# *Lloyd`s Classification Limited*

Circular Information

Circular No.: CIR2021-1
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Subject
Survey and Certification for EEXI required by the Amendments to ANNEX VI of MARPOL

To whom it may concern

At the 76th session of the IMO Marine Environment Protection Committee (MEPC 76) held in June 2021, further amendments to MARPOL Annex VI were adopted (IMO Resolution MEPC.328(76)) to implement the Energy Efficiency Existing Ship Index (EEXI) as a technical approach to achieve the short-term target for improved transportation efficiency of at least 40% compared to 2008 and will enter into force on 1 November 2022.

EEXI is calculated using the same formula as EEDI and represents "the amount of $CO_2$ emissions from a ship when the ship sail transports one ton cargo for one nautical mile". Regardless of ship's delivered date, ships of 400 gross tonnage and above engaged in international voyages are subject to the EEXI regulations and the EEXI of each ship is to be calculated. Ships of a specific size and above subject to the EEXI regulations need to comply with the requirement equivalent to the EEDI requirement as of 2023. Under the EEXI regulations, "Bulk carrier", "Tanker", and "Ro-ro cargo ship (vehicle carrier)" need to comply with the EEXI requirement equivalent to Phase 2 EEDI requirement, while "Containership", "General cargo ship", "LNG carrier", and "Gas carrier" comply with the EEXI requirement equivalent to Phase 3 EEDI requirement. Therefore, a ship subject to EEDI regulations which comply with the Phase 2 or Phase 3 requirement automatically complies with the EEXI regulations. If a ship does not meet the EEXI requirement, the ship needs to implement any countermeasures, such as engine power limitation, installation of energy saving devices, etc. to improve the EEXI. Ships delivered before 1 January 2023 need to comply with the EEXI regulations by the first periodical survey of IAPP Certificate on or after 1 January 2023. On the other hand, ships delivered on or after 1 January 2023 need to comply with the EEXI regulations at the delivery. There are about 7,200 ships registered with ClassNK which are subject to the EEXI regulations and about 6,050 ships will need to implement any countermeasures such as engine power limitation. This is equivalent to about 84% of the total number of ships subject to EEXI regulations, which means that a large number of ships need to comply with the EEXI regulations.

This Technical Information provides an overview of the EEXI regulations, preparation for the EEXI regulations, and the procedure of the document review, on-board survey, and issuance/re-issuance of IEE Certificate.

・ Overview of EEXI regulations

(1) Ships of 400 gross tonnage and above engaged in international voyages are subject to the EEXI regulations. The EEXI regulations apply to not only ships delivered before 1 January 2023 but also ships delivered on or after 1 January 2023, when the EEXI regulations commence. Ships delivered on or after 1 January 2023 need to comply with both the EEDI and EEXI regulations at delivery.
(2) The Energy Efficiency Existing Ship Index (hereinafter referred to as "Attained EEXI") is to be calculated as an energy efficiency index for individual ships subject to EEXI regulations. The Attained EEXI can be calculated by the same formula as Attained EEDI. If the ship’s Attained EEDI is equal to or less than the allowable maximum value of Attained EEXI (hereinafter referred to as "Required EEXI"), the Attained EEDI can be used as an

alternative to the Attained EEXI.
(3) Ships of a specific size and above subject to the EEXI regulations need to comply with the Required EEXI which is equivalent to the Required EEDI as of 2023. (However, the Required EEXI of some specific ship types is slightly relaxed from the Required EEDI as of 2023.)
The Required EEXI is calculated by multiplying the average of Attained EEDI for each ship type in the EEDI regulations (hereinafter referred to as "EEDI Reference Line") by the reduction factor specified for each ship type and size.
(4) If the ship's Attained EEXI exceeds the Required EEXI, the ship needs to implement countermeasures, such as engine power limitation, installation of energy saving devices, etc. to improve the Attained EEXI up to the Required EEXI.
(5) Ships delivered on or after 1 January 2023 need to comply with both the EEDI and EEXI regulations at delivery. At the initial survey of the International Energy Efficiency Certificate (hereinafter referred to as "IEE Certificate"), compliance with both of the regulations will be confirmed, and the IEE Certificate will be issued.
For ships delivered before 1 January 2023, compliance with the EEXI regulation will be confirmed at the first annual, intermediate or renewal survey (hereinafter referred to as "periodical survey") of the International Air Pollution Prevention Certificate (hereinafter referred to as "IAPP Certificate") on or after 1 January 2023, and the IEE Certificate will be re-issued.