

MARINE ENVIRONMENT PROTECTION
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REDUCTION OF GHG EMISSIONS FROM SHIPS

Preliminary assessment of capacity-building implications

Note by the Vice-Chairman

SUMMARY

<i>Executive summary:</i>	This document presents the results of a preliminary assessment of the possible capacity-building implications of applying the proposed draft requirements for energy efficiency of ships being developed by the Committee, in accordance with the procedures approved by MEPC 59
<i>Strategic direction:</i>	3.5 and 7.3
<i>High-level action:</i>	3.5.3 and 7.3.2
<i>Planned output:</i>	3.5.3.2 and 7.3.2.1
<i>Action to be taken:</i>	Paragraph 6
<i>Related documents:</i>	A.998(25); MEPC 59/21/1 (annex 3), MEPC 59/24, MEPC 59/24/Add.1; MEPC 60/WP.9 and MEPC 60/22

Introduction and background

1 The twenty-fifth session of the Assembly, in adopting resolution A.998(25) on Need for capacity-building for the development and implementation of new, and amendments to existing instruments, recommended that the Council and the Committees consider, as a means to promote and enhance capacity-building efforts, proposals for the development of new instruments and/or amendments to existing ones after an assessment of implications for capacity-building and technical co-operation has been undertaken.

2 Subsequently, MEPC 59, in concurring with similar action taken by MSC 86, approved amendments to the Guidelines on the organization and method of work of the MSC and MEPC and their subsidiary bodies (MSC-MEPC.1/Circ.2), including new Procedures for the assessment of implications of capacity-building requirements when developing new, or amending existing, mandatory instruments (MEPC 59/24/Add.1, annex 29).

3 At MEPC 60, a number of delegations expressed the view that, before the energy efficiency measures being developed by the Committee could be considered as mandatory requirements for all ships, the impact for developing countries should be assessed in line with the requirements of resolution A.998(25) and the new Procedures mentioned in paragraph 2 above.

4 Although the energy efficiency measures under development did not constitute a new work programme item, MEPC 60 decided to implement the above Procedures and agreed that a preliminary assessment, as required in the Procedures, should be carried out in parallel with the continued development of the technical and operational measures, in order not to impede progress.

Outcome of the preliminary assessment

5 The Vice-Chairman, in consultation with the Chairman and assisted by the Secretariat, conducted a preliminary assessment of the possible capacity-building implications of applying the draft regulations being proposed for inclusion in MARPOL Annex VI, in accordance with the Checklist for the identification of capacity-building implications (appendix 2 of the new Procedures). The results of the preliminary assessment are set out in the annex to this document and contain the Vice-Chairman's appraisal of:

- .1 whether there are or there will be capacity-building implications or need for technical assistance;
- .2 possible implications; and
- .3 recommendations on the way forward.

Action requested of the Committee

6 The Committee is invited to consider the outcome of the preliminary assessment and the Vice-Chairman's appraisal and recommendations on the way forward, as set out in the annex, and to take action as it may deem appropriate.

ANNEX

IDENTIFICATION OF CAPACITY-BUILDING IMPLICATIONS OF APPLYING THE PROPOSED DRAFT REQUIREMENTS FOR ENERGY EFFICIENCY OF SHIPS

IMPLICATIONS FOR ADMINISTRATIONS

1 Is new legislation required?

If the proposed requirements are incorporated as a new Part in MARPOL Annex VI, the Administration of a Party to the 1997 MARPOL Protocol would have to adjust its national legislation accordingly with respect to ships entitled to fly its flag other than those operating solely in waters subject to its sovereignty or jurisdiction.

2 Is there a requirement for new equipment and or systems?

Compliance with the proposed required Energy Efficiency Design Index (EEDI) (draft regulations 3 and 4) may entail the introduction of technological innovations related to all the components influencing the fuel efficiency of a ship, including hull, machinery and other systems, into the design and construction of new ships. However, the role of the flag Administration would normally be limited to ensuring that any new ship due to fly its flag complies with the new regulations, while the task of finding solutions to the technological challenges would generally fall upon ship designers and builders and also on classification societies for survey and certification purposes when acting on behalf of the Administration as Recognized Organizations.

As regards the proposed Ship Energy Efficiency Management Plan (SEEMP) (draft regulation 5), the flag Administration would be expected to ensure that any new ship due to fly its flag or any existing ship flying its flag keeps on board a SEEMP developed taking into account guidelines adopted by the Organization. The implementation of the energy efficiency measures earmarked in the SEEMP, including the installation of equipment or systems and the management of any required practices, would be the responsibility of the ship owner/operator.

- .1 *Does equipment manufacturing capacity exist internationally?* – As regards the proposed EEDI, being of a goal-based nature, there are no specific equipment requirements. It would, therefore, be safe to assume that, when an EEDI-compliant ship is designed and constructed, the shipbuilder will make sure that the necessary equipment is available, either in-house or elsewhere in the market. In the case of existing ships to which the SEEMP regulation would apply, the assumption is that any necessary equipment to enhance its energy efficiency would be installed if such equipment is available internationally.
- .2 *Do equipment repair/servicing facilities exist internationally?* – The comments in subparagraph .1 apply.
- .3 *Is there capacity to develop new systems?* – New systems are being developed continuously, a fact that is well publicized in the specialized media from time to time. So the capacity to develop such systems should be there.

3 Will the implementation require additional financial resources?

The Administration may need only marginal additional financial resources, as it is the case when any new amendments to IMO Conventions are implemented. In the first instance, the financial burden will mainly fall upon the shipowners/operators.

4 Is there a need for additional human resources or new skills?

In general, it is not envisaged that the implementation of the proposed requirements as MARPOL Annex VI regulations would necessitate additional human resources. The Administration, however, may need to familiarize existing flag State control personnel with the new regulations, provided the approval and verification procedures are carried out by Recognized Organizations duly authorized to carry out these functions on its behalf. Should the Administration decide to undertake the said functions by itself, it will need additional human resources commensurate with the number of ships entitled to fly its flag. Regarding port State control, specific training of PSC Officers will be needed and this should be carried out through the existing PSC regional agreements/arrangements.

5 Will there be a need to upgrade current infrastructure?

The infrastructure of a well-functioning maritime Administration should be able to absorb the new responsibilities and functions without major problems.

6 Is there enough lead-time towards implementation?

If the proposed new regulations are adopted, say, by MEPC 62 in July 2011, they would normally be expected to enter into force in January 2013. This is considered to give sufficient lead-time for Administrations to prepare for implementation.

7 Will there be a rapid implementation procedure adopted?

The implementation procedure would follow that stipulated in MARPOL – see above.

8 Is there a substantial modification of existing standards?

The proposed new requirements would mean the introduction of new standards.

9 Will a guide to implementation be needed?

Under the draft new requirements, the Organization (MEPC) is expected to adopt detailed guidelines on the application of the Energy Efficiency Design Index and the Ship Energy Efficiency Management Plan. The Committee has already developed both sets of guidelines, which are meant to be refined once the text of the new regulations is finalized. The guidelines are expected to be adopted at the same time as the regulations and it is anticipated that they will provide a solid guide for implementation.

IMPLICATIONS FOR THE INDUSTRY

10 Would the industry require new and/or enhancement of existing systems?

As explained in the previous section, regulations 3 (Attained EEDI) and 4 (Required EEDI) of the proposed new Part 2 of MARPOL Annex VI may entail the introduction of technological innovations related to all the components influencing the fuel efficiency of a ship, including hull, machinery and systems, into the design and construction of new ships. When a new

ship, to which these regulations would apply, is ordered in the future, the shipowner/operator will be expected to negotiate with the ship designer/builder which new or enhanced existing systems or innovations will be required to meet the EEDI requirements.

The implementation of the energy efficiency measures earmarked in the SEEMP (regulation 5) may include the installation of new or enhanced systems and the adoption of energy efficiency practices by the shipowner/operator.

- .1 *Does capacity exist internationally to develop new systems?* – The comments under 2.1 above are also relevant in this context.

11 Is there a need for additional training of seafarers?

It is envisaged that the crew of an EEDI-compliant new ship may need a degree of specialist training, depending on the complexity and nature of the equipment and systems installed to attain the required level of energy efficiency. Likewise, an existing ship on which systems and procedures have been upgraded according to the SEEMP may make it necessary for the crew to be trained in specific areas. In general, an energy efficiency culture should be instilled in all seafarers.

- .1 *Do related and validated training courses exist?* – IMO is planning to develop a Model course on the SEEMP in collaboration with the World Maritime University, once the regulations and related guidelines are finalized.
- .2 *Are there sufficient simulation training courses available internationally?* – No simulation training courses are envisaged for development by IMO, but it is likely that the industry will do so.

12 Will there be a requirement for new equipment?

Innovations in ship design and construction may entail the incorporation of new equipment or systems to enhance energy efficiency. The comments under paragraph 10 above are also relevant in this context.

- .1 *Does manufacturing capacity exist internationally?* – Some equipment or systems may already be available in the international market, while manufacturing capacity for new systems under development may require more time.

13 Is there repair/servicing and/or retrofitting and does maintenance capacity exist internationally?

Repair/servicing and/or retrofitting may be needed for existing ships when trying to enhance their energy efficiency while implementing their specific SEEMP. It is believed that sufficient capacity exists internationally to cater for any required repairs, servicing or retrofitting.

VICE-CHAIRMAN'S APPRAISAL

14 Are there or will there be capacity-building implications or need for technical assistance?

If the proposed requirements on energy efficiency of ships are adopted as amendments to MARPOL Annex VI, the Parties to the 1997 MARPOL Protocol would need to update their

national legislation and provide any necessary training to the relevant officers in their maritime Administration to make sure that ships flying their flag, and foreign ships while in a national port or offshore terminal, comply with the new requirements.

Some developing countries may need technical assistance, as would be the case with any other new set of regulations or amendments adopted by IMO.

15 List of possible implications

- .1 Relevant national maritime legislation will need to be updated.
- .2 Regional/subregional training of appropriate flag State and port State control officers may be necessary.

16 Recommendations on the way forward

It is recommended that the Integrated Technical Co-operation Programme (ITCP) of the Organization for the 2012-2013 biennium allocate funding for the training activities mentioned in paragraph 14 above and that the said activities are implemented before the entry into force of the amendments. Should additional funding become available specifically for the purpose of supporting the Organization's efforts to reduce or limit GHG emissions from international shipping, emphasis should be placed on supplementing the identified capacity-building activities under the ITCP.
