



GUIDE FOR

LNG CARGO READY VESSELS

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Foreword

The U.S. shale oil and gas revolution has initiated a shift in global liquefied natural gas (LNG) trade and stimulated growth in associated production of Natural Gas Liquids, including liquefied petroleum gas (LPG) and ethane (LEG). Whilst LPG products can be transported in traditional LPG carriers, ethane has traditionally been consumed by domestic markets rather than being shipped overseas. With domestic markets unable to absorb the large volumes of ethane an opportunity is arising to ship liquefied ethane gas overseas. Historically only a limited number of small ethylene carriers were suitable to carry ethane. The recent growth in ethane export has stimulated the construction of dedicated ethane carriers.

The current LEG market is still relatively small but there are undeniable signs that trading volumes will grow significantly and there will be demand for significantly larger ethane carriers. The first Very Large Ethane Carriers (VLEC) entered into service in 2016. Industry stakeholders realize ethane remains a niche market in its infancy and vessel owners and financiers are demanding flexible designs, allowing the carriage of alternative cargoes. For VLECs up to about 100,000 m³ flexibility can relatively easily be provided by enabling the vessels to carry LPG cargoes. Significantly larger vessels would however not be suitable to trade to conventional LPG terminals due to terminal restrictions. Enabling the vessel to carry LNG cargo provides greater opportunities and flexibility to owners/operators. Designing a vessel that can carry both LEG and LNG is possible but increases the cost of the vessel. Designing a vessel to be “LNG Cargo Ready” limits the initial investment while maintaining a viable option to select LNG as a future cargo.

The scope of such modifications can significantly differ from ship to ship and needs to be agreed between the buyer and the shipbuilder. In order to facilitate future modifications, the ship buyers and shipbuilders must make a significant effort to document what features should be incorporated in the vessel design and in the shipbuilding contract.

This Guide applies to liquefied gas carriers, such as Ethane or Ethylene carriers, that have also been designed and constructed for possible future carriage of LNG cargo. ABS recognizes the need for defining the “LNG Cargo Ready” scheme, which documents LNG cargo compliance and thereby assists owners, designers, and operators in taking advantage of the alternative LNG cargo carriage option. This Guide specifies the ABS requirements for obtaining the class notation **LNG Cargo Ready**.

This Guide becomes effective on the first day of the month of publication.

Users are advised to check periodically on the ABS website www.eagle.org to verify that this version of this Guide is the most current.

We welcome your feedback. Comments or suggestions can be sent electronically by email to rsd@eagle.org.



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