

明日をひらく都市  
OPEN X PIONEER  
YOKOHAMA



September 18th, 2024

City of Yokohama  
Port and Harbor Bureau

## Methanol bunkering simulation at the Port of Yokohama

### ~Simulated Bunkering for the Implementation of Methanol Use as Marine Fuel~

Today, the City of Yokohama (Mayor Takeharu Yamanaka), together with Maersk A/S (Representative in Japan: Kohei Yamamoto), Mitsubishi Gas Chemical Company, Inc. (President: Masashi Fujii), KOKUKA SANGYO Co.,LTD (President: Kimifumi Imagawa), Idemitsu Kosan Co.,Ltd. (President: Shunichi Kito), Uyeno Transtech Ltd. (President and COO: Gen Uyeno) and Yokohama Kawasaki International Port Corporation (President and CEO: Shinya Hitomi) conducted a “Methanol Bunkering\*1 Simulation \*2” .

We will use the knowledge gained through this simulation to collaboratively study how to supply methanol as a marine fuel, and with the cooperation of relevant government agencies \*3 , we will continue to work toward the implementation of methanol bunkering in Japan.

- \*1 Bunkering refers to the supply of fuel for use on vessels.
- \*2 We call it a simulation because the work was simulated as a preliminary step to the actual fuel supply.
- \*3 Port and Harbor Bureau, Ministry of Land, Infrastructure, Transport and Tourism, September 12 announcement, “Study Group on Methanol Bunkering Base,” etc.  
[https://www.mlit.go.jp/report/press/port04\\_hh\\_000475.html](https://www.mlit.go.jp/report/press/port04_hh_000475.html)



Methanol-fueled container ship “Alette Maersk”



Ship to Ship berthing situation

Carbon Neutral Port Initiative at the Port of Yokohama



## 1 About Methanol

Ship fuels account for about 2.5% of global CO<sub>2</sub> emissions, and efforts to switch to alternative fuels to reduce greenhouse gas emissions are increasing. Methanol is known as a clean fuel due to its low CO<sub>2</sub> emissions during combustion and low emissions of NO<sub>x</sub> (nitrogen oxides), SO<sub>x</sub> (sulfur oxides), and PM (particulate matter). In addition, there are increasing attempts to synthesize methanol from biomass and hydrogen derived from CO<sub>2</sub> and renewable energy sources, which is attracting attention as a carbon-neutral fuel. In the international shipping market, the use of methanol as an environmentally friendly alternative to heavy fuel oil has already begun with an eye on shifting away from fossil resources, and methanol-fueled ships are becoming increasingly popular. Methanol-fueled vessels are expected to increase in Japan and the establishment of a methanol fueling system at Japanese ports is important in order to reduce greenhouse gas emissions in marine transportation and to ensure the international competitiveness of ports.

## 2 About Methanol Bunkering Simulation

The City of Yokohama, Maersk A/S, Mitsubishi Gas Chemical Company, Inc. KOKUKA SANGYO Co.LTD, Idemitsu Kosan Co.Ltd., Uyenno Transtech Ltd., and Yokohama Kawasaki International Port Corporation have been strengthening activities to promote the use of ~~fuel~~ methanol fuel at the Port of Yokohama. The “Methanol Bunkering Simulation” was conducted as one of the initiatives to realize safe fuel supply by Ship-to-Ship.

In today's activities, the Eika Maru, owned by KOKUKA SANGYO Co.,LTD and scheduled to be used for bunkering methanol, was berthed to a methanol-fueled container vessel operated by Maersk A/S, which can run on methanol, to identify hose connection issues. The participating companies brought their vessel equipment and knowledge to confirm the actual fuel bunkering operations required.

Although methanol has already been transferred between chemical tankers on a ship-to-ship basis as a chemical cargo, this initiative, which aims to see methanol used as a source of fuel in the future, is a major step toward establishing a regular methanol bunkering system in Japan.

We will continue discussions with the relevant government agencies in order to utilize the knowledge gained from this program in the establishment of a methanol fuel supply system in Japan in the future.

## 3 Introduction of each company

Maersk A/S	<a href="https://www.maersk.com/about">https://www.maersk.com/about</a>
Mitsubishi Gas Chemical Company, Inc.	<a href="https://www.mgc.co.jp/eng/">https://www.mgc.co.jp/eng/</a>
KOKUKA SANGYO Co.,LTD	<a href="https://www.kokuka.co.jp/en/">https://www.kokuka.co.jp/en/</a>
Idemitsu Kosan Co.,Ltd.	<a href="https://www.idemitsu.com/en/index.html">https://www.idemitsu.com/en/index.html</a>
Uyenno Transtech Ltd.	<a href="https://www.uyenno-group.co.jp/en/index.html">https://www.uyenno-group.co.jp/en/index.html</a>
Yokohama Kawasaki International Port Corporation	<a href="https://ykip-eng.com/">https://ykip-eng.com/</a>

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