.
- 2.3 In addition, all local fuel oil suppliers will be required to be registered with this Ministry. Appropriate instructions on how to proceed will be issued in due course.

### 3. GENERAL

- 3.1 MARPOL Annex VI addresses air pollution from ships' engines by, among others, establishing limits on nitrogen oxides (NO<sub>x</sub>), sulphur oxides (SO<sub>x</sub>) and particulate matter, which are harmful to human health and the environment.
- 3.2 SO<sub>x</sub> and particulate matter emissions are a function of the sulphur content of fuel oil. The SO<sub>x</sub> control requirements in MARPOL Annex VI provide for a progressive global reduction in the sulphur content of fuel oil to reduce the emission of SO<sub>x</sub> and particulate matter from ships.
- 3.3 The current maximum sulphur content of fuel oil for ships operating in areas other than Emissions Control Areas (ECAs) is 3.5% m/m (mass/mass). This limit will be reduced to 0.50% m/m as from 1 January 2020.
- 3.4 Regulation 14.1 of MARPOL Annex VI states that: "The sulphur content of fuel oil used or carried for use on board a ship shall not exceed 0.50% m/m,"
- 3.5 This reduction follows an International Maritime Organization (IMO) commissioned study to review the global and regional demand for, and supply of, fuel oil complying with the 0.50% m/m limit.
- 3.6 The maximum sulphur content of fuel oil for ships operating in ECAs is 0.10% m/m. Four SO<sub>x</sub> (and NO<sub>x</sub>) ECAs have been designated by the IMO. These are the Baltic Sea area, North Sea area, the North American area (both east and west coasts of the United States and Canada) and the United States Caribbean Sea area.
- 3.7 It is expected that the implementation of the above limits will significantly reduce the amount of SO<sub>x</sub> emissions from ships and thereby lead to improved air quality and health benefits especially for people living in port towns and cities as well as coastal communities.

- 3.8 Therefore, as from 1 January 2020, all ships as mentioned in this Notice will be required to use fuel oil with a sulphur content of no more than 0.50% m/m. Alternatively, fuels such as methanol or gas may be used, or an IMO approved method, such as an exhaust gas cleaning system — also known as scrubbers may also be used with a resulting emission limit of 0.50% m/m.
- 3.9 However, (except in the case of innocent passage), ships proceeding to Mauritius or other islands forming part of the territory of Mauritius that use high sulphur fuel oil (HSFO) in combination with open-loop scrubber shall changeover from HSFO to compliant fuel oil whenever they enter the territorial waters of Mauritius i.e. within 12 nautical miles from the shore. Environmental legislation presently in force in Mauritius prohibits the discharge of wash water from open-loop scrubber.
- 3.10 When considering the use of scrubbers, the relevant IMO Guidelines should be consulted especially the 2015 Guidelines for Exhaust Gas Cleaning Systems (resolution MEPC.259 (68)).
- 3.11 The maritime community is requested to familiarise itself with other requirements of MARPOL Annex VI, especially the NO<sub>x</sub> requirements for marine diesel engines.

#### **4. CARRIAGE BAN**

- 4.1 Besides the 0.50% m/m sulphur limit of fuel oils used on board ships, **Regulation 14.1** impose a carriage ban on non-compliant fuel (i.e. fuel with sulphur content of more than 0.50% m/m) as from 1 March 2020.
- 4.2 The carriage ban is intended to facilitate the enforcement of the sulphur limit by preventing ships from burning non-compliant fuel while at sea. This ban will **not** apply to:
- a) ships that use abatement technology such as scrubbers as equivalent means of compliance;
  - b) ships conducting tests for abatement technology; and
  - c) ships reporting non-availability of fuel.

4.3 However, ships will still be permitted to carry non-compliant fuel as cargo.

## 5. FUEL AVAILABILITY

5.1 It is expected that compliant fuel will be available to ships in Mauritius before 1 January 2020.

5.2 However, the possibility exists for a ship not to be able to procure compliant fuel despite best efforts. In this case, the ship which has procured non-compliant fuel due to the unavailability of compliant fuel, the Master of the vessel would need to complete and submit a Fuel Oil Non-Availability Report (FONAR) to the ship's flag Administration (for Mauritius flagged ships, the Director of Shipping) and the maritime and port authorities at her next port of call.

***In the case of Mauritius, the Director of Shipping and the Port Master shall be informed accordingly.***

5.3 The intent of FONAR is to report non-availability of compliant fuel in the last port of call, it should not be misconstrued as an exemption from compliance with the new sulphur requirements,

5.4 The FONAR is structured to serve both purposes: SO<sub>x</sub> Emission Control Areas (SECA) compliant fuel oil non-availability and 0.50%<sub>m/m</sub> fuel oil non-availability elsewhere.

5.6 The FONAR form is herewith attached as **ANNEX A.**

The completed FONAR shall be sent as soon as it is determined that the ship will be unable to procure compliant fuel and preferably before the ship leaves the port/terminal where compliant fuel cannot be obtained. A copy of the FONAR should be kept on board for inspection for at least 12 months.

5.8 Ships calling at Mauritius ports and submitting a FONAR would need to declare so in the Pre-Arrival Notification (PAN) and their local agents to be informed accordingly. Such ships would be required to bunker compliant fuel in Mauritius.

## **6. SHIP IMPLEMENTATION PLAN**

- 6.1 Owners and operators of Mauritian ships are encouraged to develop a Ship Implementation Plan (SIP), outlining how the ship is preparing to comply with the required sulphur content limit of 0.50% by 1 January 2020. The plan could be complemented with a record of actions taken by the ship in order to be compliant by the applicable date.
- 6.2 The SIP is not mandatory but will need to be developed in accordance with the Guidance on the Development of a Ship Implementation Plan for the Consistent Implementation of the 0.50% Sulphur Limit under MARPOL Annex VI as per MEPC.1/Circ.878 of 9 November 2018. This MEPC Circular consists of a guidance on developing the non-mandatory SIP, which also includes a sample format for the implementation plan, potential impacts of low sulphur fuel oil on machinery systems and guidance for fuel oil tank cleaning.
- 6.3 It should be emphasised that the SIP is not mandatory. However, the SIP can be utilised by ship operators to help them plan and demonstrate the actions taken by their ships to prepare for compliance with the 0.50% m/m sulphur limit as from 1 January 2020.

Preparatory measures such as modifications to fuel oil systems, fuel oil capacity and segregation capability, tank cleaning and bunkering plans, complemented with the record of implementation in the lead-up to the compliance date would serve to facilitate the documentation check by inspectors.

## **7. COMPLIANCE CONTROL AND ENFORCEMENT**

- 7.1 As from 1 January 2020, ships calling at Mauritian ports may be subject to inspections to verify compliance with the new sulphur requirements, including the carriage ban, during Port State Control (PSC) and Flag State Control (FSC) inspections. The latter are applicable to Mauritian vessels.
- 7.2 Ships will be selected for PSC/FSC inspections based on a risk assessment, which takes into account whether a FONAR has been submitted.

7.3 In cases where the Director of Shipping determines that a ship does not comply with these requirements the vessel may be subject to detailed inspections and further actions as appropriate.

## **8. FURTHER INFORMATION**

8.1 The maritime community should note that this Merchant Shipping Notice provides only a summary of MARPOL Annex VI requirements relating mainly to SO<sub>x</sub>.

8.2 For further information on the general requirements of MARPOL regarding Preventing of Air Pollution from ships reference should be made to the MARPOL Annex VI; while details on determining the NO<sub>x</sub> requirements for a specific ship is laid down in the NO<sub>x</sub> Technical Code 2008, as amended.

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## ANNEX A

### Ministry of Ocean Economy, Marine Resources, Fisheries and Shipping

## REPORT ON COMPLIANT FUEL OIL

## NON-AVAILABILITY

### IMO Compliant Fuel Oil Non-Availability Report (FONAR)

*This form shall be used for reporting non-availability of 0.50% m/m or 0.10% m/m sulphur fuels where applicable*

*This report is to be used to provide documentation if a ship is unable to obtain fuel oil compliant with the provisions stipulated in MARPOL Annex VI, Regulation 14.1.3 and 14.4.3 and the fuel quality in Regulation 18.3.*

*The ship shall present a record of the actions taken to attempt to achieve compliance; and provide evidence that it attempted to purchase compliant fuel oil in accordance with its voyage plan and, if it was not made available where planned, that attempts were made to locate alternative sources for such fuel oil and that despite best efforts to obtain compliant fuel oil, no such fuel oil was made available for purchase.*

*As per regulation 18.2.2 of MARPOL Annex VI, the ship should not be required to deviate from its intended voyage or delay unduly the voyage in order to achieve compliance.*

***The ship shall notify its Administration and the competent authority of the relevant port of destination when it cannot purchase compliant fuel.***

*A copy of the report and all supporting documents shall be kept on board for inspection for at least 12 months.*

*If a ship provides the information set forth in paragraph 2.1 of Regulation 18 of MARPOL Annex VI (this form provides a standard format to facilitate reporting of this information), a Party shall take into account all relevant circumstances and the evidence presented to determine the appropriate action to take, including not taking control measures.*

**Name of Ship:**

**Flag:**

**IMO Number:**

**Port of registry:**

**Gross tonnage:**

**(If other relevant registration number is available, enter here):**

**Provide a description of the vessel's voyage plan in place at the time of entry into the port where compliant fuel oil was not available (attach copy of plan if available):**

**Last port of Departure:**

**Date of departure from last port:**

<b>First port of call:</b>	<b>Date of arrival at first port of call:</b>
<b>Date ship expect to departure from the port:</b>	<b>The sulphur content of the fuel in use (BDN):</b>
<i>If ship is to enter an Emissions Control Area (ECA) provide information as requested in items E1 through E6</i>	
<b>E1. Date vessel first received notice that it would be transiting in the ECA:</b>	
<b>E2. Vessel's location at the time of notice:</b>	
<b>E3. Date/time vessel operator expects to enter ECA:</b>	<b>E4. Date/time vessel operator expects to exit ECA:</b>
<b>E5. Projected days vessel's main propulsion engines will be in operation within ECA:</b>	
<b>E6. Sulphur content of fuel oil in use when entering and operating in the ECA (BDN):</b>	
<p><b>Provide a description of actions taken to attempt to achieve compliance and a description of all attempts that were made to locate alternative sources of compliant fuel oil, and a description of the reason why compliant fuel oil was not available:</b></p>	

Name of suppliers contacted:	Address:	Date of contact:
1)		
2)		
3)		
4)		

**In case of fuel oil supply disruption only**

**Name of port at where vessel was scheduled to receive compliant fuel oil:**

**Name of the fuel oil supplier that was scheduled to deliver (and now reporting non-availability):**

**Operational constraints, if applicable**

**Describe any operation constraints that prevented using available compliant fuel oil (e.g. with respect to fuel system arrangements, flash point, viscosity, compatibility, or other fuel oil parameters):**

**Specify steps you have taken, or are taking, to resolve these operational constraints that will allow you to use all commercially available residual fuel oil blends:**

**Describe availability of compliant fuel oil at the first port-of-call and plans to obtain compliant fuel oil:**

**If compliant fuel oil is not available at the first port-of-call, list the lowest sulphur content of available fuel oil(s) or the lowest sulphur content of available fuel oil at the next port-of-call:**

**If the available compliant fuel oil quality fails to meet the requirements of Regulation 18.3 specify the reason along with the method used for detection and testing:**

If this vessel or owner/operator has submitted a Fuel Oil Non-Availability Report to this Administration in the previous 12 months, list the number of Fuel Oil Non-Availability Reports previously submitted and provide details on the dates and ports visited while using non-compliant fuel oil as set out below.

Report	Date	Port	Type of Fuel	Comments
1)				
2)				
3)				
4)				
Name of master:			Vessel operator name:	
Local agent(s) in port of call and telephone number:			Name of company <i>(as named on ISM document)</i>	
Name of Designated Person Ashore (DPA) and telephone number:				
Address (Street, city, country, postal/zip code):			Tel. number:	
Signature of master:		Print name:		Date:

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