

Key Provisions of MARPOL ANNEX VI focusing on those Relevant to Domestic Ship

MARPOL Annex VI (International Convention for the Prevention of Pollution from Ships, Annex VI) is an important international maritime regulation that addresses air pollution from ships. While it primarily targets international shipping, it also has implications for domestic ships, especially those operating in coastal or ecologically sensitive areas. Here are the key provisions of MARPOL Annex VI relevant to domestic ships:

1. Sulfur Oxide (SO_x) Emissions Limits:

- Annex VI sets limits on the sulfur content of fuels used by ships. There are different requirements depending on the location:
 - In designated Sulfur Emission Control Areas (SECAs), including coastal regions in some countries, the sulfur content of fuel used by ships is limited to 0.10% m/m (mass/mass).
 - Outside SECAs and at sea, the sulfur content limit is 0.50% m/m.
 - Alternatively, ships can use exhaust gas cleaning systems (scrubbers) to reduce SO_x emissions and continue using higher-sulfur fuels.

2. Nitrogen Oxide (NO_x) Emission Limits:

- Annex VI establishes Tier I and Tier II NO_x emission limits for engines based on their date of certification and power output.
- More stringent Tier III NO_x emission limits apply to ships operating in designated North American and U.S. Caribbean Emission Control Areas, which affect domestic vessels in these regions.

3. Particulate Matter (PM) Emission Limits:

- Annex VI sets limits on particulate matter emissions from marine diesel engines.
- Compliance with these limits is generally achieved by using cleaner fuels or installing particulate filters.

4. Energy Efficiency Measures:

- Annex VI encourages the improvement of the energy efficiency of ships to reduce greenhouse gas (GHG) emissions.
- For domestic ships, this may involve implementing measures to enhance fuel efficiency and reduce emissions.

5. Record-Keeping and Reporting:

- Ship operators must maintain records of fuel consumption, emissions, and other relevant data.
- Domestic ships, depending on their size and location, may be required to report this information to the relevant national authorities.

6. Fuel Availability and Fuel Oil Non-Availability Reports (FONARs):

- Annex VI recognizes that compliant low-sulfur fuels may not always be available.
- In such cases, ship operators must submit FONARs to document the unavailability of compliant fuels and demonstrate that they have taken appropriate measures to seek compliant alternatives.

7. Port State Control and Enforcement:

- Coastal states are responsible for enforcing the provisions of MARPOL Annex VI within their territorial waters.
- Domestic ships operating within or outside their country's waters must comply with the relevant sulfur limits and emissions regulations.

8. Exemptions and Special Areas:

- Annex VI provides provisions for exemptions and the designation of Special Areas with stricter emissions requirements. Domestic ships operating in these areas are subject to additional regulations.

9. Amendments and Updates:

- Annex VI is subject to periodic amendments to strengthen emission standards and improve environmental protection.
- Domestic ship owners should stay informed about any changes in regulations that may affect their operations.

MARPOL Annex VI Compliance often involves using low-sulfur fuels, adopting emission reduction technologies, and keeping detailed records of fuel consumption and emissions.