27/July/2022

PRESS RELEASE

EXPERIENCE ▶ INNOVATION ▶ SUSTAINABILITY

VPS partners with GCMD to develop biofuels as a viable drop in green fuel for the shipping industry

Over the last 2 years, the use of biofuels as a sustainable fuel option to ship owners and operators has increased in pace. VPS has been involved in a number of successful biofuel trials with international ship owners, demonstrating that biofuels can be readily used as drop-in fuels with the appropriate handling and management.

Whereas the tested biofuels show fuel quality characteristics to be generally of good standard so far, the challenges with biofuels are many. One of the key challenges is poor oxidation stability which causes the biofuel to biodegrade over time, potentially causing sludging of engines, fuel injectors and filters. The susceptibility of biofuels to oxidise, with on spec fuels degrading in quality with time, is magnified with improper storage and handling. VPS has seen real differences in the performance of marine biofuels relating to this important characteristic, which can be measured by testing specific parameters.

In addition to the standard ISO8217 scope, VPS has found the following parameters important in assessing the quality characteristics of biofuels as marine fuels:

- **Oxidation stability** - to measure stability of the fuel
- **FAME content –** since most biofuels being used are blends, accurate measurement of the bio-component (e.g. FAME) is critically important.
- **Microbial growth and water content** - to assess long term storage & instability
- **Cold-flow properties**
- **Lubricity**
- **Corrosion of components**
- **Impact on energy value** - due to presence of FAME

VPS would advise testing all biofuels for ISO8217 parameters and an additional test slate to measure the above parameters, to confirm the fuel quality prior to use. In the case of FAME blends, VPS would recommend confirming prior to blending that the FAME meets ISO14214 (which specifies the requirements and test methods for FAME). By using VPS test results and following advice, ship operators can indeed use biofuels as drop-in bunker fuels with confidence, provided that the necessary precautions are taken in the storage and handling of these fuels.

Dr. Malcolm Cooper, CEO of VPS said,

“VPS is delighted to partner with the Global Centre for Marine Decarbonisation in this very important work. Having our own laboratories located in the key bunkering ports of Singapore, Rotterdam and Houston puts us in a great position to support this business-as-usual approach to testing these fuel blends in real-life operating environments. We will leverage our experience gained in testing these biofuels in marine environments to date along with our presence on the various Technical Committees, as explained by Captain Rahul Choudhuri, VPS AMEA MD, in the GCMD press release.”

To assess the entire supply chain and provide a detailed framework on the sustainable use of biofuels as a green option for shipping, the Global Centre of Maritime Decarbonisation (GCMD) is embarking on this ambitious project. See details of GCMD press release here. https://www.gcformd.org/press-release-dropin-biofuel