

## International Maritime Organization (IMO) MARPOL Convention Annex VI: Preparing for Change in 2020

As tightening emission control standards for the global shipping industry go into effect in 2020, experts predict significant market disruptions across the energy industry. Industry players can expect low-sulfur price premiums and high-sulfur price discounts to swell as refiners adapt to changing demand centers. Lubricant base oils and on-road transportation fuels may experience supply and price volatility. The market should anticipate potential impacts, engage key stakeholders and manage business plans accordingly.

### What is the IMO?

Established by the United Nations as a specialized agency in 1948, the International Maritime Organization (IMO) maintains responsibility for regulating the global shipping industry. IMO promotes the highest practicable standards of maritime safety and security, efficiency of navigation, and prevention and control of pollution from ships. Headquartered in London, the IMO maintains 174 Member States and three Associate Members.<sup>1</sup> Each Member State participates in regional enforcement of IMO Conventions via their local enforcement agencies. Within United States (U.S.) territories, the Environmental Protection Agency (EPA) oversees matters of policy and permitting, while the U.S. Coast Guard assists with enforcement via terminal and vessel inspections.

### What is MARPOL?

Formally known as the International Convention for the Prevention of Pollution from Ships, the MARPOL Convention entered into force in 1983. The Convention includes six technical Annexes, or special regulations, targeting pollution of marine environments by ships from routine operations or accidental causes:<sup>2</sup>

*Annex I – Regulations for the Prevention of Pollution by Oil (first enforced 1983)* – details prevention of pollution by oil from operational measures and accidental discharges; a 1992 amendment introduced mandatory double hull tanker construction.

*Annex II – Regulations for the Control of Pollution by Noxious Liquid Substances in Bulk (first enforced 1983)* – details discharge criteria for >250 substances and mandates no discharges within 12 miles of land.

*Annex III – Prevention of Pollution by Harmful Substances Carried by Sea in Packaged Form (first enforced 1992)* – requires detailed standards on packing, marking, labeling, documentation, stowage, quantity limitations, exceptions and notifications.

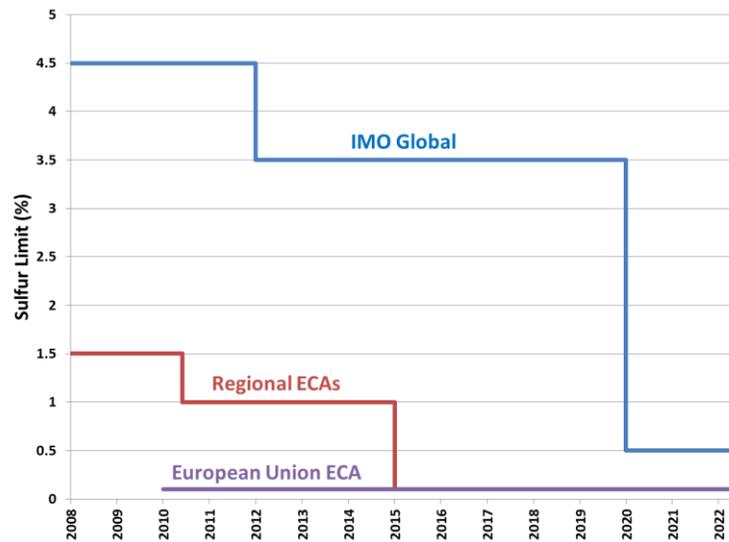
*Annex IV – Prevention of Pollution by Sewage from Ships (first enforced 2003)* – outlines requirements to control pollution of the sea by sewage.

*Annex V – Prevention of Pollution by Garbage from Ships (first enforced 1988)* – details types of garbage and specifies distance from land and manner of disposal; complete ban on disposing all forms of plastic into the sea.

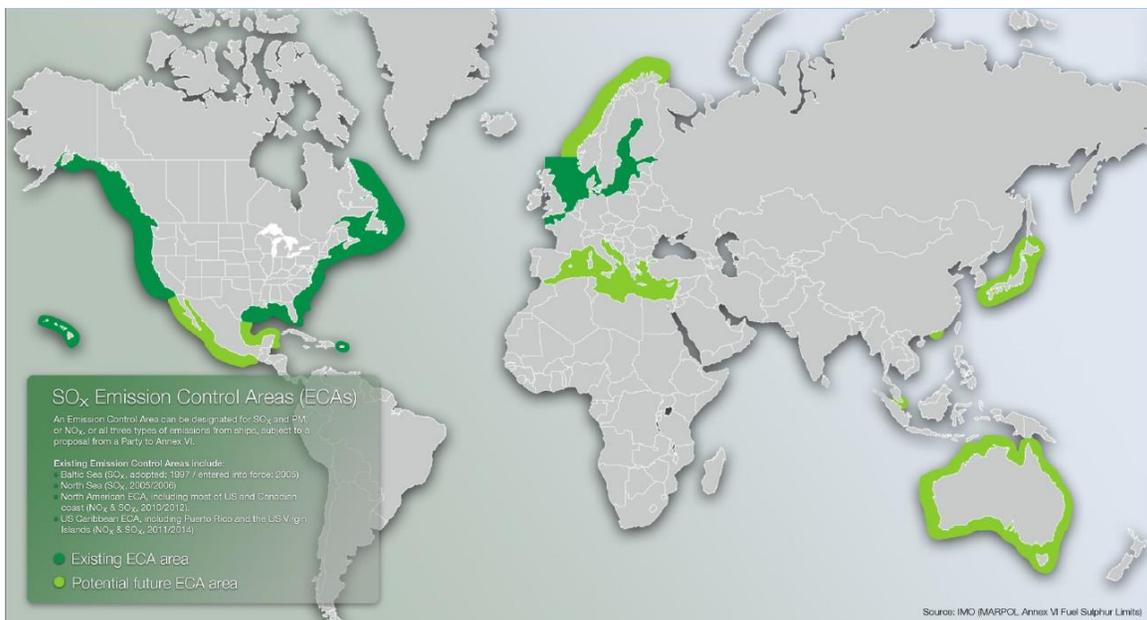
*Annex VI – Prevention of Air Pollution from Ships (first enforced 2005)* – limits sulfur oxide and nitrogen oxide emissions from ship exhausts and prohibits ozone depleting substance emission; limits max sulfur content of marine fuels for vessels not equipped with exhaust treatment systems (scrubbers).

**What changes in 2020?**

Beginning January 1, 2020, ships not equipped with exhaust scrubbers must use fuel oils with a sulfur content of no more than 0.5%, compared to the current limit of 3.5% when operating outside of four previously established Emission Control Areas (ECAs) that mandate fuel oil sulfur content less than 0.1%: the Baltic Sea, the North Sea, North America (including coastal territories of the United States and Canada) and the United States Caribbean Sea area (including coastal territories of Puerto Rico and the United States Virgin Islands). **Figure 1** illustrates the IMO global and ECA fuel oil sulfur limits, 2008-2022. **Figure 2** shows current and potential future ECA locations.



**Figure 1.** IMO global and ECA fuel oil sulfur limits, 2008-2022  
Source: IMO



**Figure 2.** Current and Potential Emission Control Areas  
Source: IMO (MARPOL ANNEX VI Fuel Sulphur Limits)