

Environmental Sustainability Bulletin 04/20

August 2020

These bulletins summarise key ideas and solutions to environmental sustainability matters, allowing wider dissemination of lessons learned. The information below has been provided in good faith by IMCA members and should be reviewed individually by recipients, who will determine its relevance to their own operations.

The effectiveness of these bulletins depends on receiving reports from members in order to pass on information and continue to present innovative solutions. Please consider adding the IMCA Secretariat (sustainability@imca-int.com) to your internal distribution list for similar internal reports and/or manually submitting information on specific solutions that you consider may be relevant. All information can be anonymised or sanitised, as appropriate.

A number of other organisations issue environmental sustainability updates and similar documents which may be of interest to IMCA members. Where these are particularly relevant, these may be summarised or highlighted here. Links to known relevant websites are provided at <http://www.imca-int.com/links>. Additional links should be submitted to sustainability@imca-int.com.

Any actions, lessons learned, recommendations and suggestions in IMCA Environmental Sustainability Bulletins are generated by the submitting organisation. IMCA Environmental Sustainability Bulletins provide, in good faith, information for the benefit of members and do not necessarily constitute IMCA guidance, nor represent the official view of the Association or its members.

An Alternative Fuels Initiative (LNG, GTL, HVO)

Heerema Marine Contractors believes that a responsible company has an obligation to act in a sustainable manner. This includes the minimisation of our impact on the environment, which is why we are investing in our alternative fuels initiative in order to reduce our carbon footprint and emissions.

Heerema has already invested heavily in cleaner fuels to power its vessels, exemplified by the use of LNG for the *Sleipnir*. In addition to this major step forward, ongoing efforts are made to further reduce emissions on the existing Heerema fleet. That is why Heerema is looking into the usage of Gas To Liquid fuel (GTL) and Hydrotreated Vegetable Oil (HVO) to further reduce its footprint.

These are both synthetic, paraffinic diesel fuels. Both have the potential to greatly reduce emissions - especially SO_x and Particulate Matter (PM) - and can even reduce CO₂ well-to-propeller emissions up to 80% in some cases. These are so-called drop-in fuels, meaning virtually no adjustments are required for implementation.

Sustainable innovation must also include operational best practices, which will be delivered through our use of either LNG, GTL, and HVO fuels. LNG is much cleaner than convention fuels, with very low emissions of NO_x, SO_x, and particulate matter (PM). All these fuels reduce emissions (CO₂, NO_x, PM) onboard Heerema's vessels. In addition to environmental advantages, GTL/HVO might provide a reduction in particulate matter or smog on board which is also beneficial to the crew.

This is backed by the pilot which has taken place on board *Thialf* to test the performance of GTL and HVO. The results show great promise in the reduction of local emissions for the crew and the environment.



“prEN” specification Paraffinic diesel fuels
 These fuels, meeting the EN15940 Class A standard offer cleaner alternatives for transport. Paraffinic fuels are clean, high quality diesel fuels made from a wide variety of feedstocks, and include GTL (Gas to Liquid), as well as HVO (Hydrotreated Vegetable Oil). Paraffinic fuels are mutually interchangeable with other fuels and can be used at any blending rates up to 100% in current and future diesel engines. Therefore, these fuels can be distributed, stored and used with the existing infrastructure, and are available now.