INTERNATIONAL MARITIME ORGANIZATION

IMO

E

MARINE ENVIRONMENT PROTECTION COMMITTEE
57th session
Agenda item 4

MEPC 57/4/48
22 February 2008
Original: ENGLISH

PREVENTION OF AIR POLLUTION FROM SHIPS

The Annex VI revision process: comment on MEPC 57/4/23

Submitted by the International Petroleum Industry Environmental Conservation Association (IPIECA)

SUMMARY

Executive summary:	In MEPC 57/4/26, IPIECA, on behalf of the refining community, submitted a consensus paper commenting on the achievability of changes to sulphur levels in marine fuels. Following publication of BLG 12/WP.6/Add.1 and MEPC 57/4/23, which sets out revised options for consideration at MEPC 57, IPIECA is providing additional information on both the achievability of reductions in the global cap and the need to maintain a 'dual-fuel' case for marine fuels. The submission highlights the need for an ongoing, scientifically valid process to evaluate and agree any further reductions, and draws examples from a partnership process for road transport fuels that has enjoyed considerable success in another UN system organization.
Strategic direction:	7.3
High-level action:	7.3.1
Planned output:	7.3.1.1
Action to be taken:	Paragraph 10
Related documents:	MEPC 56/4; MEPC 57/4/26 and MEPC 57/4/23

Introduction

1 This document provides comments on MEPC 57/4/23 and is submitted in accordance with paragraph 4.10.5 of the Committees' Guidelines (MSC-MEPC.1/Circ.1) and the relaxed deadline for comments documents on the air pollution item to MEPC 57 with prior authorization of the MEPC Chairman following consultations with the Secretariat in line with paragraph 4.12 of the Committees' Guidelines.

2 IPIECA has reviewed the revised options given in document MEPC 57/4/23, and offers comment based on ability to supply and environmental impact, as well as highlighting an ongoing scientific debate around the justification for a 'dual fuel' case for marine fuels. IPIECA also propose a partnership process to establish a scientifically valid, achievable, and environmentally beneficial route to the ongoing revision of global marine emission regulations.

Changes to the levels of sulphur permitted in the global cap

3 There are three options proposed in document MEPC 57/4/23 and, *inter alia,* they differ with respect to proposed modifications to the permitted maximum sulphur content of marine fuels (i.e., the global cap), ranging from reducing the existing level of 4.5%S to 3.0%S, or even 0.5%S. IPIECA again stress that the production of lower sulphur fuels requires the expenditure of additional energy, leading to increased lifecycle CO_2 emissions (i.e. even when improved shipping emissions are accounted for). IPIECA's position remains that the use of lower sulphur fuels that have been produced with an associated CO_2 burden should be targeted **only** in areas (such as SECAs) where the local benefits would justify this global penalty.

4 In commenting on MEPC 57/4/23, IPIECA notes the conclusions of MEPC 56/4, submitted by the Secretariat, where it is clear from the analysis of the distribution of sulphur in fuels that reducing the global cap to 3.5%S would affect 15% of the global residual marine fuel market, whereas a reduction to 3.0%S would affect 35% of the market. In MEPC 57/4/26, IPIECA explained that, while it is not possible to predict refiner behaviour with any certainty, it is likely that other outlets would be found for the residual fuel, which will then no longer be available to the marine market. Despite this, IPIECA's analysis indicates that it should be possible to accommodate a reduction in the global cap to 3.5%S, without significant market disruption, by 2012. A reduction to 3.0%S – affecting 35% of the residual marine fuels market – could not be contemplated in the short to medium term: not only would severe market disruption inevitably occur, it is unlikely to be accompanied by any significant health improvements (MEPC 57/INF.6, page 215).

Changes to the levels of sulphur permitted in SECAs

5 IPIECA supports the adoption of a 1.0% sulphur limit within SECAs by 2012. This is the option least likely to cause disruption to the marine fuel supply chain, as it can be achieved through the use of both residual and distillate fuel. Again referring to page 215 of MEPC 57/INF.6, IPIECA would expect this step to yield significant air quality and health benefits.

The need to place the revision process on an independent, scientific basis

6 IPIECA draws the Committee's attention to a very recent peer-reviewed paper by Norwegian scientists on time-integrated climate effects of different modes of transport[1]. This publication, which was not available at the time of the IMO expert group deliberations, and which has triggered significant debate within the scientific community, speaks to paragraph 127 of the expert group report. The Norwegian paper suggests that, in contrast to other forms of transport, shipping creates a beneficial cooling effect, partly due to the emissions of sulphate aerosol precursors, and that this effect remains even after several centuries.

[1] http://www.pnas.org/cgi/content/abstract/0702958104v1.

7 Although, along with other studies[2][3][4], the Norwegian paper appears to provide additional evidence for maintaining the open-sea residual case, IPIECA remains concerned over the release of conflicting scientific arguments[5]. In IPIECA's views, the scientific debate surrounding this document, as well as the uncertainty surrounding other issues (including air quality modelling, the deposition of open water emissions on land, and the effectiveness of SECAs) highlights exactly why further steps in the Annex VI revision process need to be placed in an environment of ongoing constructive and scientific debate between stakeholders. The following proposal addresses that perceived need.

A proposal: the Partnership for Clean Fuels and Shipping

8 IPIECA understands the desire of many stakeholders for an early change to Annex VI, but notes that detailed analysis on improvements in air quality resulting from the introduction of existing SECAs is not yet available; the initial reductions proposed above cannot therefore be said to be based on sound science. In IPIECA's opinion, further reductions should only be made on a scientifically justified basis. In MEPC 57/4/26, IPIECA urges IMO to set up an ongoing monitoring and modelling program to justify further changes to the marine fuel sulphur regime. IPIECA urges the Committee to consider the incorporation of such a process in a multistakeholder partnership.

9 IPIECA draws the attention of the Committee to a parallel process on global road transport fuel quality which was conceived following the 2002 World Summit on Sustainable Development. The United Nations Partnership for Clean Fuels and Vehicles (PCFV)[6], hosted by UNEP, and funded independently of the UN, has drawn together governments (from both developed and developing nations) the refining industry, the auto, truck, and emission control manufacturers, NGOs, donor and regulatory agencies (e.g., the US EPA) in a partnership process to promote sensible, achievable and cost-effective changes in global fuel quality. As a result of this partnership, co-operative agreements resulted in the elimination of leaded gasoline in the whole of Sub-Saharan Africa in just four years, a process that took twenty years in North America. Similar work on gasoline and diesel sulphur levels is now underway, not just in Africa but around the world. IPIECA suggests that a similar initiative could benefit the current process in respect of marine fuels.

Action requested of the Committee

10 The Committee is invited to consider the information provided in this document and to select an option, or combination of options for reduction of sulphur emissions that are practical, achievable, and give meaningful environmental benefit. The Committee is further invited to consider the formation of a multistakeholder partnership as described in paragraph 8 of this submission.

---

2 *Global model simulations of the impact of ocean-going ships on aerosols, clouds, and the radiation budget, Lauer et al, Atmos. Chem. Phys. Discuss., 7, 9419–9464, 2007.*

3 Aviation and maritime transport in a post 2012 climate policy regime, Faber *et al*, CE Delft, December 2006.

4 Impact of ship emissions on the microphysical, optical and radioactive properties of marine stratus: a case study; Atmospheric Chemistry and Physics 6, 2006.

5 http://www.newscientist.com/channel/opinion/climate-change/dn13157-transport-emissions-study-misleading-say-experts.html.

6 http://www.unep.org/pcfv.