

IMO 2020: ready or not?

After last month's look at how the bunker industry is preparing for IMO 2020, Bally Duggal looks at what ship operators need to do to comply

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The IMO sulphur cap of 0.50% m/m (mass by mass) in marine fuel comes into force on 1 January 2020. The current global limit of 3.5% was set in 2008, with the intention that it would be lowered to 0.5% from 1 January 2020. While there was a clause allowing for extension of this deadline to 2025 if availability of compliant fuel was likely to be a problem, it was decided in October 2016 to maintain the 2020 deadline.

Since 1 January 2015, the sulphur limit for marine fuel oil within the Emission Control Areas (ECA) – North Sea, Baltic Sea and coastal areas in the US, Canada and US Caribbean – has been 0.10% m/m. While sulphur limits in non-ECA EU waters are in line with the IMO limits, the maximum sulphur limit in EU ports is set at 0.1% m/m.

China is taking a stepwise approach towards lower sulphur in marine fuel, starting with 0.5% m/m applied to ships sailing within 12 miles of its coastline from 2019. A further tightening to 0.1% sulphur for marine fuel is also under review.

SOx limit outside ECAs	SOx limit inside ECAs
< 4.50% m/m prior to 1 January 2012	< 1.50% m/m prior to 1 July 2010
< 3.50% m/m on and after 1 January 2012	< 1.00% m/m on and after 1 July 2010
< 0.50% m/m on and after 2020	< 0.10% on and after 1 January 2015

Implementation on board

Ship operators should develop implementation plans outlining how the ship is preparing to comply with the required sulphur content limit of 0.50% by 1 January 2020. Ship operators may be guided by the MEPC.1/Circ.878.

Key technical considerations should include:

- Ship tank configuration and fuel system;
- Cleaning of residual tanks for storage of low sulphur fuel;
- Heating requirements;
- Fuel treatment system;
- Precautions to prevent over heating of the low viscosity fuels.

The interpretation of 'fuel oil used on board' includes use in main and auxiliary engines and boilers.

Compliance and enforcement

IMO does not enforce the sulphur cap regulation, nor does it set any fines for non-compliance. It is the flag, port and coastal states who are responsible for the compliance of the regulation.

- Survey and Certification

Flag states will undertake onboard surveys in accordance with regulation 5 of MARPOL Annex VI to verify that the ship complies with the provisions to implement the 0.50% sulphur limit, and/or carries compliant fuel oils based on Bunker Delivery Notes (BDN).

Any oil analysis is to be carried out by an accredited laboratory in accordance with ISO 8754:2003.

- Control measures by port states

Port state will undertake appropriate measures to ensure compliance with the 0.50% sulphur limit. Port State Control authorities should consider the ship's implementation plan when verifying compliance.

- Supplier compliance

Designated authorities may take a sample and test fuel oils from bunker barges or shore bunker terminals. In case of non-compliance, such as incorrect BDN or a BDN without measurement of sulphur content, the designated authority should take corrective measures.

- Carriage ban on High Sulphur Fuel Oil (HSFO)

In April 2018, MEPC 72, IMO made amendments to MARPOL Annex VI to prohibit not just the use but also the carriage of fuels above 0.50% m/m sulphur unless ships have the requisite scrubbers installed. This amendment will enter into force on 1 March 2020.

Potential loss of insurance coverage

It is considered possible that failure to comply with the global sulphur cap could result in a vessel being deemed unseaworthy and so relieving the insurer of liability for any claim – although such claims have yet to be tested. IMO 2020 falls under MARPOL regulations, and a breach of MARPOL requirements could allow for a vessel's MARPOL certificate to be withdrawn or suspended by a flag state. This may result in insurance underwriters denying coverage on the basis that the breach alters the 'risk as a whole' of the vessel, regardless of any link with actual loss.

Compliance options for ship operators

- Burn compliant fuel such as Marine Gas Oil (MGO), and low sulphur fuel oil (LSFO). Blended fuel of less than 0.5% m/m sulphur is an option, but is known to have an unpredictable emission profile.
- Installation of a scrubber – an exhaust gas cleaning unit – on board will allow vessels to continue to burn HSFO, which is projected to be cheaper than compliant fuel. The payback period on scrubber installation is currently estimated at four years, and is expected to fall to two years based on the current diesel-HSFO forward curve.
- LNG based ships are compliant with IMO 2020 regulations. Newbuildings are more likely to choose LNG as bunker fuel than existing ships as retrofitting is very expensive and the payback period is not attractive. However, the lack of LNG bunkering infrastructure means LNG is not the best option over the medium term.
- IMO provides a system whereby ships can seek waivers in a situation where compliant fuel is not available. Ships will have to provide documentary evidence of attempts to achieve compliance before asking for a waiver.

Given the challenges discussed above, ship owners and technical operators and their commercial partners will need to:

- Assess and address the additional costs required for compliance;
- Analyse compliant fuel availability on the trade routes and test compliant fuels;
- Review existing fuel management plans;
- Ensure an efficient emissions monitoring procedure is in place. 