



MARINE ENVIRONMENT PROTECTION
COMMITTEE
57th session
Agenda item 4

MEPC 57/4/26
8 February 2008
Original: ENGLISH

PREVENTION OF AIR POLLUTION FROM SHIPS

The Annex VI revision process: a statement from refiners on proposed changes to the marine fuel supply chain

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

SUMMARY

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| <i>Executive summary:</i> | The BLG Sub-Committee proposed options for changes to the marine fuel supply chain to be considered at the fifty-seventh session of Marine Environment Protection Committee (MEPC 57). In January 2008, refiners from around the world met at IPIECA to respond to these options, and to assess, based on overall understandings of refining capacity, what changes to marine fuel quality might be possible, and in what time frame. The consensus below is provided to inform the deliberations of the Committee |
| <i>Strategic direction:</i> | 7.3 |
| <i>High-level action:</i> | 7.3.1 |
| <i>Planned output:</i> | 7.3.1.1 |
| <i>Action to be taken:</i> | Paragraph 14 |
| <i>Related document:</i> | MEPC 57/4 |

1 This document comments on document MEPC 57/4 and is submitted in accordance with the provisions of paragraph 4.10.5 of the revised Guidelines on the organization and method of work of MSC and MEPC and their subsidiary bodies (MSC-MEPC.1/Circ.1).

Introduction

2 MEPC is considering amendments to MARPOL Annex VI, which potentially affect the specifications of marine fuels. IPIECA has reviewed the specific options under consideration from the perspective of the industry's ability to supply the proposed fuels within the timeframes envisioned in the various proposals. This is a complex issue that needs to be informed by facts and sound science. In this context, the report of the Informal Cross Government/Industry Scientific Group of Experts (MEPC 57/4) has made a helpful contribution to the understanding of the issues.

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3 IPIECA acknowledges the need to continually evaluate options to reduce the environmental impact from shipping emissions, while continuing to meet customer needs for a dependable supply of fit-for-purpose marine fuels. Currently, marine fuel supply and demand are closely matched. Changes to the marine fuel regime should therefore be made in a phased manner to avoid supply disruptions and market distortions.

4 IPIECA supports the existing Sulphur Emission Control Area (SECA) concept as it relates to demonstrated local and regional environmental need and sound science, because it provides a mechanism to encourage the adoption of lower sulphur fuels in areas where air quality improvements would be most beneficial. Furthermore, measures taken in a given geography must be cost-effective and proportionate to parallel measures taken for land-based sources in these areas.

5 It should be recognized that production of lower sulphur fuels requires more refinery processing which will lead to increased energy consumption and associated emissions, and in particular CO₂. Any changes require a careful balancing between global climate change impacts and local air quality needs; lower sulphur fuels that have been produced with an associated CO₂ burden should be targeted for use in those areas (such as SECAs) where they lead to a meaningful improvement in environmental and health conditions, in response to demonstrated environmental need.

Key facts pertaining to refiners' ability to supply

6 Demand for fuel products in general, and marine fuels in particular, are projected to increase substantially between now and 2020. Fuel suppliers will be challenged to meet that growth, even without the additional requirements of potential changes to MARPOL Annex VI. Given the capacity constraints within the global construction industry, already evident today, care should be taken when making assumptions regarding the speed of implementation of associated refinery upgrading projects (Expert Group, paragraphs 92 and 115).

7 Experience has shown that large volumes of low-sulphur residual marine fuel cannot reliably be produced at sulphur contents below 1% due to technical, quality, and economic constraints.

8 A refiner faced with a market change in marine fuels will have essentially three options:

- .1 Invest in significant conversion capability and upgrade their refinery to produce middle distillate; this may be targeted at the road transport, rather than the marine fuels market;
- .2 Sell the residual fuel to a local (land-based) consumer such as a power station; and
- .3 Exit the local bunker fuel market and offer the residual fuel for export.

9 The eventual choice adopted by each particular refiner will depend on a combination of local circumstances and market conditions, leading to further uncertainty over marine fuels availability.

Conclusions

10 Taking the above considerations into account therefore, the refining industry, as represented by IPIECA, calls upon the IMO to:

- .1 recognize that the global change of a significant quantity of residual marine fuel to distillate on one particular date would have an impact on the fuel markets that is without precedent. It will not be possible to predict with any certainty how the refining industry and marine fuel markets will react and adjust;
- .2 adopt a framework that supports a gradual conversion to a lower sulphur regime that can be accommodated by the market, and maintains international alignment of marine fuel specifications. As part of this process, the lower limit of sulphur content from residual fuels should be recognized when setting limits on sulphur content in SECAs. Reductions in sulphur level that can be achieved through use of both distillate and residual fuels will impart increased flexibility to the marine fuel supply chain and is less likely to cause market instability;
- .3 take account of the balance of environmental benefit between changes to the global cap and SECA's, and the relative costs and benefits, in terms of climate change and air quality impacts, between the 'open ocean' and the SECA focused cases. Solutions should concentrate on achieving a lower-sulphur environment in SECAs based on demonstrated environmental need and feasibility of supply, while minimizing the net CO₂ emissions increase associated with producing more highly refined fuels; and
- .4 continue to evaluate technology options (i.e., onboard abatement) to achieve the overall objective of reducing emissions from shipping. This will have the added benefit of producing greater flexibility in the marine fuels market.

11 Of the options presented in annex 4 of MEPC 57/4, IPIECA therefore supports the principle set out in Option B (1.0% sulphur within SECAs) within a time frame to be agreed at IMO. IPIECA sees this as being the least likely to cause disruption to the marine fuel supply chain. This is because the SECA fuel sulphur restriction is set at a level that most likely can be achieved through the use of both residual and distillate fuel. IPIECA would support the inclusion of additional text that permits the use of alternative mechanisms (such as exhaust gas cleaning systems) to obtain equivalent levels of emission reduction.

12 IPIECA also note that the original Option B contains the provision for a change to the global sulphur cap, currently set at 4.5%. Climate change, air quality impact and supply capability should be considered before making changes to the global cap, for the reasons stated above.

13 IPIECA encourages IMO to set up an ongoing monitoring and modelling programme that will improve the understanding of the environmental impact of shipping. This should be the basis for any further consideration of regulatory changes affecting emissions from ships. The refining industry undertakes to participate fully and constructively in such a programme.

Action requested of the Committee

14 The Committee is invited to consider the information provided in this document and to select an option that is practical, achievable, and gives meaningful environmental benefit.