



COMPASS

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Reorganisation ENV / CLIM

Where to find air emissions shipping?

Before: DG ENV C3 Clean Air and Transport

Now: DG ENV C3 Industrial emissions (SO₂ NO_x)

**DG CLIM B2 International Carbon Market,
Aviation and Maritime (GHG)**

DG CLIM C2 Transport and Ozone

European Commission:



Commission planning

- **Proposal to amend Directive 1999/32/EC on sulphur in fuel end 2010 (especially to implement amendments to MARPOL Annex VI).**
- **No decision yet on EU measures to reduce greenhouse gas; potentially end 2011 – depending on IMO progress.**
- **GHG emissions from HDV – under consideration**



MARPOL Annex VI (1)

- **IMO MEPC 57 agreed in April 2008 to amend MARPOL Annex VI, adopted 10 October 2008, entry into force 1 July 2010**
 - **NO_x emissions (new ships only!):**
 - 15-22% reduction as of 2011
 - 80% reduction (regional basis) as of 2016
 - **NO_x emissions ships built between 1990 – 2000: upgrade to tier 1 *if available***
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MARPOL Annex VI (2)

Sulphur limits

- **1 July 2010: In SECAs from 1.5 to 1.00%**
- **1 January 2012: Global cap from 4.5 to 3.50%**
- **1 January 2015: In SECAs from 1.00 to 0.10%**
- **2020: Global cap from 3.50% to 0.50%**

- **In all cases: tech. equivalent allowed**
- **2020 standard: review 2018 – 5 y delay**

- **(Trucks now / inland ship. 2011: 0.001%)**



Relevant EC Studies

1. **Impact on Refineries/fuel cost (finished)**
2. **Costs/benefits of including IMO amendments (finished)**
3. **Study on potential mode shift related to cost development SSS relative to road transport (SKEMA) (almost finished)**
4. **COMPASS: (June 2010)**
5. **Study to assess potential EU measures to reduce maritime GHG emissions (CE Delft) January 2010**

(6, 7 Remote sensing; NO_x/SO₂ trading)



COMPASS

- **Build on other studies (refineries, GHG, SKEMA)**
 - **Add other issues relevant for the competitiveness position of SSS**
 - **Add costs of potential measures to reduce greenhouse gas emissions (IMO and/or EU measures)**
 - **Add impact on deep sea shipping (of low value goods)**
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COMPASS outputs

- **Relative cost structures**
- **Likely relative evolution of costs**
- **Scenarios**
- **Risk of mode shift (routes, products..)**
- **Which vessels / services**
- **Changes in trade**
- **Scenarios**



Options and considerations

→ Case for NO_x Emission Control Areas?

If yes, how to move forward?

→ Case for SO_x ECAs in the Mediterranean or in the Black Sea?

If yes, how to move forward?

→ Case for lower S levels for fuel oil and gas oil used in land based installations?



Further information

<http://ec.europa.eu/environment/air/transport/ships.htm>
(be aware, this address will change...)

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Thank you for your attention!