



TECHNICAL CIRCULAR

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To: : **All Surveyors/Auditors**

Applicable to flag : **All Flags**

Subject: : **Switching Between High and Low Sulfur Fuels**

Reference: : **Emission Control Areas**

Switching Between High and Low Sulfur Fuels

Here are the best practices for changing between high and low sulphur fuels as vessels move in and out of Emission Control Areas.

Fuel Switching When Entering ECA Zones

ECA zones bring two key challenges. First, how to ensure that vessels have compliant fuel on-board.

And second, how to ensure fuel is managed and switched correctly so that when ships cross into an ECA they're consuming the right sulphur level fuel and not cross contaminating.

Key tips for fuel switchover:

To help avoid these issues there are five key fuel switching tips:

- Have a clear switchover procedure – It is important to ensure that the crew is familiar with the process. Ensure this is tested prior to entering crowded and restricted channels where there is a higher risk of grounding or collision.
- Outline the best time to switchover – Differing for each vessel, operators must allow sufficient time for the fuel system to be flushed of all non-compliant fuel before arriving at an ECA limit.
- Know the correct temperature and viscosity – The viscosities of heavy fuel oil (HFO), ECA fuels and marine gas oil (MGO) are very different. Major engine manufacturers typically recommend a maximum temperature change of 2°C per minute to help avoid thermal shock.
- Understand compatibility – In order to understand if fuels are compatible, an industry-standard spot test can be carried out on-board or a more thorough compatibility test can be requested from a reputable testing laboratory.

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- Choose the correct lubricant – Cylinder oils need to be sufficiently alkaline to neutralise any corrosive acidic sulphur in the fuel. However, when less sulphur is present, less sulphuric acid is produced. Too much alkalinity in the cylinder oil can lead to liner wear, while too little increases the risk of acid corrosion. When burning low-sulphur fuels in slow-speed engines, it is recommended that a lower base number lubricant is used.

REFERENCES: Entering ECA Zones, Courtesy of Exxon

ATTACHMENTS: No

Kindest Regards,
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