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Nihon Shipyard Co., Ltd.
Mitsubishi Shipbuilding Co., Ltd.

Memorandum of Understanding (MOU) is Signed on Collaborative Study for Ocean-Going Liquefied CO₂ Carriers toward the Realization of Large-Scale International Transportation from 2028 onwards

- Working with Mitsui & Co., Ltd. and Mitsubishi Corporation for standardization of ship specification and design to realize large-scale international transportation from 2028 onwards
- Utilizing the technologies and construction know-how of Mitsubishi Shipbuilding and Nihon Shipyard, work to establish the construction and production infrastructures of LCO₂ carriers, and examine consistency with onshore facilities



Conceptual image of the ocean-going Liquefied CO₂ (LCO₂) carrier

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 signed an MOU with Mitsui & Co., Ltd. and Mitsubishi Corporation on the collaborative study for ocean-going liquefied CO₂ (LCO₂) carriers to realize large-scale international transportation in Japan initiated CCS (Carbon dioxide Capture and Storage) from 2028 onwards. The four companies will proceed with this initiative aiming to apply it at the future commencement of CCS business led by the Japanese government.

Japan Organization for Metals and Energy Security (JOGMEC) launched a feasibility study on Japanese Advanced CCS Project, as a public offered project in FY2023. Demand for LCO₂ carriers is expected to increase in the near future to transport captured CO₂ from Japan to storage areas in various CCS projects. It is very important to standardize the specification and design of LCO₂ carriers across each project as well as to establish a realistic production supply chain so that LCO₂ carriers will be constructed and supplied stably in Japan and CCS value chain will be achieved with improved economic efficiency. The

signed MOU suggests that four companies have agreed to make a collaboration to solve these issues related to the construction of LCO₂ carriers and marine transportation, starting with Japan initiated CCS projects to the Asia-Pacific region.

Nihon Shipyard and Mitsubishi Shipbuilding have already begun joint study to build LCO₂ carriers, demands for which are expected to increase in the near future, by making the most of their strengths while mutually complementing each other.

Mitsui & Co., Ltd. and Mitsubishi Corporation, who are now advancing business development for early launch of the CCS business, are selected as leading companies in the Japanese Advanced CCS Project by JOGMEC aiming for overseas CO₂ storage.

Nihon Shipyard is actively working on commercialization of LNG and ammonia fueled ships as preparation of upcoming strengthening of GHG emission regulations. As the next initiative, the company is contributing to realize a sustainable carbon neutral society by delivering LCO₂ carriers essential for establishment of CCS value chain.

MHI Group is pursuing strategic measures to strengthen its business for the energy transition. Mitsubishi Shipbuilding, for its role in this initiative, efforts to contribute the advance of the maritime industry in Japan and around the world by utilizing its shipbuilding-based marine engineering technologies in addition to conventional shipbuilding. Mitsubishi Shipbuilding will actively promote the development of LCO₂ carriers and establishment of CCS value chain through collaboration with various domestic/overseas companies, and also construction of demonstration ship for transport of LCO₂ for New Energy and Industrial Technology Development Organization (NEDO).

Collaborative Study Framework



Image movie of LCO₂ carrier

<https://youtu.be/EEht1oGg5fU>