



**INTERTANKO**

**OCIMF and INTERTANKO are concerned that the entry into force of the 0.1% sulphur limit on fuel used by ships at berth in EU ports on 1 January 2010 will increase safety risks**

While OCIMF and INTERTANKO support EU and IMO efforts to curb ship emissions and to reduce the impact of shipping on climate change<sup>1</sup>, we are concerned by the entry into force on **1 January 2010** of the 0.1% sulphur limit on all marine fuels for all ships at berth (which includes “at anchor”) in EU ports, in accordance with the 2005 Marine Fuels Directive<sup>2</sup>.

This provision is not in line with the amended MARPOL Annex VI on the Prevention of Pollution from Ships, whose review was adopted by the IMO in October 2008 – with the support of EU Member States – and which instead provides for a 0.1% sulphur content limit in ECAs (e.g. the Baltic Sea and the North Sea) as of **1 January 2015**.

Until these provisions are aligned, **vessels of all types will be required to carry three grades of fuel oil** onboard which many **vessels cannot cope with** as they cannot segregate sufficient quantities of each fuel type (i.e. they do not have three separate tanks). This is especially true of tankers which generally have fewer fuel oil tanks than other types of vessel.

The multiplication of grades of fuel carried also increases the chance that there is incompatibility between fuels. This may trigger an excessive sludge generation (waxing) which would block fuel filters, leading to a loss of power if the auxiliary engines are starved of fuel. Loss of power during loading operations will **increase the risk of oil spill**.

OCIMF’s and INTERTANKO’s **particular safety** concern associated with the requirement of switching from the Heavy Fuel Oil to Marine Gasoil (MGO) in marine boilers is the **increased risk of furnace explosion** in the event of a flame failure. The increased risk results from two factors: a) the temperatures created in the furnace during operation and b) the properties of the MGO<sup>3</sup>.

Manufacturers recommend a number of generic modifications to minimise the risk when complying with requirements to switch from HFO to MGO in boilers. Modifications are required beyond the fuel system (e.g. pumps, steam atomizing system, purging sequence, flame supervision, software adjustments etc). Modifications for specific elements need to be provided and approved by Class<sup>4</sup>. Whilst a limited number of companies have undertaken modifications and training, the **majority of the shipping sector needs more lead time to adapt their vessels and to train their seafarers**.

In addition, maritime transport being by definition of a global nature, this difference in terms of regulatory framework concerning sulphur emissions will **jeopardize the competitiveness of the European fleet and ports at a time when the sector is already hard hit by the economic crisis**. Ship operators may need to circumvent European ports until ships are able to complete the necessary modifications as suggested by manufacturers and approved by Class.

From a commercial point of view, shipping will be impacted negatively, to such an extent that a **modal shift towards less environmentally friendly transport modes is expected**.

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<sup>1</sup> OCIMF and INTERTANKO have been actively participating in the policy debates about the review of the MARPOL Convention, Annex VI, both in European and international fora. Our representative contributed to the work of the Expert Study Group on air pollution commissioned by IMO Secretary General to undertake a comprehensive evaluation of the effects of the various proposals. We have also proposed a series of amendments, including on the proposed criteria and procedures for the simplified designation of Emission Control Areas.

<sup>2</sup> Directive 2005/33/EC of the European Parliament and of the Council of 6 July 2005 amending Directive 1999/32/EC as regards the sulphur content of marine fuels

<sup>3</sup> This is further explained in the Annex I to this document.

<sup>4</sup> Class refers to the Vessels’ Classification Society, who approve all major changes to the vessel and its systems.

Ships may not find supply of 0.1% sulphur content fuel in non-EU ports. When arriving at EU ports, compliance will assume a prompt supply system, including for ships “at anchor”. Such logistics and service systems do not exist. In fact, there is no guarantee there would be sufficient supply of 0.1% sulphur content fuel at any given time in EU ports either.

Finally, current market reports suggest that should the 0.1% sulphur limit on fuel used by ships at berth of EU ports enter into force on 1 January, this will trigger **a shortage of low sulphur products in Europe ultimately increasing the price of road diesel.**

**OCIMF and INTERTANKO therefore propose that the entry into force of the 0.1% sulphur limit on all marine fuels for all ships at berth in EU ports is postponed pending the review of the Marine Fuels Directive in 2010-11.**

OCIMF and INTERTANKO remain committed to making its expertise available to policy makers to enable an effective and sustainable solution which achieves the objective of reducing ship emissions, ensuring that shipping remains the greenest form of transport.

**The Oil Companies International Marine Forum (OCIMF) represents all the world’s major oil companies on marine safety and technical matters. The OCIMF mission is to be the foremost authority on the safe and environmentally responsible operation of oil tankers and terminals, promoting continuous improvement in standards of design and operation.**

**Oil Companies International Marine Forum**

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The International Association of Independent Tanker Owners (INTERTANKO) has been the voice of independent tanker owners since 1970. Current memberships comprises 270 companies with a combined fleet of some 3,100 tankers totaling 250 million dwt. INTERTANKO has a vision of a professional, efficient and respected industry, that is dedicated to achieving [safe transport](#), [cleaner seas](#) and [free competition](#).

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**Annex I:**  
**Technical considerations and safety concerns about changing over and burning Marine Gasoil (MGO) in boilers**

The most serious safety concern associated with the requirement of switching from the HFO to MGO in marine boilers is the increased risk of furnace explosion in the event of a flame failure. The increased risk results from two factors: a) the temperatures created in the furnace during operation and b) the properties of the MGO.

The ships do use MGO for cold flashing of the boilers which is an acceptable practice, since the furnace temperatures are much lower, and therefore the risks associated with generating fuel vapours and igniting them is much less. After the initial flashing with MGO, the boilers are fed with HFO. Given time, HFO will also vaporise, but the heavier fractions within it mean that the process will take much longer. In addition, the auto ignition temperature of HFO is higher than that of MGO meaning that the risk of explosion is much reduced.

The combination of MGO atomisation through the burner nozzle and the heat energy residing within the furnace tubes and refractory materials would cause the fuel to vaporise. This vaporisation can lead to a highly explosive vapour being present in the furnace. This can then be ignited from hot spots within the furnace, tubes and refractory material, by small smouldering ash on the furnace floor or through incorrect operation of the boiler. That any of these may produce an explosion has long been recognised (The UK MCA 'M' notice M.1083, reprinted in part in the MCA's Marine Information Note accompanying the introduction of this Directive, MIN 258, states that *'When using distillate fuels in burners designed for use mainly with heavier fuels these dangers are increased and in those conditions steam atomisation should not be used.'*).

During normal operation of the boiler the boiler burner will be adjusted to burn HFO. Changing the boiler to operate on MGO will affect the flame length by making it shorter, as the MGO will burn faster unless the burner is adjusted at each changeover. The effect of reducing the flame length is to reduce the surface area of the flame and therefore its radiant heat. For boilers operating towards their maximum firing rate, such as would be the case for vessels which discharge cargo by steam turbine driven pumps, this will limit their ability to operate cargo oil pumps towards the maximum rate and therefore slowdown the discharge. The required adjustment of the burner is not a simple procedure as it is an iterative process and can take some time to achieve good combustion of the new fuel.

Manufacturers recommend a number of modifications to minimise the risk when complying with requirements to switch from HFO to MGO in boilers. Modifications are required beyond the fuel system (e.g.: pumps, steam atomizing system, purging sequence, flame supervision, software adjustments etc). However, these modifications are presented in a generic manner. Manufacturers need to issue modifications for specific products and installations, including technical drawings. These modifications will require class approval.