INTERNATIONAL MARITIME ORGANIZATION

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PREVENTION OF AIR POLLUTION FROM SHIPS

Comments on the outcome of BLG 12 on the review of MARPOL Annex VI and the NO_x Technical Code

Submitted by BIMCO

SUMMARY

Executive summary:	This document contains comments on the report of BLG 12 in document MEPC 57/4/23 and discusses the practical implementation of the various fuel options
Strategic direction:	7.3
High-level action:	7.3.1
Planned output:	7.3.1.1
Action to be taken:	Paragraph 12
Related documents:	MEPC 57/4, MEPC 57/INF.6, MEPC 57/INF.7; BLG 12/WP.6, BLG 12/INF.11 and MEPC 57/4/23

1 This document provides comments on document 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.

Introduction

2 BIMCO would in this connection like to express its appreciation for the work performed by the Chairman and the IMO secretariat during the Air Pollution Working Group at BLG 12 as well as for the extended deadline for commenting on the report.

3 It is appreciated that BLG 12 managed to agree to reduce the former six options for use of marine fuel which were agreed at during BLG 11, to three options. These options are in short:

.1 The global change to Distillate fuel, 1.0% S from 2012 and 0.5% S from 2015;

.2 The slightly amended US proposal of keeping the present global cap (4.5% S), but mandate 0.1% S fuel within Emission Control Areas (ECA); and

.3 The revised BIMCO proposal of lowering the global cap (to 3.0% S), use 0.1% S fuel in Micro-ECAs and mixed with former proposals of lowering S content within the SECAs.

4 It is duly noted that fixed dates have not yet been firmly attached to any of the options, but it is generally understood that some tightening of the regulations must be expected by 2012. It is also noted that a hybrid between the three options may be the outcome of MEPC 57. Finally, it is noted similar emission levels as specified by fuel sulphur content may be obtained by abatement techniques, but such equipment shall not be made mandatory in case of shortage of specified fuel types.

5 In the opinion of BIMCO, bearing in mind the expectations of the outside world to the outcome of this exercise, it is of crucial importance that whatever solution MEPC 57 decides to be forwarded to MEPC 58 for adoption, such a solution must be closely linked with a practical and realistic implementation scheme.

6 Set out below, BIMCO offers a discussion on the possible implementation of the three options based on discussions during BLG 12 as well a the outcome of the Expert Group report and the EnSys report.

7 As a general comment covering all the options, it must be borne in mind that the prediction of future refinery output is a very difficult exercise, which is why IMO in connection with the Expert Group work decided to spend US$25,000 to have analysis done based on the best models available on the market. One of these models, from the consultancy EnSys, is published in document MEPC 57/INF.7. Furthermore, it must be recalled that IMO can regulate emissions from ships, but IMO is not able to dictate refinery production.

Practical implementation of the three options

8 **Option 1**:

8.1 In order to deliver the necessary amounts of distillate fuel required by this option, refineries will have to invest some 40% more than otherwise planned. Up to 2020 this will mean $127 billion on top of the planned $318 billion. The attraction of such investments will depend on the anticipated return which again is linked to expected fuel prices as well as possible impact on other refinery products.

8.2 If refineries decide to push ahead with the investments, there are physical constraints they need to take into account. Upgrading of refineries, including installation of cokers and hydro crackers because of the interconnections between the various other refinery process units, are typically carried out during planned maintenance and upgrading programmes – normally on a 5-6 year cycle. Furthermore, the mentioned devices are not off-the-shelf merchandise, but need to be ordered years in advance and can only be installed by specially trained personnel. Hence the EnSys report predicts the implementation time for option 1 to be "*…15 or more years*". This will in reality mean 2020 at the earliest.

8.3 The required amounts of distillates will, quite simply, not be available by 1 January 2012 and it is evident that a wholesale shift of 323 mill tons of HFO annually to distillates cannot be delivered over night. Any attempt to try to enforce such a shift, will most likely create a very chaotic situation in the bunker market and will force Flag States and Port States to issue waivers right, left and centre in order to keep world trade moving.

8.4 The question that could be raised then is whether it will be possible to make a gradual implementation in a fair way e.g., by ship size, by ship type, by ship age, by flag or by trade?

8.5 A scheme whereby ships below e.g., 10.000 GT must use distillates from 2012, followed by ships below 25,000 GT by 2015, ships below 50,000 GT from 2018 and finally by all ships by 2021, could be considered. However, such a drawn out implementation will not deliver the expected reduction in air pollution, in particular in populated areas where a reduction in SO_x and PM output is urgently requested. Instead it will create a situation where a number of ships will be burning clean distillates in the middle of the ocean while other ships will be burning HFO in ports close to populated areas.

8.6 Another way would be to go by ship type. In this scenario it would be most fair to first target those ships to which fuel prices will have the least negative effect. This is considered to be those ships which operate on contracts whereby the charterers of the ships also carry the fuel bills. Such ships are tramp ships, typically tankers, bulk carriers and general cargo ships. However, even by starting with tankers only, the big question is whether it will be possible, i.e., whether the required amounts of distillate fuel to replace the 45-50 mill tons on HFO projected to be consumed by the tanker sector by 2012, is available. Even if it is available, the result will be, as above, that this option will not deliver the expected reduction in SO_x and PM. Starting with tankers would, however, be the most reasonable place to start as it is this sector which apparently has requested a shift to distillate.

8.7 An implementation by ship age will, no matter whether to start with the newest or the oldest ships, never be deemed fair. Implementation by flag would most likely lead to massive change of flag, whereby the environment will not gain anything. Finally, implementation by trade could easily lead to loop holes whereby cargoes are carried from A to B by mysterious routes in order to avoid regulations. This will create an administrative nightmare and will most likely not do any good for the environment.

8.8 In summary, none of these scenarios to implement Option 1 deliver what the world is expecting from the shipping industry and from IMO, so for that reason Option 1 is not a viable way forward.

9 **Option 2**:

9.1 Maintaining the global cap is no challenge, so the challenge in this option is whether there will be sufficient supply of 0.1% S fuel by the implementation date, which is presumed to be 1 January 2012.

9.2 This will of course depend on the penetration of ECAs with this requirement. It must be borne in mind that EU in the Sulphur Directive (Directive EC/2005/33) has effectively declared all EU ports to be Micro-ECAs from 1 January 2010. It can also be expected that the United States will implement something similar to the EU directive, but stretching some distance of up to 24 miles out to the sea. Based on the fuel requirement calculation performed by the Scientific Group of Experts (MEPC 57/INF.6), a linear interpolation gives a global fuel

requirement for ships in ports by 2012 of some 93 mill tons of which some 40% is estimated to be distillates. With only a limited penetration (EU and US) by 2012 some 20 mill tons of 0.1% S fuel is estimated to be required. It is recognized that 20 mill tons of 0.1% S distillate is a serious amount of DMA fuel, but still only some 6% of the distillate fuels required by Option 1.

10 **Option 3**:

10.1 Lowering the global cap to 3.0% S may offer a real supply challenge up front. The EnSys report suggests that lowering to 3.5% could be achieved, hence that could be a starting point, with an overall strategic goal of further lowering the global cap along the way.

10.2 With a 0.1% S requirement within Micro-ECAs the challenge will, similar to option 2, be the penetration of this requirement. Again it is worthwhile noting that by 2010 every EU port will become a Micro-ECA and that the United States is expected to introduce similar requirement in some areas.

10.3 The impact of a possible lowering of the S content in fuels within the existing SECAs (1.0% by 2012 and 0.5% by 2015) has not been assessed at this point in time. This will in reality mean a shift from Low Sulphur Heavy Fuel Oil (LSFO) to distillate (DMB or DMC) and may be difficult to achieve while at the same time requiring 0.1% S fuel to be used in all EU ports.

Summary

11 The above discussion, which is based on the referenced documents and the discussions in the BLG working group, leads to the following conclusions on deliverability in improved air quality where it matters, by the three options:

Option 1:	Will <u>not</u> deliver
Option 2:	Will deliver
Option 3:	Will deliver, but lowering S content in existing SECAs by 2012 may cause problems, which should be carefully assessed.

Conclusion

11 It is hoped that the Committee will arrive at a realistic solution which will deliver the expected improvement in air quality and which can be implemented as quickly as possible after the expected entry into force of the amended Annex VI. This date is believed to be early 2010 and at least option 2 and 3 can apparently be implemented from 2011 or 2012 at the latest, whereas Option 1 will not deliver until 2020 at the earliest.

Action requested of the Committee

12 The Committee is invited to note the information provided in this document, in particular in paragraph 10, and to take it into consideration when deliberating on the report of BLG 12.

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