

2020 Sulphur cap Status review

London, 17th Oct 2019



Resolution MEPC.176(58) ---- EIF: 1/07/2010

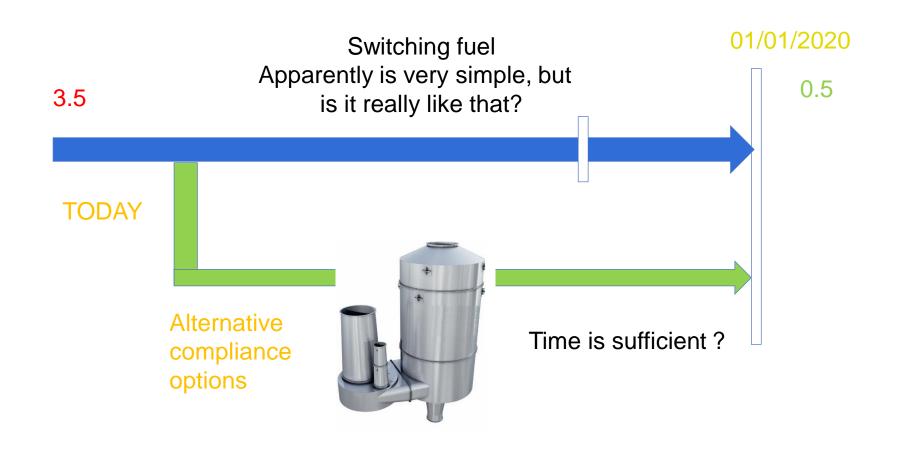
The sulphur content of any fuel oil used on board ships shall not exceed the following limits:

0.50% m/m on and after 1 January 2020.

Resolution MEPC.305(73) ----EIF: 1/03/2020

The sulphur content of fuel oil used or carried for use on board a ship shall not exceed 0.50% m/m.









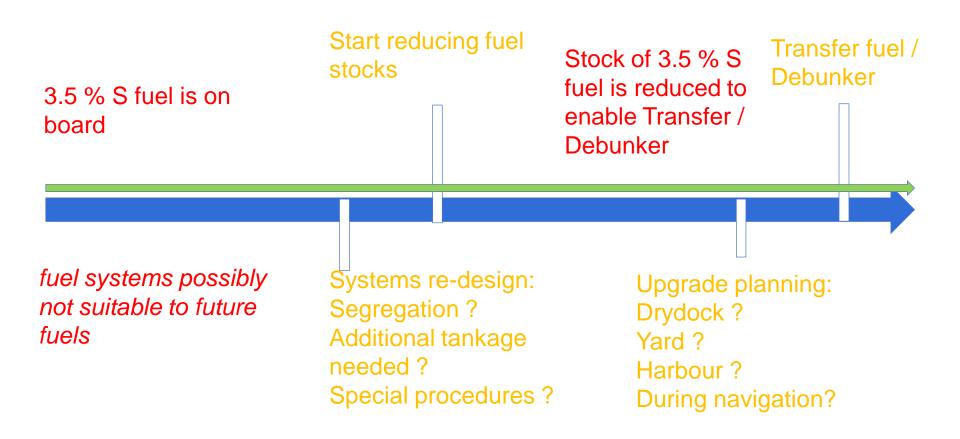
0.5 % S fuel is Start reducing fuel stocks
Stock of 3.5 % S fuel is reduced to enable Transfer / Debunker

Today:

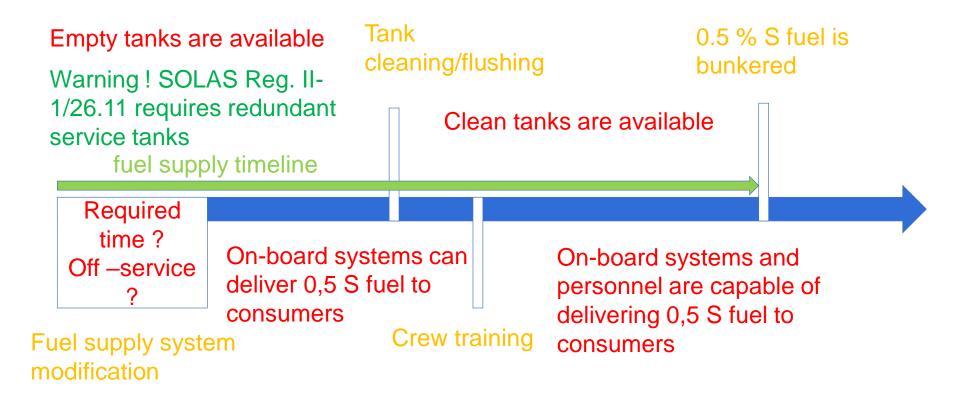
fuel systems possibly not suitable to future fuels or to multiple fuels (Compatibility issues)

Systems re-design: Segregation? Additional tankage? Special procedures? Upgrade planning: Drydock? Yard? Harbour? During navigation?



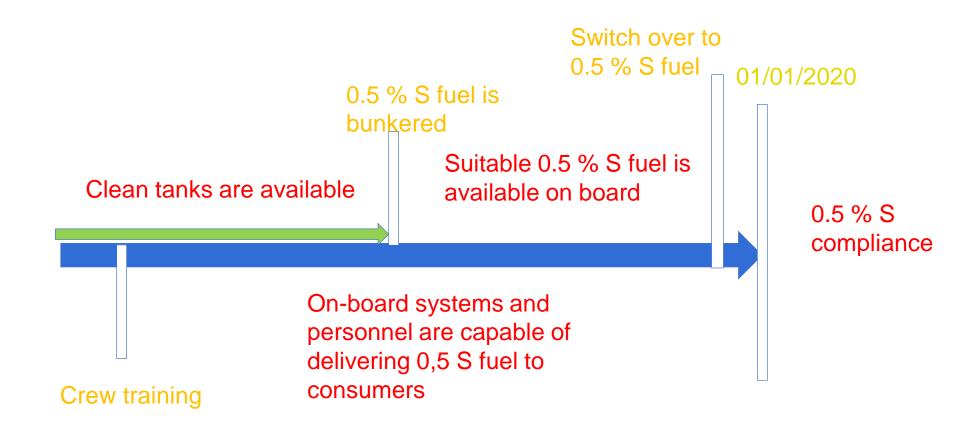






! Class survey and testing!







Most of the steps highlighted above are addressed in the available Guidelines either from IMO:

- Resolution MEPC.320 (74): 2019 GUIDELINES FOR CONSISTENT IMPLEMENTATION
 OF THE 0.50% SULPHUR LIMIT UNDER MARPOL ANNEX VI
- MEPC.1/Circ.875: GUIDANCE ON BEST PRACTICE FOR FUEL OIL
 PURCHASERS/USERS FOR ASSURING THE QUALITY OF FUEL OIL USED ON BOARD
 SHIPS

or from the industry:

IMO Circular Letter 4020: JOINT INDUSTRY GUIDANCE: The supply and use of 0.50% sulphur marine fuel



The process may be guided and documented by a Ship implementation plan, according to:

MEPC.1/Circ 878 Guidance on the development of a ship implementation plan for the consistent implementation of the 0.50% sulphur limit under MARPOL Annex VI

and IACS Members are assisting the shipowner in their preparation.



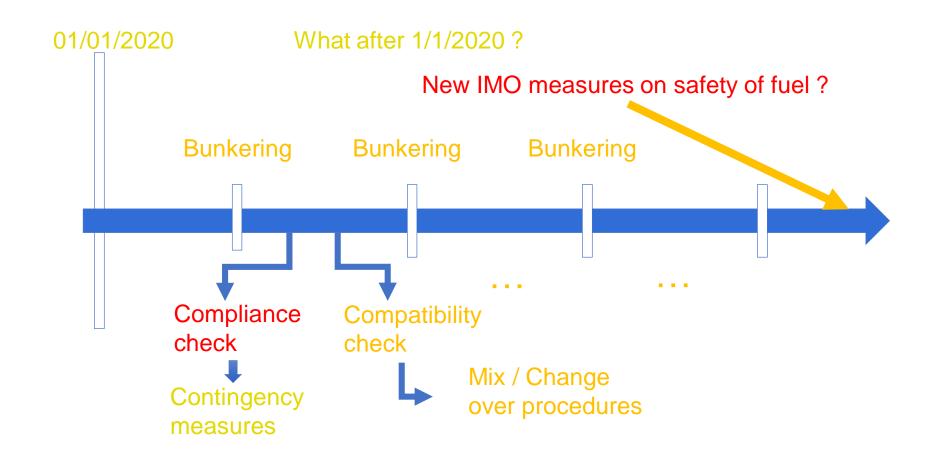
However, the above mainly concern the preparation to the one-time change for the 1-1-2020 deadline, but ships will continue to operate after 1-1-2020 in a somewhat new scenario:

- Stability, and compatibility of fuels may require to be checked regularly
- Compliance with Sulphur limit may require to be checked regularly
- What about handling tanks and systems after bunkering non compliant fuel (either due to unavailability or by supplier mistake)?



Operational procedures and/or contingency measures are to be made available for everyday handling of fuel







Other aspects to be considered:

- Change over between incompatible batches of fuel will imply some commingling in the service/daily tanks and in the piping systems
- Change over will be required between 0,50 % S and 0,10% S on entering/exiting ECAs

Will these operations cause problems?

Are solutions available?

Experience is still to be gained !!!



IACS also identified an issue that requires clarification:

SOLAS II-1/26.11 Requires TWO service tank for each type of fuel used on board, each having a capacity for 8 h of operation.

IACS considers that 0,10% S and 0,50% S fuel are not different types provided the viscosity is similar and they can be used interchangeably.

So two tanks, respectively filled with HSHFO and LSHFO are regarded to comply with the SOLAS requirement and also the MARPOL requirements for operation in SECA:

HSRMF

LSRMF

Each 8h operation M/E



However, a ship which operates D/G with distillate fuel, is also required to have two service tanks for distillate fuel. Two distillate fuel tanks, respectively filled with HSDMF and LSDMF, are regarded to comply with the SOLAS requirement.





Each 8h operation M/E



HSDMF

LSDMF

Each 8h operation D/G

IACS included in UI SC123 the following potential equivalent arrangement with two DMF tanks and one residual fuel tank (HSRMF/LSRMF) when main engines that can operate also on distillate fuel.

HSRMF / LSRMF

8h operation M/E



HSDMF

LSDMF

Each 4h Main Eng + 8h D/G operation

However, since this arrangement has not been agreed at MSC 101, it is presently unclear how existing ships could comply with the SOLAS requirement.