

Wärtsilä to future-proof container ships with scrubber technology

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Wärtsilä has been contracted to supply its latest carbon capture and storage-ready scrubber systems – CCS-Ready scrubbers – for three container ships owned by German operator Leonhardt & Blumberg.

A CCS-Ready solution is expected to assure Leonhardt & Blumberg that it has continued regulatory compliance for SO_x emissions and opens the door to a smooth CCS system adoption in the future.

Following a number of newbuild orders for CCS-Ready scrubbers, this will be one of the first retrofit projects prepared for CCS in the marine industry.

The order was booked by Wärtsilä in the third quarter of 2024.

The Wärtsilä solution significantly reduces a vessel's operational expenses by enabling it to operate with less costly and more readily available fuel (HFO). At the same time, it significantly reduces the ship's carbon footprint in line with the industry's decarbonisation targets.

“We are working hard to operate our fleet in the most sustainable way possible,” says Tim Goettsche, Fleetmanager of Leonhardt & Blumberg. “This retrofit project with Wärtsilä's advanced exhaust treatment system represents an exciting step forward in reducing GHG emissions with CCS technology. It will give our ships a head-start in being compliant with future regulatory requirements.”

The scrubbers are termed CCS-Ready because, as part of their installation, Wärtsilä will perform additional design and engineering work to ensure that future retrofits for a full CCS system on the vessels are accounted for.

An integrated CCS system, working with a scrubber system, is based on the principle of removing as many main pollutants from the exhaust as possible, tackling each pollutant in a modular fashion. Once other gases are removed, the remaining exhaust can then be scrubbed for carbon which can be safely stored onboard and disposed of on arrival at port.

“This project highlights and strengthens Wärtsilä’s commitment to deliver sustainable solutions for our customers. Our CCS-Ready scrubber technology has been proven in extensive testing over the past two and a half years. It is based on our deep experience and in-house know-how and will deliver a significant contribution to the industry’s efforts to reduce shipping’s environmental impact,” commented Sigurd Jenssen, Director of Exhaust Treatment at Wärtsilä Marine.

The three 3,600 TEU container vessels will be installed with a CCS-Ready, Vessel General Permit (VGP)-compliant, 27.5 MW Wärtsilä scrubber system.

The systems are being delivered on a fast-track basis, commencing in September of this year. The retrofit engineering and installation of the equipment onboard the vessels will be undertaken by Greentec Marine Engineering which is a high-tech service company specialising in marine and offshore engineering services.