

Emissions - What are the intentions

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Objectives

- Reducing sulphur oxides (SO_x):
 - Acid rain
 - Health issues in coastal waters
- Reducing nitrogen oxides (NO_x):
 - Health issues in coastal waters
- Reducing green house gases overall (GHG) to limit:
 - Global warming
 - Climate change
 - Extreme weather events

Principal methods

- Reducing sulphur oxides (SO_x):
 - Zero or Low sulphur fuels
 - Exhaust treatment (EGCS) with conventional fuels
- Reducing nitrogen oxides (NO_x):
 - Fuel chemistry
 - Engine design (Including Exhaust gas treatment)
- Reducing green house gasses overall (GHG):
 - Reducing fuel consumption
 - Moving to carbon free fuel sources
 - Carbon capture and storage (CCS)
 - Looking at full “Well to Wake” or “Life cycle” emissions

What are the current IMO targets.

- Maximum sulphur content 0.5% worldwide (in force now)
- Maximum sulphur content 0.1% in ECA's (in force now)
- All ships in an ECA to meet NOx tier III (in force in some ECA's now)
- Energy efficiency Index - EEDI (all new ships since 2016)
- Energy efficiency Index – EEXI (all existing ships from 2023)
- Carbon Intensity Indicator – CII (all ships from 2023)
- IMO intends to adopt its revised GHG strategy at MEPC 80 in mid 2023. CII reduction target of 40% by 2030 and 70% by 2050.

Other regulations coming

- The IMO committee MEPC 78 considered and approved a proposal for a Sulphur Emission Control Area (SECA) to be established in the Mediterranean Sea. The proposal is subject for adoption at MEPC 79 in December of this year and is expected to take effect from 1 July 2025.
- On 14 July 2021, the European Commission adopted “Fit for 55”, a set of policy proposals. In particular, “Fit for 55” aims to reduce greenhouse gas emissions (GHG) by at least 55 percent by 2030.
- In this session we will examine these proposals in depth.