

Sulphur content of marine fuels

2002/0259(COD) - 15/07/2011 - Follow-up document

The Commission presents a Communication reviewing the implementation of Directive 1999/32/EC related to the sulphur content of certain liquid fuels and on further pollutant mission reduction from maritime transport. It reports on progress made at the International Maritime Organization (IMO) since 2005 to reduce emissions of air pollutants, as well as on follow-up actions at the EU-level as proposed by the Commission, on the basis of the experience gained with the implementation of the Directive since 2005 as called for by Parliament and Council. It discusses the rationale to align the relevant EU legislation with the latest IMO rules, the 2008 amendment to MARPOL Annex VI setting new standards for lower sulphur fuels globally, but also more stringent limits in the established SO_x Emission Control Areas. Furthermore, it presents a set of accompanying measures to promote and facilitate compliance. These measures include equivalent methods, allowing the shipping industry to achieve compliance in a technology-neutral manner.

Progress at the IMO on air pollution: it is recalled that pollution from maritime transport is regulated by Annex VI of the Convention for the Prevention of Marine Pollution from Ships (MARPOL 73/78) governed by the International Maritime Organization (IMO). Until 2008, the Convention allowed the use of marine fuels with a sulphur content of up to 4.5% in all sea areas with the exception of specified sulphur emission control areas (SECAs) where the maximum sulphur content was restricted to 1.5%. Following international calls for further action the IMO concluded a significant revision of the MARPOL Annex VI at the end of 2008, and prescribed a stepwise reduction of the sulphur content of fuels used in all seas to 0.50% as of 2020 and to 0.10% in SECAs as of January 2015.

The new provisions agreed in 2008 were a major step forward and emissions of SO₂ from maritime transport are expected to decrease by more than 90% in SECAs and by more than 75% in other sea areas bordering the EU. Emissions of particulate matter (PM_{2.5}) are predicted to decrease by more than 60% and 75% in SECAs and other sea areas respectively. The associated benefits of the 2008 MARPOL agreement are estimated to range at least between EUR 15 to EUR 34 billion per annum in 2020 due to improved health and reduced mortality in the EU. The costs of implementing the revision range from EUR 2.6 to EUR 11 billion.

Revision of Directive 1999/32/EC: following the IMO MARPOL Annex VI amendment agreed at the end of 2008, there are significant discrepancies in the Directive that need to be addressed, and a full alignment of the Directive with the new IMO provisions related to the sulphur content of fuels is proposed.

This includes the **incorporation of the stricter sulphur standards applying in SECAs and other sea areas** and the adaptation of EU rules to the IMO provisions on alternative compliance methods. Such alternative or equivalent measures will allow operators to choose the most appropriate solution, including the use of exhaust gas cleaning systems or alternative fuels such as LNG, provided they deliver the same emission reduction benefits compared to low-sulphur marine fuels. It will also boost innovation in green technologies as advocated by the EU 2020 strategy whilst enabling ship operators to reduce compliance costs by up to 90%

In addition, certain targeted adjustments to the EU monitoring and enforcement regimes are proposed given the increased risks for circumventing the tightened international rules on the sulphur content of fuels. Harmonised and strengthened EU monitoring and enforcement actions will help deliver important health and environmental benefits as well as contribute to the establishment of level playing field and fair competition internationally.

Furthermore, and based on the outcome of the impact assessment, the Commission proposes to maintain stricter standards for passenger ships operating outside SECAs to maintain the link between the stricter fuel standards in SECAs (now requiring maximum sulphur content of marine fuel of 1.5% and from 2015 - 0.1%) and those applying for passenger ships on a regular service outside SECAs (at the moment 1.5%). The introduction of the stricter fuel standard for passenger ships would be delayed by 5 years in comparison with SECAs in order to avoid potential problems with fuel availability.

Accompanying measures: making use of the additional technology-based compliance provided by the revised Annex VI of MARPOL, and subsequently by the revised Directive, such as scrubbers, alternative fuels (LNG) and shore side electricity, would require capital investments by the private as well public sector. Such investments may need to be incentivised notably when a wider set of sustainable shipping objectives going beyond compliance with Marpol Annex VI are being pursued. A number of short-term accompanying measures were identified to assist the sector:

- the TEN-T Programme will continue to support projects of wider benefits e.g. addressing environmental issues, such as implementation projects, studies and pilot actions introducing new technologies, innovative infrastructure, and facilities supporting the deployment of LNG;
- under the Marco Polo II Programme, priority is given to projects aiming at the implementation and use of innovative technologies or operational practices that significantly reduce air emissions from ships, such as the use of low sulphur fuels, alternative fuels like LNG, and abatement technologies;
- investments targeting research, development, and innovation to reduce emissions from ships and to promote energy efficiency could be financed through the European Clean Transport Facility (ECTF), a European Investment Bank (EIB) dedicated lending programme;
- the use of Member States' funds could also be envisaged to support measures such as retro-fitting air pollution control devices or marine engines on vessels ahead of the entry into force of the new standards, or developing onshore infrastructure for the treatment of residues or marine-LNG refuelling stations.

Regarding the formulation of **medium and longer-term accompanying measures**, the Commission is developing a policy approach exploring hard and soft regulatory measures, green ship technology and alternative fuels, adequate green infrastructure, economic and funding instruments, research and innovation, and international cooperation. These measures will be put in place following the adoption of the [White Paper outlining a Roadmap to a Single European Transport Area](#), and the new TEN-T Policy and Guidelines.

Next steps: the Commission has made an initial assessment of additional measures to reduce emissions of SO_x, particulate matter, and NO_x, for example through extended SECAs and new NO_x emission control areas (NECAs). These showed promising benefit/cost ratios but the Commission is not in a position to make formal proposals to establish additional emission control areas, which may only be established in EU law once they have been agreed internationally by the IMO following the procedures specified in the MARPOL Convention. Moreover, the Commission does not have the competence to submit proposals to the IMO and so the current Communication and legislative proposal restricts itself to the previously established emissions control areas and the 2008 amendment of Annex VI of the MARPOL Convention. The Commission notes with appreciation, however, that certain Member States are in the process of requesting the designation of NECAs, and it will work closely with those and other Member States, as part of the ongoing review of the [EU Thematic Strategy on Air Pollution](#) due in 2013.