



IMO's 2020 Low Sulphur Bunker Requirements – Impact on Vessel Operations and Potential Collateral Impact on Insurance and Cargo Operations

a presentation to the Marine Insurance and Cargo
Committees

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Speaker

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What?

MARPOL 73/78 – Annex VI

Reduction in permitted sulfur content



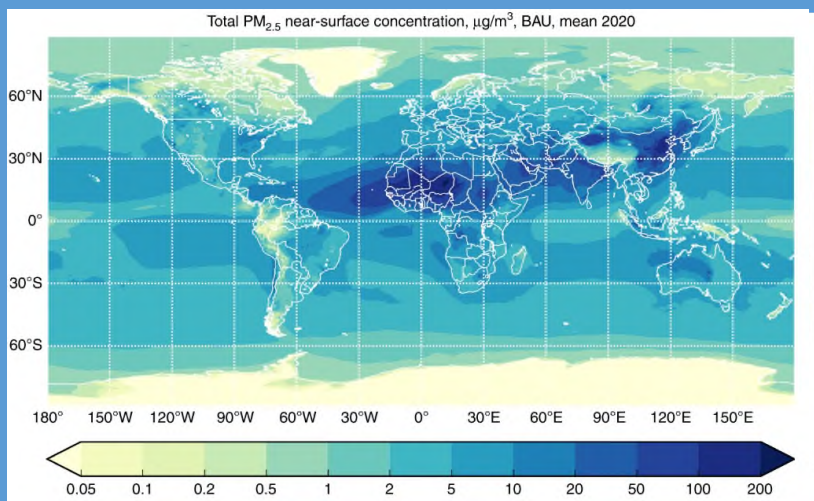
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Why?

- Increased scrutiny of polluters, includes the shipping industry.
 - IMO goal to halve shipping emissions by 2050.
 - 796 million tons of CO₂ in 2012. (2.2% of total emissions).
 - Environmental impacts
 - Health impacts

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Particulate Emissions



<https://www.nature.com/articles/s41467-017-02774-9>

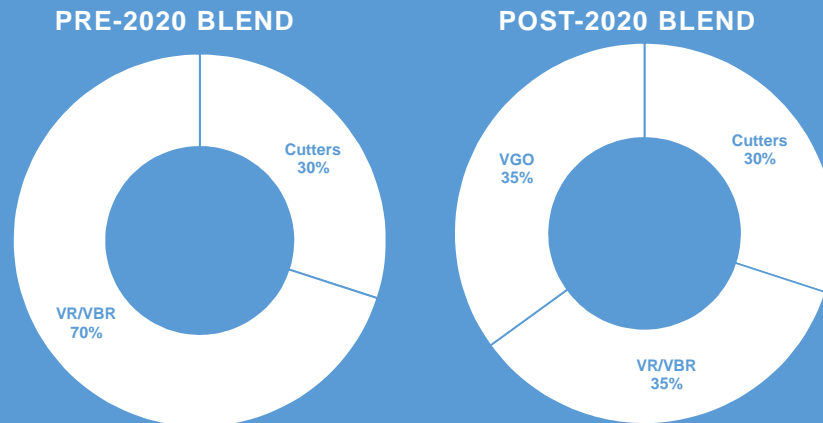
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When?



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Changing Paradigm



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Compliance

Each compliance mechanism poses unique risks to vessel owners and operators.

- Low Sulphur fuel
- Installing exhaust cleaning system (scrubber)
- Conversion to alternative fuels (ex. LNG)

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Residual and Distillate

- Low sulfur bunkers are proprietary and patented.
- Cost is unknown. Costs expected to exceed \$1000 per ton.
 - Maersk estimates its fuel bill will increase by \$2 Billion USD and has already implemented a fuel surcharge effective Jan 1, 2019.
- Compatibility issues.

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Properties of Fuel Oil

- Stability
- Compatibility
- Viscosity *
- Sulfur Content
- Acid Number
- Flashpoint
- Cat Fines
- Viscosity
- Cold Flow
- FAME Content

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Scrubber

- 15% of the global fleet by tonnage to be scrubber fitted end of 2020.
- Cost challenges
- Different technologies
- Waste disposal

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LNG

World Premiere: Launching of the World's Largest LNG-Powered Containership and Future CMA CGM Group Flagship



Source: Tote Maritime

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Biofuels

- No large scale implementation
- Global testing
- No global availability

Slow Steaming

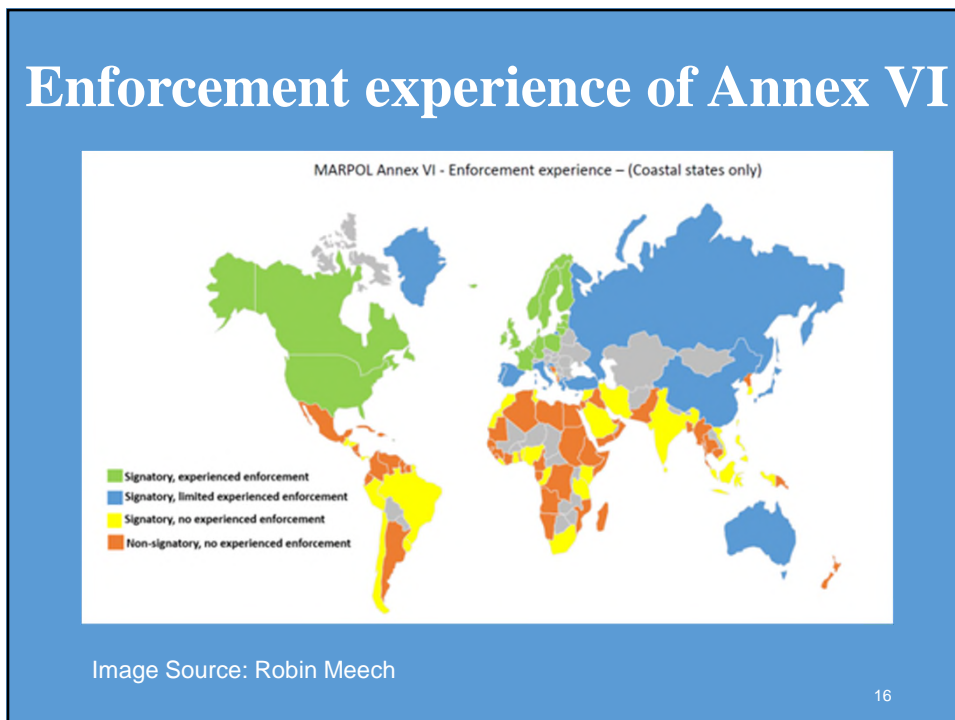
- Alright a widely used compliance strategy within ECA
- Unknown effect
- Likely will be used in conjunction with other strategies

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Documentation Requirements

- Bunker Delivery Note
 - MARPOL Annex VI, MERC. 176 (58)
 - 40 CFR SS 1043.70 and 1043.100
 - Issued by seller/bunker barge to document fuel information
 - Three year retention
- Sample log
 - Bunker samples (min 400 ml)
 - 4 Cubitainer with tamper proof seal
 - Sample retention required for 12 months

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Port State Control

- US
 - Business as usual
 - \$25,000 per day fines
 - Detention of vessel

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Flag State

- All of the top 10 flag states by tonnage have ratified Marpol Annex VI.
- Approach to compliance unknown and likely to vary.
 - Fines
 - Vessel downtime/loss of earnings
 - Reputational risk

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Unavailability of Fuel

- Vessel can use non compliant fuel.
- Fuel Oil Non-Availability Report (FONAR)
 - Issued to Captain of the Port, Flag State
- Non-availability is not a waiver of compliance

- Market research shows there will be adequate compliant fuel supplies.
 - Prices will vary greatly.
 - Compatibility of fuel will not be guaranteed.

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Liability

- Likely to rest with charterer.
 - Dependent on terms
- Test methods
 - ASTM D4740 (1 hour)
 - Total Sediment Potential (24 hours)

- 10307-2 Procedure A (thermal ageing)

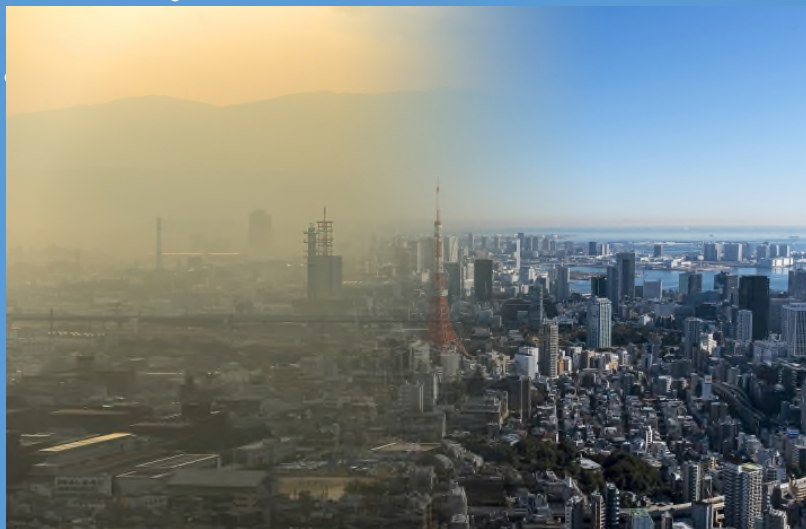
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Insurance Implications

- P&I
- FDD
- Hull
- Cargo Interests
 - GA Claims
 - Voyage delays
 - Increased freight rates

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Thank you.



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