

Capital Link's 8th Operational Excellence in Shipping Forum - Oct 2018

IMO 2020 & Marine Fuels — An Oil Major's Viewpoint

Energy lives here

Armelle Breneol – ExxonMobil Marine Fuels

Please note that the information in this document is supplied for information and discussion purposes only. While ExxonMobil has taken every care in the preparation of this document which has been developed using the best information currently available, it is intended purely as guidance. No responsibility is accepted by ExxonMobil for the accuracy of any information herein or for any omission herefrom. Neither ExxonMobil nor any of its affiliates, officers or employees shall be liable in any way (except in the case of fraud) for any direct, indirect or consequential loss of damage suffered by any recipient as a result of relying on any statement or information contained or omitted herein. Nothing in this document is intended to override the corporate separateness of affiliated companies. References to "ExxonMobil", "EM", "we", and "our" are used for convenience and may refer to one or more of Exxon Mobil Corporation, ExxonMobil Marine Limited or its affiliates



IMO Regulation

Global sulphur cap of 0.50% to be adopted in 2020

- No change to 0.10% sulphur ECA
- Fuels with sulphur content over 0.50%:no longer be allowed without abatement technology
- Enforcement will be handled by IMO member states
- The fuels supply chain would require reconfiguration





Compliance options

In 2020 about 95% of deep sea fleet will use 0.50%S compliant fuels



246 LNG vessels estimated by 2020 (excludes LNG carriers)

Ferries, Oil/Chemical tankers leading uptake; Containerships new-builds

67 supply locations concentrated in Europe



HSFO with Scrubbers

1,623 ships installed / on order, 68% retrofits

Scrubbers installed are open loop mainly, hybrid emerging

By 2020: estimated 2,500 to 3,000 ships fitted



0.50%S or 0.10%S

Composition of new 0.50%S fuels remain uncertain

Concerns over compatibility and stability issues may drive higher demand of MGO

Source: DNV LNGi, EGCSA, Platts'



Choosing a suitable low sulphur fuel

"it is all about the Know"

- "Know" your supplier
 - Quality, Reliability, Integrity
 - Innovation
- "Know" your fuel
 - ISO 8217: 2017
 - Fit for Use
- "Know" your onboard handling
 - Best practices
 - Technical support
- "Know" your lubricants
 - Best practices

News Release

CONTACT: Nathalia Santos nsantos@webershandwick.com 0044 20 7067 0658



FOR IMMEDIATE RELEASE 3rd OCTOBER 2018

ExxonMobil Confirms Specification Details for its 2020 Compliant Fuels

Additional locations announced for availability of ExxonMobil's 0.50 per cent sulphur fuels

- All of ExxonMobil's announced low sulphur compliant fuels will be residual grades
- Fuels will be compatible with each other, provided best practice guidance for bunkering, handling and storage is followed
- Newly developed cylinder and engine oils, as well as services, will complement ExxonMobil's fuel offer







ExxonMobil issues best-practice tips for switching to low sulphur fuel



ExxonMobil fuels' development process

Development goes beyond ISO 8217 testing

- Cross Functional Team
 - ExxonMobil Research and Engineering (EMRE)
 - Refinery Product Quality Advisors
 - Refinery Optimizers
 - Marine Fuel Technical Advisors
- Rigorous process on fit for use assessment
- Patented technology identifying compatibility issues





ExxonMobil commitment

Long term commitment to cleaner fuels, including marine

- Long-term refinery investments
 - New delayed coker unit, Antwerp
 - Hydrocracking expansion, Rotterdam
 - Evaluating multi-\$B project, Singapore
 - Evaluating significant upgrades, Fawley
- 0.50%S fuels available ahead of 2020
- Technical support at point of use
- New range of marine lubricants and services

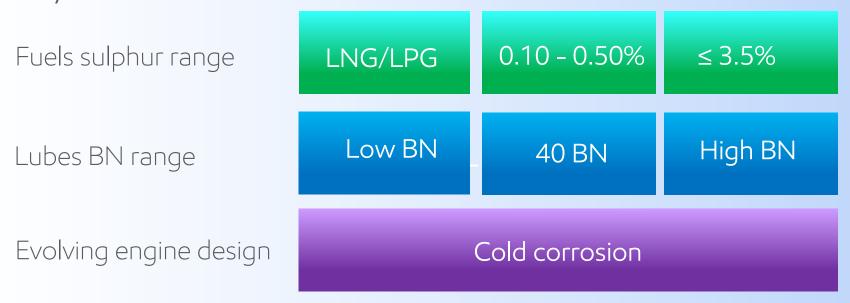




ExxonMobil lubricants' for 2020

Landscape will be simplified post 2020

Cylinder oil



- TPEO: working with OEMs to develop next generation oils
- Mobil Serv Cylinder Condition Monitoring



Resources

View our media resources to find out more about ExxonMobil Marine



ExxonMobil Marine website



ExxonMobil Marine YouTube channel



ExxonMobil Marine Voyager newsletter

ExonMobil