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16670 CG-ENG Policy Letter 01-24 April 10, 2024

From: D. H. Cost, CAPT

COMDT (CG-ENG)

To: Distribution

Subj: GUIDANCE REGARDING DEVICES THAT ALTER MANEUVERING CHARACTERISTICS OF SHIPS TO ENSURE SAFE OPERATION IN WATERS

OF THE UNITED STATES

Ref: (a) IMO Resolution MEPC.335(76), 2021 Guidelines on the Shaft / Engine Power Limitation System to Comply with the EEXI Requirements and Use of a Power Reserve

- (b) IMO Resolution MEPC.375(80), 2023: Amendments to the 2021 Guidelines on the Shaft / Engine Power Limitation System to Comply with the EEXI Requirements and Use of a Power Reserve
- (c) IMO Circular MEPC.1/Circ.850/Rev.3, Guidelines for Determining Minimum Propulsion Power to Maintain the Manoeuvrability of Ships in Adverse Conditions
- (d) IMO Resolution A.601(15), Recommendation on the Provision and the Display of Manoeuvring Information on Board Ships
- 1. <u>PURPOSE</u>. This policy letter provides guidance to Captains of the Port (COTPs), Officers in Charge of Marine Inspection (OCMIs), and maritime stakeholders regarding devices that alter the maneuvering characteristics of ships operating in U.S. territorial waters, including considerations to ensure safe navigation and the guidance necessary to comply with 33 CFR § 164.11 (k).
- 2. DIRECTIVES AFFECTED. None.
- 3. <u>ACTION.</u> U.S. Coast Guard units and maritime stakeholders including ship agents, owners, and operators should be aware of how these devices impact ship maneuverability and take action, as necessary, to ensure safe operations in U.S. waters.

4. BACKGROUND.

a. As of November 1, 2022, existing ships and those which have undergone a major conversion must comply with the Energy Efficiency Existing Ship Index (EEXI) regulations found in MARPOL Annex VI. One option to achieve compliance is to reduce maximum ship speed or power either by permanently de-rating the engine or through installation of an overridable Engine Power Limiter (EPL) or Shaft Power Limiter (SHaPoLi), guidance for which can be found in references (a) and (b). Additionally,

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operators may choose to install systems to improve the ship's environmental profile by limiting the acceleration rate of the main propulsion engines. This policy letter covers the listed types of devices as well as other similar devices that potentially alter ship maneuverability.

- b. There are two general categories of EPL/SHaPoLi systems:
 - (1) *Electronic*: This system type uses the ship's electronic engine control system to limit maximum speed or power output to a pre-determined level. This system can be overridden in various ways within the control software. Override typically requires verification by a bridge officer or the master.
 - (2) *Mechanical*: This system type is a physical component on the engine that limits fuel flow to the engine if the power demanded exceeds a certain set point. It can be overridden, but generally requires more time than an electronic system.
- c. SOLAS Chapter V Regulation 34 requires safety-focused voyage planning including consideration of ship maneuverability characteristics, navigation hazards, and environmental conditions along a ship's route. The following is a non-exhaustive list of additional considerations for safe voyage planning especially when an EPL/SHaPoli or acceleration-limiting program is installed on a ship:
 - (1) Number, severity, and frequency of course and speed changes necessary to safely navigate in a river or restricted waterway;
 - (2) Duration of transit in restricted waters;
 - (3) Density of commercial and recreational marine traffic;
 - (4) Tug availability in the port/waterway with consideration for ship needs, required tug size, and power rating.
- d. The minimum required power specified in reference (c) applies only to ships in unrestricted navigation. This policy letter provides guidance for ship power configurations while in restricted waters of the U.S. Persons responsible for ship navigation should use this guidance and the authority and procedures specified in the Onboard Management Manual (OMM) and/or the Safety Management System (SMS) to override the EPL/SHaPoLi when it is determined that this action is required for safe operation. Overriding the EPL/SHaPoLi to safely navigate in restricted waters does not constitute a MARPOL Annex VI violation as these regulations do not apply to emissions necessary for securing the safety of a ship. Specific reporting requirements for overriding an EPL/SHaPoLi and use of reserve power are detailed in references (a) and (b).
- e. Ships that employ an EPL/SHaPoLi or engine acceleration-limiting program as a part of their EEXI compliance structure must inform pilots of the engine response characteristics prior to entry into U.S. territorial waters to comply with 33 CFR § 164.11(k). The accurate representation of maneuvering characteristics and limitations of ships on pilot

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cards and wheelhouse posters is vital to safe navigation in restricted waters. Specific guidance for the pilot card and wheelhouse poster can be found in reference (d).

- 5. <u>GUIDANCE</u>. This guidance is intended to provide a framework for decision-making regarding the use of devices that have the potential to negatively impact ship maneuverability and in no way precludes operators from following rules of good seamanship to ensure the safety of their ship and the waterway. If an evaluation of the ship's maneuvering characteristics leads to concern for safe navigation, appropriate additional safety measures may be required to ensure the ship can safely transit through the restricted waterway. However, if an EPL or SHaPoLi is used, overriding the system may be a viable option to mitigate risks. When considering the various types of devices, the following guidance is provided:
 - a. Ships with a permanent power modification must update pilot cards and wheelhouse posters to reflect maneuverability with the device installed.
 - b. 33 CFR § 164.11 (k) requires pilots to be informed of all ship maneuvering characteristics. If the ship's maneuvering characteristics indicated on the pilot card and wheelhouse poster were not updated following installation of an EPL/SHaPoLi system or acceleration-limiting program, the ship is not in compliance with this regulation. As such, the system or program must be overridden prior to entry into U.S. territorial waters. If override is not feasible, the COTP, in consultation with the pilots, may require additional measures to ensure the safety of the ship and the port during the ship's restricted water transit. Operators of ships who have not updated these documents are advised to engage with local pilots and the COTP well in advance of entry into port to avoid delays by ensuring all required safety measures are in place.
 - c. If the pilot card and wheelhouse poster do not reflect maneuverability when the EPL/SHaPoLi system is in the override condition, the system should not be overridden except in an emergency. Additional safety measures should be considered by the COTP, OCMI, pilots, or other authorities prior to entry into U.S. territorial waters if a determination is made that power above the EPL/SHaPoLi setpoint is necessary for the restricted waters transit.
 - d. If a determination is made that additional power above the EPL/SHaPoLi set point is necessary to safely transit in restricted waters and an updated pilot card and wheelhouse poster for the EPL/SHaPoLi override condition is onboard, an EPL/SHaPoLi may be overridden. The override procedure must be completed well in advance of when it is determined to be be necessary for safe operation while navigating in restricted waters. Discretion should be exercised when considering override of a mechanical EPL/SHaPoLi versus the addition of other operational safety measures to assist with underpowered ships.
 - e. Ships should follow the guidance in references (a) and (b) for recording and reporting EPL/SHaPoLi override and reserve power usage to the flag state and/or Recognized Organization (RO). U.S. flagged ships shall make reports to Flag State Control (CVC-4) at FlagStateControl@uscg.mil. EPL/SHaPoLi override and reserve power usage by any ship in U.S. waters must also be reported to the cognizant OCMI. Contact information for each OCMI can be found on the Coast Guard's Prevention Directory Contact List.

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- f. Operators are reminded that the system must be re-engaged when the ship is clear of the area or situation that required system override.
- 6. <u>DISCLAIMER</u>. This policy is neither a substitute for applicable legal requirements, nor is it itself a rule. It is neither intended to nor does it impose legally binding requirements on any party. It represents the Coast Guard's current position on this topic and may assist industry, mariners, the public, and the Coast Guard, as well as other federal and state regulators, in applying statutory and regulatory requirements. Alternative approaches for complying with these requirements may be considered. Information should be made available to Commandant (CG-ENG) to show that the approach satisfies the requirements of the applicable statutes and regulations.
- 7. <u>QUESTIONS.</u> Questions concerning the use of EPL/SHaPoLis or suggestions for improvements of this policy may be directed to the Coast Guard Office of Design and Engineering Standards (CG-ENG) at <u>CGENG@uscg.mil</u>.

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