

**Submission by the International Maritime Organization
to the thirty-sixth session of UNFCCC's Subsidiary Body for
Scientific and Technological Advice (SBSTA 36)**

**Agenda item 10(d)
Emissions from fuel used for international aviation and maritime transport**

**Outcome of the sixty-third session of IMO's Marine Environment Protection
Committee - further progress made on technical, operational and market-based
measures to increase energy efficiency in international shipping**

4 April 2012

SUMMARY

IMO's Marine Environment Protection Committee met for its sixty-third session (MEPC 63) in February/March 2012 with control of greenhouse gas emissions from ships engaged in international trade as the paramount issue on its agenda. More than 800 delegates from 99 Member States, five United Nations bodies, six intergovernmental organizations and 46 non-governmental organizations with consultative status with IMO participated at the session.

The Committee adopted important series of guidelines to support uniform implementation of the mandatory measures to increase energy efficiency and reduce emissions of greenhouse gases (GHGs) from international shipping, paving the way for the regulations on EEDI and SEEMP to be smoothly and uniformly implemented by Administrations and industry upon entry into force on 1 January 2013.

The MEPC also continued its intensive discussion on market-based measures for greenhouse gas emissions from international shipping.

IMO is now focusing its efforts on technical cooperation and capacity building to ensure smooth and effective implementation and enforcement of the new regulations worldwide and will be holding a series of workshops in all regions of the world on implementation of the measures to address GHG.

Introduction

1 IMO's Marine Environment Protection Committee met for its sixty-third session (MEPC 63) in London from 27 February to 2 March 2012 where, yet again, control of greenhouse gas (GHG) emissions and improvement in energy efficiency for ships engaged in international trade was the dominant issue on its agenda.

2 Due to its close connection to global commerce, international shipping plays a vital role in the facilitation of world trade as the most cost-effective and energy-efficient mode of mass transport, making a significant contribution to global prosperity in both developing and developed countries.

3 As shipping is a global industry with most ships registered in developing countries and shipowners having the freedom to choose where to register their ships, it must be regulated at the global level for any control regime to be effective and to maintain a level playing field for all ships irrespective of flag (nationality) or ownership. In other words, the global character of shipping requires global regulation that applies universally to all ships in line with the basic principle of non-discrimination set out in IMO's constitutive Convention.

4 IMO was established by governments as a specialized agency under the United Nations to provide machinery for intergovernmental cooperation in the field of regulation of ships engaged in international trade. IMO is responsible for the global regulation of all facets pertaining to international shipping and has a key role in ensuring that lives at sea are not put at risk and that the environment is not polluted by ships' operations – as summed up in IMO's mission statement: **Safe, Secure and Efficient Shipping on Clean Oceans**.

Work on control of greenhouse gas emissions from international shipping

5 Mandatory measures to improve energy efficiency and to reduce GHG emissions from international shipping were adopted by Parties to MARPOL Annex VI at MEPC 62 in July 2011, representing the first ever mandatory global energy efficiency standard for an international industry sector, and the first legally binding climate change treaty to be adopted since the Kyoto Protocol. The measures are expected to enter into force on 1 January 2013. For comprehensive information on the breakthrough adoption of mandatory technical and operational measures, please refer to IMO's submission to SBSTA 35 (FCCC/SBSTA/2011/MISC.9, as well as IMO's website: www.imo.org.

6 As a follow up to the breakthrough at IMO in July 2011, MEPC 63 in March 2012 adopted four sets of important guidelines intended to assist in the implementation of the mandatory regulations on Energy Efficiency for Ships in MARPOL Annex VI:

- *2012 Guidelines on the method of calculation of the attained Energy Efficiency Design Index (EEDI) for new ships;*
- *2012 Guidelines for the development of a Ship Energy Efficiency Management Plan (SEEMP);*
- *2012 Guidelines on survey and certification of the Energy Efficiency Design Index (EEDI); and*
- *Guidelines for calculation of reference lines for use with the Energy Efficiency Design Index (EEDI).*

7 Finalization and adoption of the supporting guidelines was a significant achievement which provides sufficient lead time for Administrations and industry to prepare. The guidelines will support Member States in their uniform implementation of the amendments to MARPOL Annex VI *Regulations for the prevention of air pollution from ships*, adopted in July 2011, which add a new chapter 4 to Annex VI on regulations on energy efficiency for ships to make mandatory the Energy Efficiency Design Index (EEDI) for new ships, and the Ship Energy Efficiency Management Plan (SEEMP) for all ships.

8 The EEDI is a non-prescriptive, performance-based mechanism that leaves the choice of technologies to use in a specific ship design to the industry. As long as the required energy-efficiency level is attained, ship designers and builders would be free to use the most cost-efficient solutions for the ship to comply with the regulations.

9 All ships above 400 gross tonnes engaged in international trade will, from the entry into force of the new regulations, have to implement and maintain a ship specific Energy Efficiency Management Plan - the SEEMP which establishes a mechanism for operators to improve the energy efficiency of ships. Each ship will have to monitor the energy efficiency performance of its transportation work and at regular intervals consider new technologies and practices to improve its energy efficiency.

10 The MEPC 63 also agreed an updated work plan for the development of further guidelines and the development of energy efficiency frameworks for those ships not covered by the current EEDI regulations.

Technology transfer resolution debated

11 Linked to the implementation of energy efficiency measures was the draft MEPC resolution on the *Promotion of technical co-operation and transfer of technology relating to the improvement of energy efficiency of ships*, where it was agreed to further discuss the draft at the next session.

MBMs discussion continues

12 The MEPC 63 continued its consideration of proposed market-based measures (MBMs), which would complement the technical and operational measures already adopted. Further debate will continue at the next session (MEPC 64, 1 to 5 October 2012). The MBM proposals under review range from a contribution or levy on all CO₂ emissions from international shipping or only from those ships not meeting the EEDI requirement, via emission trading systems, to schemes based on a ship's actual efficiency, both by design (EEDI) and operation (SEEMP).

13 The Committee considered the undertaking of an impact assessment of the MBM proposals with focus on possible impacts on consumers and industries in developing countries, in particular, least developed countries, small islands developing States and remotely located developing countries with long trading distances, and considered in detail the methodology and criteria it should be based on. Towards the end of the meeting, the Chairman presented consolidated draft terms of reference for the impact assessment which will continue to be considered at the next session in October 2012.

Technical assistance related to improvement of energy efficiency in shipping

14 The Vice-Chairman of MEPC undertook in 2009, in accordance with relevant IMO provisions, a preliminary assessment of the capacity building needs related to the then proposed new chapter 4 of MARPOL Annex VI, which made the following observations and recommendations:

- .1 it will be necessary to update national legislation and developing countries may need technical assistance to do this;
- .2 there will be a need to train seafarers in use of new technologies;
- .3 there will be a need to train flag and port State control officers to ensure effective and uniform implementation and enforcement; and
- .4 that it is necessary to instil in the industry an energy efficiency culture both onboard ships and in the land-based organizations.

15 It was suggested in the preliminary assessment that IMO's Integrated Technical Cooperation Programme (ITCP) should allocate funding for the recommended training and that such activities should be implemented before the entry into force of the amendments. This recommendation has been thoroughly followed up by IMO which has developed training courses and material in response to the identified needs as set out below:

- .1 **Awareness raising of energy efficiency and CO₂ emissions from international shipping:** Regional and national workshops to raise awareness of GHG emissions from ships and their link to climate change, and in particular on the mandatory technical and operational measures in Chapter 4 of MARPOL Annex VI.
- .2 **Energy Efficient Ship Design:** Regional and national workshops to enable participants to identify the elements influencing the energy efficiency of a given ship design and to use relevant tools for calculation of a ship's EEDI value.
- .3 **Energy Efficient Ship Operations:** Regional and national workshops Aimed at training personnel on full and effective implementation and optimization of operational energy efficiency measures on board ships.
- .4 **Port State Control related to energy efficiency and GHG emissions under MARPOL Annex VI:** Regional workshops for PSC officers to raise awareness of the MARPOL Annex VI requirements on energy efficiency and to enhance their global and uniform implementation and enforcement.

16 A comprehensive portfolio of training material has been produced under each of the abovementioned activities and train-the-trainer courses are and will be held. In addition to funding through IMO's technical cooperation programme (ITCP), IMO in April 2011, signed an agreement with the Korean International Cooperation Agency for implementation of a project on "Building Capacities in East Asian countries to address GHG emissions from Ships". A total of 12 workshops or training courses are planned for 2012 and IMO is seeking additional funding from various sources to scale up the activities.

Conclusions

17 Although international maritime transport is the most energy efficient mode of mass transport and only a modest contributor to worldwide CO₂ emissions (2.7% in 2007), a global approach for further improvements in energy efficiency and emission reduction is needed as sea transport is predicted to continue growing significantly in pace with world trade.

18 IMO has developed and adopted a set of robust and efficient technical and operational measures that will serve as mandatory performance standards for increased energy efficiency in international shipping in a comprehensive regulatory framework based on the Organization's extensive experience and well established policies and practices. The framework builds on IMO's reputable and well tested enforcement and control provisions (flag and port State controls) and includes also aspects such as monitoring, verification and reporting as well as modalities for effective implementation. The Organization's work on these matters represent a practical approach that may very well serve as an example of how to establish global performance standards on energy efficiency.

19 With regard to the market-based measures, IMO and its Member Governments, recognising that the technical and operational measures alone would not be sufficient to satisfactorily reduce the amount of GHG emissions from international shipping in view of projections for world trade and the overall reductions needed to meet the two degrees target, are engaged in discussions to establish a possible mechanism that will enable the shipping industry to achieve the eventually agreed reduction target.

20 IMO, as the global regulator of international shipping, will continue its endeavours to reduce any environmental impacts from international maritime transport, a transport industry that is vital to world trade and sustainable development, and keep relevant bodies of the UNFCCC informed of its achievements.
