

Nihon Shipyard and Mitsubishi Shipbuilding launch joint study for Development of an Ocean-Going LCO₂ Carrier

**-- Project Utilizing the Strengths and Knowledge of Both Companies
to Support the Emerging Era of Large-Scale Marine Transport of CO₂ --**

- ◆ *Project to utilize Nihon Shipyard's wealth of shipbuilding experience in commercial ships and marine structure and advanced technology capabilities, along with Mitsubishi Shipbuilding's knowledge regarding design and construction of liquified gas carriers.*
- ◆ *Aiming for completing construction at Nihon Shipyard from 2027 onwards.*

Tokyo, May 22, 2023 – Nihon Shipyard Co., Ltd., a Tokyo-based joint venture for ship design and sales between Imabari Shipbuilding Co., Ltd. and Japan Marine United Corporation and Mitsubishi Shipbuilding, a part of Mitsubishi Heavy Industries (MHI) Group, have started joint study for the development of an ocean-going liquified CO₂ (LCO₂) carrier. Nihon Shipyard is pursuing this project with the aim of completing construction of the vessel from 2027 onwards.



Conceptual image of the ocean-going LCO₂ carrier

Demand for LCO₂ carriers is expected to grow in the future as a means to transport large volumes of CO₂ safely for CCS (Carbon dioxide Capture and Storage) projects, in which captured CO₂ is stably stored underground. Following the lead of the EU region, it is expected that CCS project in Asia will be accelerated by the promotion of national governments, so it will be essential to establish a shipbuilding framework in Japan to meet the demand for LCO₂ carriers.

This project will take advantage of the wealth of shipbuilding experience for various type of vessels and advanced technology capabilities that Nihon Shipyard has accumulated over years, as well as the knowledge and advanced gas handling technology that Mitsubishi Shipbuilding has acquired in designing and constructing liquified gas carriers (liquified petroleum gas (LPG) and liquified natural gas (LNG) carriers), as strengths that can be mutually supplemented.

Nihon Shipyard, in anticipation of future regulations restricting CO₂ emissions, is proactively working toward the commercialization of LNG and ammonia fueled ships. As its next initiative, the company is considering the potential for LCO₂ carriers, aiming to further solidify its leading position in the industry.

MHI Group is pursuing strategic measures to strengthen its business for the energy transition. For its role in this initiative, in addition to conventional shipbuilding centered on manufacturing, Mitsubishi Shipbuilding aims to utilize its marine engineering technologies rooted in shipbuilding to contribute to the development of the maritime industry in Japan and around the world. This project is a part of that effort. Through collaboration with multiple Japanese shipping companies and with domestic/overseas energy companies, and also construction of demonstration ship for transport of LCO₂, Mitsubishi Shipbuilding is actively pursuing the development of LCO₂ carriers and commercialization of LCO₂ shipping.

Going forward, Mitsubishi Shipbuilding and Nihon Shipyard will provide the world with the LCO₂ carriers necessary to establish a CCS value chain, and contribute to the realization of a carbon neutral world.

Image movie of LCO₂ carrier

<https://youtu.be/ouLIURYVtxA>

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About Mitsubishi Heavy Industries Group

Mitsubishi Heavy Industries (MHI) Group is one of the world's leading industrial groups, spanning energy, smart infrastructure, industrial machinery, aerospace and defense.

MHI Group combines cutting-edge technology with deep experience to deliver innovative, integrated solutions that help to realize a carbon neutral world, improve the quality of life and ensure a safer world.

For more information, please visit www.mhi.com or follow our insights and stories on spectra.mhi.com.

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