

## EMISSIONS:

### IMAREST (DUBAI):

With less than half a year until the implementation of IMO's limit for Sulphur in fuel oil used on-board ships, Total has been hosting a series of Global Sulphur Cap Forums in major shipping hubs, to help ship owners finalise their compliance plans well in advance of next year's January 1<sup>st</sup> deadline. The Global Sulphur Cap Forum in Dubai showcased Total's current range of fuel and lubricant solutions as well as new products under development to support 2020 conformance strategies.

Experts from Total shared their capabilities underpinning viable solutions and safe operations, with a packed room of 210 ship-owners, managers, charterers and other industry professionals at an Institute of Marine Engineering, Science & Technology (IMarEST) UAE branch meeting.

Following the welcome address from Nikeel Idnani IMarEST UAE branch Honorary Secretary, Serge Dal Farra, Marketing Director at Total Lubmarine in his introduction of the forum's agenda commented, "The full range of our best marine expertise are in the Middle East to present everything from fuel quality and lubricating strategy through to future fuels and availability."

David Pivetta, Commercial Director SEMEIA Total Lubmarine, when terming 2020 as a game changer, quoted MSC Group Executive Vice President Bud Darr, "There has never been such a moment in the entire history of the shipping industry", suggesting that unprecedented challenges loom with the oncoming wave of innovation and regulatory upheaval. He went onto describing the background and enforcement of IMO MARPOL Annex VI including regional complexities stating clearly that noncompliance was not an option.

Robert Joore General Manager Total Lubmarine emphasised Total's commitment to the shipping industry, highlighting the organization's commitment to becoming a responsible energy major by integrating climate into their strategy. It was evident that Total matches rhetoric with reality as they are both a supplier (bunker & LNG fuels, lubricants and batteries) and a customer (chartering vessels) of the shipping industry.

Frederic Vazzoler, Global Sales & Development Director Total Marine Fuels, graphically exemplified estimates on a future product mix as we enter what he termed a 'multifuel era' with HSFO, the new compliant 0.5%S fuel, MGO and LNG. As an active member in the ISO specification committee and expertise in blend development, Frederic assured the audience that ISO working group will make available the much-coveted specifications for VLSFO during the fourth quarter of 2019. Towards this end, TOTAL (which was the first company) carried out VLSFO trials in March 2018 during an Asia – Europe voyage during which quality was closely monitored. They received excellent feedback and have subsequently carried out several more trials effectively managing risk of ships modified fuel oil systems and processes commensurate with the IMO's guidance on a Ship Implementation Plan for 2020.

Nikolaos Kotakis who manages OEM Relationships for Total Lubmarine presented 'Lubrication Challenges and Solutions' which was of interest to the marine engineers in the room especially the new engine technologies including Tier III compliance methodologies. He then explained the fuel and lube oil drivers in the transition period in 2019 and the NEW ERA in 2020. For 2-stroke and 4-stroke engines, Nikolaos laid out compliant options viz. Low Sulphur fuels (VLSFO < 0.50%S, ULSFO/MGO < 0.10% S), post-treatment (Scrubbers) or low-Carbon fuels (LNG/LPG).

For each energy option, Nikolaos proposed suitable lubricating solutions with appropriate BN (Base Number) to neutralize Sulphuric acid formed during combustion, thus preventing corrosion, cylinder wear and scuffing resulting in an extended TBO (Time Between Overhauls).

To provide an opportunity for wider stakeholder engagement, a round-up of the key themes were discussed in a Q&A session with the audience which resulted in the understanding that for those ship owners who are trading water in their 2020 decisions, it is important to manage the transition with a fuel-oil changeover plan needing to be in place for each vessel. Highlighting Total's wherewithal to supply compliant fuel options post 2020, Robert assured ship managers, "Whichever choice operators take, I believe we are unique in that we can provide VLSFO, HSFO and LNG out of one business unit. While unprecedented challenges may emerge for Ship Operators, we believe so will solutions".

Nikeel Idnani introduces the panellists

