# Isle of Man Ship Registry Technical Advisory Notice



### **NOx Compliance for Ships Using Biofuel Blends**

Ref. TAN 008-22 Issued: 14/10/2022

The Ship Registry is receiving an increasing number of enquiries from ship owners who are wishing to undertake trials using biofuel blends as an alternative fuel. The Ship Registry strongly encourages owners to investigate the use of alternative fuels that reduce environmental impact and is keen to work with owners to achieve regulatory compliance.

#### 1. Application to MARPOL Annex VI

Currently Regulation 18.3.2 in MARPOL Annex VI has specific requirements for 'fuel oil for combustion purposes derived by methods other than petroleum refining'. There has been uncertainty whether this regulation would apply to a ship using fuels which blend refined petroleum products with biofuels (i.e. 'biofuel blends').

In particular, Regulation 18.3.2.2 requires that 'fuel oil for combustion purposes derived by methods other than petroleum refining' 'shall not cause an engine to exceed the applicable NOx emission limit set forth in paragraphs 3, 4, 5.1.1 and 7.4 of regulation 13'. This may require NOx emissions trials to determine. In the past, the Ship Registry has issued exemptions against this requirement for ships undertaking trials with biofuel blends.

## 2. Blends of <30% Biofuel by Volume

MEPC.1/Circ.795/Rev.6 clarifies the application of 18.3.2.2 to state that ships operating with a biofuel blend of not more than 30% by volume of biofuel should comply with Annex VI Regulation 18.3.1 and not 18.3.2. That is to say, such fuel should be treated as if it were a conventional fuel for the purposes of Regulation 18.3 and will not require an exemption from the Ship Registry against regulation 18.3.2.2.

#### 3. Blends of ≥30% Biofuel by Volume

MEPC.1/Circ.795/Rev.6 further clarifies that an engine capable of operating on a biofuel (or biofuel blend ≥30% by volume) without changes to its NOx critical components or settings/operating values outside those given by in the engine's approved Technical File may use the fuel without undertaking NOx emissions trials required by 18.3.2.2. Therefore there is no requirement for the Ship Registry to issue an exemption against this regulation.

Where an engine uses fuels that are biofuel or a biofuel blend  $\geq 30\%$  by volume that do not fall under the above paragraph, and has not been certified for that specific fuel at test bed in accordance with Regulation 13 of MARPOL Annex VI, the ship must demonstrate compliance with Regulation 18.3.2.2.

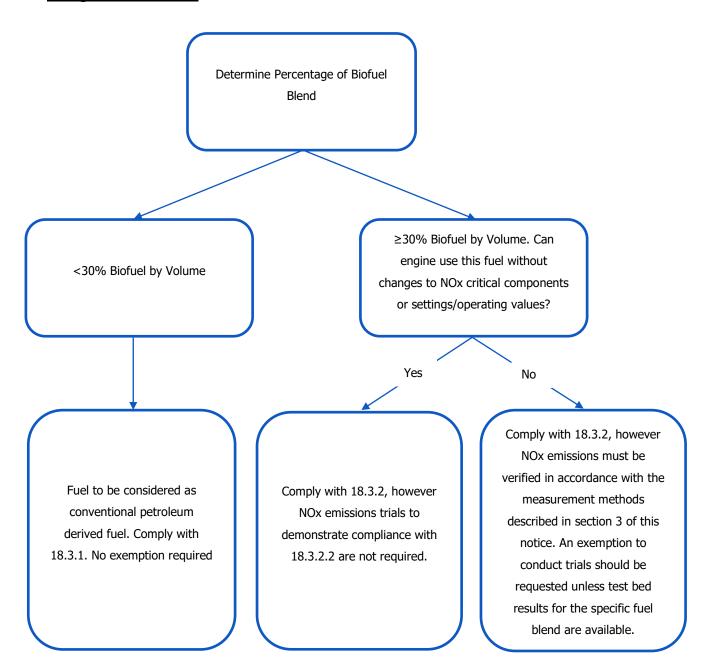
This may be done by verifying that the relevant engine does to exceed the applicable NOx emissions limit using one of the following methods:

- The onboard simplified measurement method in accordance with 6.3 of the NOx Technical Code, or
- The direct measurement and monitoring method in accordance with 6.4 of the NOx Technical Code, or
- By reference to relevant test bed testing

An allowance of 10% of the applicable emissions limit may be accepted.



# <u>Appendix 1 - Compliance with MARPOL Annex VI Regulation 18.3 for Engines</u> Using Biofuel Blends



Please note - The Isle of Man Ship Registry cannot give legal advice. Where this document provides guidance on the law it should not be regarded as definitive. The way the law applies to any particular case can vary according to circumstances - for example, from vessel to vessel. You should consider seeking independent legal advice if you are unsure of your own legal position.

