Sulphur emissions in the Baltic Sea: two years on

We are grateful to Gudmund Bernitz and Alex Kemp of Holman Fenwick Willan for this article, first published on the HFW website.

As many readers will know, since 1 January 2015 vessels operating in the Baltic Sea have had to comply with sulphur oxide (SOx) emissions limits. As an Emissions Control Area (ECA) along with the North Sea, North American coastline and Caribbean, vessels operating in the Baltic Sea are obliged to burn bunker fuel with a maximum of 0.10% m/m SOx content under regulation 14 of the IMO’s MARPOL Annex VI.

With two years having passed since the SOx emissions limits became effective, we provide this update on how the implementation and enforcement of the regulations has played out in the Baltic Sea.

Compliance

On the face of it, it would seem that compliance with SOx emissions limits in the Baltic Sea has been achieved. According to a report by the Finnish Meteorological Institute in May 2016, SOx emissions in the Baltic Sea had fallen 66% in comparison with 2014. Research by Germany’s Nature and Biodiversity Conservation Union also points to significant reductions in SOx emissions, with several countries seeing sulphur dioxide concentrations decrease by 50% or more.

However, concerns have been raised in various quarters about inefficient and/or inconsistent monitoring and enforcement across the Baltic Sea. For example, it has been pointed out that many compliance checks are made near ports, meaning that unreported SOx emissions violations at sea are likely. Others have commented that uneven enforcement by different port states may allow operators to violate ECA rules. The “sniffer” technology deployed by Denmark on drones and the Great Belt Bridge is well known, detecting 12 shipping lines in 2016 using banned high SOx fuel. Emissions monitoring and enforcement in other parts of the Baltic Sea may not be so efficient, meaning vessels could potentially burn high SOx fuel in those areas.

Improving monitoring and enforcement

In light of these alleged limitations, steps are being taken to improve enforcement across the Baltic Sea. The CompMon Project, co-financed by the European Union and led by Danish, Finnish, Belgian and Dutch institutions, is pursuing a range of initiatives to improve airborne monitoring of MARPOL Annex VI regulations in both the Baltic Sea and North Sea, with the aim of producing operational standards to be used across ECA states. A Belgian campaign in the North Sea from August to November 2016 demonstrates the potential effectiveness of airborne monitoring of SOx emissions. Over the campaign, SOx fuel content measurements were taken from the exhaust trails of over 1,500 ships, with around 160 non-compliant ships observed.

Another development of interest is the Concentrated Inspection Campaign (CIC) on SOx emissions compliance to be carried out in 2018 by the Paris MoU on Port State control, of which all the Baltic Sea states are members. A result of a joint Danish and Dutch proposal, the CIC will mean that vessels visiting any Baltic Sea port will have their compliance with the SOx emissions regulations closely scrutinised.

Finally, the support for robust enforcement of SOx emissions regulations has not only come from governments. The Trident Alliance trade group, whose members include Maersk Line, Stena and Cargill, are also advocating fair and transparent enforcement of SOx emissions regulations, using their reputations and resources to raise awareness of the issue.

Future considerations

It appears that whilst progress has been made in reducing sulphur emissions in the Baltic Sea, there is still work to be done in achieving efficient and consistent monitoring and enforcement. With the future introduction of nitrogen oxide emissions limits in the region looking all but certain, this issue will only become more significant.

Looking broader, with a global SOx cap of 0.50% m/m becoming effective from 1 January 2020, the experience in the Baltic Sea and other ECAs will become increasingly relevant to the shipping market as a whole. Whilst the market will have to navigate the logistical and financial challenges of installing scrubbers to their fleets and the increased cost of regulation-compliant marine gas oil, the challenge of effective and fair enforcement of any cap will require significant cooperation.

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