

CIRCULAR No. 79***PORTUGUESE MARITIME ADMINISTRATION***

SUBJECT | Shaft/Engine power limitation system and use of power reserve

To | Shipowners, Companies, Operators, Recognized Organizations and Masters of Portuguese flagged vessels

DISCLAIMER | This document is for information only and is not intended to interpret or replace the legal referenced documents published by official sources

REFERENCES | GUIDELINES ON THE SHAFT / ENGINE POWER LIMITATION SYSTEM TO COMPLY WITH THE EEXI REQUIREMENTS AND USE OF A POWER RESERVE.
MEPC.335(76) and amendments MEPC.375(80)

1. OBJECTIVE

The aim of this circular is to inform Shipowners, Companies, Operators, Recognized Organizations and Masters of the position of the Portuguese Maritime Administration concerning ShaPoLi/EPL systems installation, usage of power reserve, reactivation process and reporting procedure on board Portuguese flagged vessels.

2. IMO STRATEGY ON REDUCTION OF GHG EMISSIONS FROM SHIPS

In 2028, IMO adopted an Initial Strategy on the reduction of GHG emission from ships, aiming to reduce the total annual GHG emissions by at least 50% by 2050 compared to 2008.

On 22 October 2028, with the aim to reduce GHG emissions, and as matter of urgency, a follow up programme was approved.

On July 2023 (MEPC 80) IMO adopted a revised strategy on reduction of GHG emissions with the goal of reaching a net-zero GHG emission by or around 2050.

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Indicative checkpoints to reach net-zero GHG emissions from international shipping:

- .1 to reduce the total annual GHG emissions from international shipping by at least 20%, striving for 30%, by 2030, compared to 2008; and
- .2 to reduce the total annual GHG emissions from international shipping by at least 70%, striving for 80%, by 2040, compared to 2008.

In order to comply with provisions from revised MARPOL Annex VI which entered in force on 1 November 2022, namely Regulation 25 (required EEXI), a Shaft / Engine Power Limitation system may be installed on ships.

3. SHAFT / ENGINE POWER LIMITATION SYSTEM

The ShaPoLi system should include a data recording and processing device for tracking and calculation of shaft rotational speed, shaft torque and shaft power to be recorded constantly in unlimiting mode.

The EPL system for the electronically controlled engine should include a fuel index sealing system or power limitation system which can indicate and record the use of unlimited mode.

The use of unlimited shaft/engine power (power reserve) is allowed only for the purpose of securing the safety of a ship or saving life at sea. The reasons to use power reserve (override the system) are valid for:

1. Operating in adverse weather
2. Operating in ice-infested waters
3. Participation in search and rescue operations
4. Avoidance of pirates
5. Engine maintenance
6. Other reasons consistent with Regulation 3.1 of MARPOL Annex VI

The ShaPoli/EPL system may be overridden during the manoeuvring only if the safety of the ship or saving life at sea are at stake. If there is no risk for the safety or saving life at sea, then power reserve shall not be used during pilotage.



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The use of power reserve is allowed for the purpose of engine maintenance. The maintenance schedule of an engine shall follow the maintenance plan of the engine and guidelines provided by manufacturer/supplier. Proper information shall be included in the OMM. The use of power reserve shall be utilised as stated in the OMM.

4. SHORT-TERM EXCEEDANCES AND DELAY TO COMMENCE RECORDING THE DATA

The Onboard management Manual (OMM) which is required to be permanently on board shall specify the time required for un-limiting the ShaPoli/EPL system. However, the time elapsed between the pre-notice of when power limit is exceeded, and the start of data recording may be mentioned in OMM but is not specified in Resolution MEPC.335(76).

The ShaPoli system is to be provided with audio or visual alarms, or both. In any case, despite of audio and visual alarm on the particular ShaPoli system installed on board, the delay between the moment when MCRI_{lim} is continuously exceeded and the commence of data logging, shall not exceed 300 seconds.

Exceedance of engine power limit which occurred, intentional or not, for isolated short transition periods within 300 seconds, shall not constitute a use of power reserve which is to be recorded and reported to the Administration.

5. USE OF POWER RESERVE AND REACTIVATION OF SYSTEM

Any use of a power reserve should be recorded in the record page of the OMM for ShaPoli/EPL, signed by the master and should be kept on board. The ship shall notify the Administration without any delay, filing the attached form and submit it to the following addresses:

marad@dgrm.pt

technical.mar@madeira.gov.pt



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The record to be maintained when using the power reserve should include the following:

1. Ship type;
2. IMO number;
3. ship size in DWT and/or, as applicable;
4. ship's limited shaft/engine power and ship's maximum unlimited shaft/engine power;
5. position of the ship and timestamp when the power reserve was used;
6. reasons for using the power reserve (operating in adverse weather, operating in ice infested waters, participation in search and rescue operations, avoidance of pirates, engine maintenance, description of other reasons consistent with Regulation 3.1 of MARPOL Annex VI);
7. Beaufort number and wave height or ice condition in case of using the power reserve under adverse weather condition;
8. Supporting evidence (e.g. expected water condition) in case of using the power reserve for avoidance action);
9. Records from the ShaPoli/EPL system for the electronically controlled engine during the power reserve was used; and
10. Position of the ship and timestamp when the power limit was reactivated or replaced.

Where an EPL/ShaPoli override is activated but the power reserve is not used, this event should be recorded in the bridge and engine-room logbooks. The engine-room logbook should record power used during the period when the override was activated. The EPL/ShaPoli should be reset as soon as possible, and details of the reset should also be recorded in the bridge and engine-room logbooks.

In any case, RO should confirm the reactivation or replacement of the ShaPoli/EPL. This verification may be conducted by remote means based on supporting evidence (e.g. engine power log, photo taken at the occasion of resetting the mechanical sealing). However, at the next attendance on board the RO should confirm the reactivation or replacement (e.g. validation of mechanical sealing) as well as the corresponding entries in the OMM.



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Acronyms:

- EEXI - Energy Efficiency existing ship Index
- ShaPoli - Shaft Power Limitation
- EPL - Engine Power Limitation
- GHG emissions - Greenhouse Gas emissions
- OMM - Onboard Management Manual
- MCRLim - Maximum Continuous Rating limit
- RO - Recognized Organization with agreement signed with DGRM

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The General Director of Natural Resources, Safety and Maritime Services

More information

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