MARINE & OFFSHORE DIVISION MANAGEMENT
L-C&R

MEPC 73 - 22 TO 26 OCTOBER 2018
MAJOR OUTCOMES OF THE 73TH SESSION OF THE IMO MARINE ENVIRONMENT PROTECTION COMMITTEE

SUMMARY

The seventy-third session of the Marine Environment Protection Committee (MEPC 73) was held from 22 to 26 October 2018.

MEPC 73 adopted the following **resolutions** :

- Res.MEPC.305(73) – Amendments to MARPOL Annex VI (prohibition on the carriage of non-compliant fuel oil for combustion purposes for propulsion or operation on board a ship) (**item 3.1**);
- Res.MEPC.306(73) – Amendments to the guidelines for ballast water management and development of ballast water management plans (G4) (**item 4.4**);
- Res.MEPC.307(73) - 2018 Guidelines for the discharge of exhaust gas recirculation (EGR) bleed-off water (**item 5.1**);
- Res.MEPC.308(73) – 2018 Guidelines on the method of calculation of the attained Energy Efficiency Design Index (EEDI) for new ships (**item 5.4**);
- Res.MEPC.309(73) – Amendments to the 2014 guidelines on survey and certification of the energy efficiency design index (EEDI) (Res. MEPC.254(67), as amended by Res. MEPC.261(68)) (**item 5.4**);
- Res.MEPC.310(73) – Action plan to address marine plastic litter from ships (**item 8**);
- MEPC.311(73) – 2018 Guidelines for the application of MARPOL ANNEX I requirements to floating production, storage and offloading facilities (FPSOS) and floating storage units (FSUS) (**item 11.4**).

MEPC 73 approved the following **circulars** :

- BWM.2/Circ.69 - Guidance on System Design Limitations of ballast water management systems and their monitoring (**item 4.2**);
- BWM.2/Circ.70 - Guidance for the commissioning testing of ballast water management systems (**item 4.3**);
- MEPC.1/Circ.875/Add.1 - Guidance on best practice for fuel oil suppliers for assuring the quality of fuel oil used delivered to ships (**item 5.1**);
- MEPC.1/Circ.878-Guidance on the development of a ship implementation plan for the consistent implementation of the 0.50% sulphur limit under MARPOL Annex VI (**item 5.2**);
- MEPC.1/Circ.880 on Reporting of availability of compliant fuel oils in accordance with regulation 18.1 of MARPOL Annex VI (**item 5.2**);
- MEPC.1/Circ.795/Rev. - Unified interpretations to MARPOL Annex VI (**item 6.1**);
- MEPC.1/Circ.879-Guidelines for the carriage of energy-rich fuels and their blends (**item 11.2**).

MEPC 73 also approved :

- draft amendments to the NOX Technical Code 2008 concerning certification requirements for SCR systems (**item5.1**);
- draft resolution on Amendments to the 2017 Guidelines addressing additional aspects to the NOX Technical Code 2008 with regard to particular requirements related to marine diesel engines fitted with Selective Catalytic Reduction (SCR) Systems (resolution MEPC.291(71)), in conjunction with the above-mentioned draft amendments to the NOX Technical Code 2008 (**item 5.1**);
- draft amendments to regulations 2.42 and 19.3 of MARPOL Annex VI concerning EEDI regulations for ice-strengthened ships (**item 5.4**);
- Programme of follow-up actions of the Initial IMO Strategy on reduction of GHG emissions from ships up to 2023 (**item 7.1**);
- draft amendments to the international code for the construction and equipment of ships carrying dangerous chemicals in bulk (IBC Code) (**item 11.1**);
- draft amendments to the code for the construction and equipment of ships carrying dangerous chemicals in bulk (BCH Code) (**item 11.1**);
- draft amendments to MARPOL Annex II, relating to cargo residues and tank washings of persistent floating products with a high viscosity and/or a high melting point(**item 11.3**) ;
- draft MEPC resolution on Guidelines for the use of electronic record books under MARPOL (**item 11.5**);
- draft amendments to MARPOL ANNEXES I, II, V and VI and the NOX technical code (electronic record books) (**item 11.5**).

Item 2 - Decision of other bodies

Following the concurrent decision by MSC 99, MEPC 73 approved, subject to concurrent approval by FAL 43 and LEG 106, the amendments to the *List of Certificates and documents required to be carried on board ships, 2017* (FAL.2/Circ.131-MEPC.1/Circ.873-MSC.1/Circ.1586-LEG.2/Circ.3), to be issued as a joint FAL, MSC, MEPC and LEG circular.

Item 3-Consideration and adoption of amendments to mandatory instruments

3.1. Draft amendments to MARPOL Annex VI - Secretariat

MEPC 73 has adopted **Res.MEPC.305(73) – Amendments to MARPOL Annex VI (prohibition on the carriage of non-compliant fuel oil for combustion purposes for propulsion or operation on board a ship)**

These amendments shall be deemed to have been accepted on 1 September 2019 and shall enter into force on 1 March 2020

Notwithstanding the assurance provided by the Chair that the carriage ban on non-compliant fuel oil is not applicable when an alternative arrangement approved under regulation 4.1 of MARPOL Annex VI is in use on board a ship, some delegates remained concerned that a plain reading of the text could invite an incorrect conclusion that the carriage of non-compliant fuel oil is prohibited in all circumstances.

Therefore, with a view to promoting consistent enforcement of regulation 14 of MARPOL Annex VI with regard to ships using alternative arrangements, MEPC 73 agreed to instruct PPR 6 to clarify this matter as part of its ongoing work in updating the *2009 Guidelines for port State control under the revised MARPOL Annex VI* (Res. MEPC.181(59)).

Item 4 - Harmful aquatic organisms in ballast water

4.1 Experience-building phase

MEPC 71 had adopted resolution MEPC.290(71) on *The experience-building phase associated with the BWM Convention* and MEPC 72 had approved the *Data gathering and analysis plan for the experience-building phase* (BWM.2/Circ.67).

The IMO Secretariat has initiated the preparations for a module in the Global Integrated Shipping Information System (GISIS) to accommodate the experience-building phase, structured in accordance with BWM.2/Circ.67. The module is expected to be available by the end of 2018.

MEPC 73 approved the following new outputs :

- "Review of the BWM Convention based on data gathered in the experience-building phase", in the biennial agenda of the Committee, with a target completion year of 2023;
- "Urgent measures emanating from issues identified during the experience-building phase of the BWM Convention", in the biennial agenda of the Committee, with a target completion year of 2023.

4.2. Guidance on System Design Limitations of ballast water management systems and their monitoring

MEPC 73 approved ***BWM.2/Circ.69 - Guidance on System Design Limitations of ballast water management systems and their monitoring.***

The term "System Design Limitations" refers to the physical and/or operational limitations inherent in the design of the BWMS itself, as opposed to the minimum criteria within the BWMS Code.

The SDL approach is intended to complement the standardized tests in the BWMS Code by providing validated information on the conditions for which an individual BWMS is designed. This information is communicated transparently on the Type Approval Certificate to shipowners who are required by the Convention to meet the D-2 standard during every ballast water discharge and to crew members who will operate BWMS.

SDLs should be identified and validated for each specific BWMS presented for approval. The Circular offers guidance on the inclusion of System Design Limitations (SDL) on Type Approval Certificates of ballast water management systems (BWMS). The document recommends potential SDL for various BWMS technology and self-monitoring parameters that may be associated with those SDL.

It is noted that SDL "…should be developed using measures and units that are as accessible as possible to the end-user, that are relevant to the operation of ships, and that may be displayed, monitored, recorded, and alarmed by the BWMS self-monitoring system".

MEPC 73 has recalled that references to the Guidelines (G8) and 2016 Guidelines (G8) in existing IMO instruments should be read to mean references to the BWMS Code (resolution MEPC.300(72), paragraph 6). BWM.2/Circ.69 has been drafted accordingly.

4.3. Guidance on validation of the compliance of individual BWMS with regulation D-2 of the BWM Convention in conjunction with their commissioning

MEPC 73 approved ***BWM.2/Circ.70 - Guidance for the commissioning testing of ballast water management systems,*** regarding regulation D-2 of the BWM Convention in conjunction with their commissioning.

As defined in regulation D-3 of the BWM Convention, ballast water management systems shall be approved by the Administrations in accordance with the BWMS Code. Land-based and shipboard testing for each type of ballast water management system shall be conducted for the approval. When a type approved system is installed, survey and commissioning are carried out to check whether the BWMS has been installed appropriately.

Sampling undertaken in the context of this process would be indicative and not detailed. This validation would entail indicative analysis and is not meant to confirm compliance with regulation D-2 at the same level as type approval testing.

Testing should cover all size classes defined in regulation D-2 and the methods listed in circular BWM.2/Circ.42/Rev.1 should be used on a trial basis during the experience-building phase.

The 2017 version of the Harmonized System of Survey and Certification (HSSC), adopted by A 30 through resolution A.1120(30), already included the provision for this validation (survey item (BI) 1.1.2.19). While the validation was intended to be carried out for all new installations of BWMS, survey item (BI) 1.1.2.19 is applicable only to initial surveys whereas for existing ships this installation might be connected to an additional survey.

Noting this, MEPC 73 recognized that there was a need to identify how the validation can be addressed in the HSSC for existing ships, or elsewhere.

Consequently, MEPC 73 has instructed the Correspondence Group on Updated Survey Guidelines under the Harmonized System of Survey and Certification (HSSC), established by III 5, to ensure that the validation of BWMS at their commissioning be incorporated in the 2019 HSSC Guidelines for all ships, including new ballast water management system installations on existing ships.

Recognized organizations are expected to take due account of the provisions in the latest version of the HSSC Survey Guidelines that this commissioning testing should be undertaken. However, there is currently no parallel mandatory provision in the Convention/Code to require this testing to be done; nor is there any guidance (as referred to in the HSSC Survey Guidelines) as to what testing should be conducted.

IACS remains concerned at how this issue has developed - that is agreeing new provisions in the HSSC Survey Guidelines and now approving these new non-mandatory Guidelines for Commission Testing; both in the absence of a mandatory basis in the BWM Convention.

Possible submission to MEPC 74 proposing text for an appropriate amendment to regulation E-1 of the BWM Convention, if approved at MEPC 74, would then be adopted at MEPC 75 in Spring 2020. Consequently, the likely entry into force date for this amendment will be 1 January 2022.

Hence, IACS would urge Member States and interest parties to consider making a proposal to MEPC 74 regarding interim measures in the period before this amendment will enter into force.

4.4. Contingency measures in the ballast water management plan

MEPC 73 has adopted **Res. MEPC.306(73) – Amendments to the guidelines for ballast water management and development of ballast water management plans (G4)** (Res. MEPC.127(53))

Paragraph 4.3 is added in part B:

> *"4.3 The ballast water management plan should include contingency measures developed taking into account guidelines developed by the Organization*."*

The main consideration at MEPC 72 had been the timing when information on contingency measures should be included in ballast water management plans (BWMPs). Some delegations

were of the view that this should be done when a BWMP is revised due to a ship's compliance with regulation D-2, while other delegations expressed the view that this should be done as soon as possible.

Finally, MEPC 73 agreed that each Member State may determine the timing for the incorporation of information on contingency measures in the BWMPs of ships flying its flag.

Item 5-Air pollution and energy efficiency

5.1. Outcome of PPR 5

Guidelines for the discharge of exhaust gas recirculation (EGR) bleed-off water

MEPC 73 agreed that the draft Guidelines should apply to a marine diesel engine fitted with an EGR device having a bleed-off water discharge arrangement, for which the EIAPP Certificate is first issued on or after 1 June 2019. In addition, the Committee also agreed to add information that any discharge of oil or oily mixtures into polar waters are prohibited by the Polar Code.

Hence, MEPC 73 adopted **Res.MEPC.307(73)** with the following revised text of paragraph 2.2 of the **2018 Guidelines for the discharge of exhaust gas recirculation (EGR) bleed-off water.**

> *"2.2 Application*
> *These Guidelines should apply to a marine diesel engine fitted with an EGR device having a bleed-off water discharge arrangement, for which the EIAPP Certificate is first issued on or after 1 June 2019. It should be noted that any discharge of oil or oily mixtures into polar waters is prohibited by the Polar Code (see also paragraphs 3.1 and 3.2 of these Guidelines)."*

Guidance on best practice for fuel oil suppliers

MEPC 73 approved **Circular MEPC.1/Circ.875/Add.1 - Guidance on best practice for fuel oil suppliers for assuring the quality of fuel oil used delivered to ships.**

These best practices are intended to assist fuel oil suppliers to ensure the quality of fuel oils delivered to ships which is compliant with the agreed specification and statutory limits. Fuel oil purchasers are responsible for correctly specifying the fuel oil which is to be supplied.

Revision of certification requirements for SCR systems under the NOX Technical Code 2008

MEPC 73 approved **draft amendments to the NOX Technical Code 2008 concerning certification requirements for SCR systems**.

Currently, paragraph 2.2.5.1 of the NOX Technical Code states (with emphasis shown as underlined):

> "2.2.5 NOX reducing devices
> .1 Where a NOX-reducing device is to be included within the EIAPP certification, it must be recognized as a component of the engine, and its presence shall be recorded in the engine's Technical File. The engine shall be tested with the NOX-reducing device fitted unless, due to technical and practical reasons, the combined testing is not appropriate and the procedures specified in paragraph 2.2.4.1 cannot be applied, subject to approval by the Administration. In the latter case, the applicable test procedure shall be performed and the combined engine/NOX-reducing device shall be approved and pre-certified by the Administration

The following draft amendments to paragraph 2.2.5.1 of the NTC 2008 were drafted :

> "2.2.5 NOx reducing devices
> .1 Where a NOX-reducing device is to be included within the EIAPP certification, it must be recognized as a component of the engine, and its presence shall be

recorded in the engine's Technical File. The applicable test procedure shall be performed and the combined engine/NOX-reducing device shall be approved and pre-certified by the Administration taking into account Guidelines developed by the Organization*. However, the pre-certification in accordance with Scheme B as given by the Guidelines developed by the Organization* is subject to the limitations given in paragraph 2.2.4.2.

MEPC 73 also approved, in principle, the **draft MEPC resolution on Amendments to the 2017 Guidelines addressing additional aspects to the NOX Technical Code 2008 with regard to particular requirements related to marine diesel engines fitted with Selective Catalytic Reduction (SCR) Systems (resolution MEPC.291(71))**, with a view to adoption at MEPC 74, in conjunction with the above-mentioned draft amendments to the NOX Technical Code 2008.

The following draft amendments to paragraphs 1.3 and 3.1.1 of the annex to resolution MEPC.291(71) have been agreed :

1 Paragraph 1.3 is replaced with the following:

"1.3 According to paragraph 2.2.5.1 of the NTC 2008, where a NOX-reducing device is to be included within the EIAPP certification, it must be recognized as a component of the engine, and its presence shall be recorded in the engine's Technical File. "

2 Paragraph 3.1.1 is replaced with the following:

"3.1.1 Engine systems fitted with SCR should be certified in accordance with chapter 2 of the NTC 2008. The procedures provided by Scheme A or Scheme B of these Guidelines should be applied. "

Engine test cycles

MEPC 73 noted that IACS, concerning the latest version of IACS Unified Interpretation MPC 51 on engine test cycles as required by paragraph 3.2.1 of the NOX Technical Code 2008, agreed not to pursue the work any further due to a lack of sufficient support for the proposed unified interpretation by Member Governments at PPR 5. IACS withdrew this revision of UI MPC51 on 8 June 2018. The consequence of this withdrawal is that, at this time, the original version of this IACS UI remains extant. However, UI MPC51 is currently under review.

5.2. Consistent implementation of regulation 14.1.3 of MARPOL Annex VI

Ship implementation plan

MEPC 73 approved **MEPC.1/Circ.878-Guidance on the development of a ship implementation plan for the consistent implementation of the 0.50% sulphur limit under MARPOL Annex VI**.

MEPC 72 had authorized the Intersessional Meeting on Consistent implementation of regulation 14.1.3 of MARPOL Annex VI (ISWG-AP 1), which had been held from 9 to 13 July 2018. ISWG-AP 1 prepared this draft MEPC circular. Reference to "practical and pragmatic approach by port State control authorities" was removed from the MEPC circular by the Plenary.

The ship implementation plan would not have a mandatory nature and would not need to be endorsed by the Administration.

Safety matters

Noting the discussion of the ISWG-AP 1 related to the safety implications associated with the use of low-sulphur fuel oil, MEPC 73 invited MSC 100 to consider the outcome of ISWG-AP 1, and take action as appropriate, noting the various initiatives set up by the industry.

Experience Building Phase

MEPC 73 had also for its consideration a proposal to establish an Experience Building Phase (EBP) associated with worldwide availability of safe compliant fuel oil. The submitters of this proposal called for a pragmatic enforcement approach, applied in a consistent manner, until the anticipated new types of fuels and blends compliant with the 0.50% m/m global fuel oil sulphur limit are sufficiently available in the market. The goal is to gain experience in the use of these new fuels and to ensure that unsafe fuels do not enter the market in response to availability pressures.

It was clarified through discussion in Plenary that the proposal was not an attempt to amend the 0.50% sulphur limit nor delay the effective date, with the focus being on the provisions set out in regulation 18.2.1 to 18.2.5 of MARPOL Annex VI. It was meant to seek greater transparency to ensure consistent enforcement action.

Based on these declarations, and acknowledging that the content of the "EBP" should be limited to Regulation 18 only, MEPC 73 has invited further concrete proposals on how to enhance the implementation of regulation 18 of MARPOL Annex VI, in particular on fuel oil quality and reporting of non-availability of compliant fuel oils, including the enhancement of the GISIS module for data collection and analysis.

Early reporting of availability of 2020 compliant fuel oils

Regulation 18 of MARPOL Annex VI on fuel oil availability and quality requires each Party to "take all reasonable steps to promote the availability of fuel oils that comply with this Annex and inform the Organization of the availability of compliant fuel oils in its ports and terminals."

MEPC 73 approved circular **MEPC.1/Circ.880 on Reporting of availability of compliant fuel oils in accordance with regulation 18.1 of MARPOL Annex VI**, and instructed the Secretariat to circulate it.

MEPC 73 urged Parties to MARPOL Annex VI to inform the IMO of the availability of compliant fuel oils in its ports and terminals via GISIS MARPOL Annex VI module well in advance of 1 January 2020, in accordance with regulation 18.1 of MARPOL Annex VI.

5.3. EEDI

EEDI reviews required under regulation 21.6 of MARPOL Annex VI

in accordance with regulation 21.6 of MARPOL Annex VI, at the beginning of phase 1 and at the midpoint of phase 2, IMO had to review the status of technological developments and, if proven necessary, amend the time periods, the EEDI reference line parameters for relevant ship types and the reduction rate;

MEPC 71 agreed accordingly to establish a Correspondence Group on EEDI review beyond phase 2 in order to review the status of technological developments relevant to implementing the EEDI regulations beyond phase 2.

MEPC 73 had for its consideration an interim report from this CG. Some delegations expressed disappointment with this report which was considered as lacking in ambition to the extent that it did not reflect the levels of ambition adopted by MEPC 72 as part of the Initial IMO Strategy on Reduction of GHG emissions from ships. It has been further noted that for some ship sizes, such as large bulk carriers and tankers, there was also lack of data.

The final report of the CG will be submitted to MEPC 74.

MEPC 73 considered the following draft amendments to regulation 21 of MARPOL Annex VI for the EEDI phase 3 requirements, for approval with a view to adoption at MEPC 74.

"**Table 1. Reduction factors (in percentage) for the EEDI relative to the EEDI reference line**

Ship Type	Size	Phase 0 1 Jan 2013 – 31 Dec 2014	Phase 1 1 Jan 2015 – 31 Dec 2019	Phase 2 1 Jan 2020 – 31 Dec 2024	Phase 3 1 Jan 2025 and onwards
Bulk carrier	20,000 DWT and above	0	10	20	30
	10,000 – 20,000 DWT	n/a	0-10*	0-20*	0-30*
Gas carrier	10,000 DWT and above	0	10	20	30[****]
	2,000 – 10,000 DWT	n/a	0-10*	0-20*	0-30* [****]
Tanker	20,000 DWT and above	0	10	20	30
	4,000 – 20,000 DWT	n/a	0-10*	0-20*	0-30*
Container ship	15,000 DWT and above	0	10	20	~~30~~ 40****
	10,000 – 15,000 DWT	n/a	0-10*	0-20*	0-~~30~~ 40* ****
General Cargo ships	15,000 DWT and above	0	10	15	30****
	3,000 – 15,000 DWT	n/a	0-10*	0-15*	0-30* ****
Refrigerated cargo carrier	5,000 DWT and above	0	10	15	30[****]
	3,000 – 5,000 DWT	n/a	0-10*	0-15*	0-30* [****]
Combination carrier	20,000 DWT and above	0	10	20	30[****]
	4,000 – 20,000 DWT	n/a	0-10*	0-20*	0-30* [****]
LNG carrier***	10,000 DWT and above	n/a	10**	20	30[****]
Ro-ro cargo ship (vehicle carrier)***	10,000 DWT and above	n/a	5**	15	30
Ro-ro cargo ship***	2,000 DWT and above	n/a	5**	20	30
Ship Type	Size	Phase 0 1 Jan 2013 – 31 Dec 2014	Phase 1 1 Jan 2015 – 31 Dec 2019	Phase 2 1 Jan 2020 – 31 Dec 2024	Phase 3 1 Jan 2025 and onwards
	1,000 – 2,000 DWT	n/a	0-5*,**	0-20*	0-30*
Ro-ro passenger ship***	1,000 DWT and above	n/a	5**	20	30
	250 – 1,000 DWT	n/a	0-5*,**	0-20*	0-30*
Cruise passenger ship*** having non-conventional propulsion	85,000 GT and above	n/a	5**	20	30[****]
	25,000 – 85,000 GT	n/a	0-5*,**	0-20*	0-30* [****]

* Reduction factor to be linearly interpolated between the two values dependent upon ship size. The lower value of the reduction factor is to be applied to the smaller ship size.
** Phase 1 commences for those ships on 1 September 2015.
*** Reduction factor applies to those ships delivered on or after 1 September 2019, as defined in paragraph 43 of regulation 2.
**** Phase 3 commences for those ships on 1 January 2022.

Note: n/a means that no required EEDI applies. "

Given the lack of data in sufficient numbers to inform the decision, the lack of modulation according to size within certain categories (container ships), the MEPC 73 felt that it was unable to approve the draft amendments, too many proposals remaining into brackets.

As a result, the Chair proposed that discussion resume with MEPC 74 on the basis of the final report of the GC and all the elements that delegations are invited to provide on that occasion.

Minimum power requirements

One relatively cost-efficient option to comply with the strengthened EEDI requirements is the reduction of the installed propulsion power. However, ship safety is of paramount interest and the ship has to retain sufficient propulsion power to ensure safe manoeuvring in adverse weather conditions as also required by regulation 21.5 of MARPOL Annex VI and further specified in the *2013 Interim guidelines for determining minimum propulsion power to maintain the manoeuvrability of ships in adverse conditions* (resolution MEPC.232(65)

MEPC 73 had for its consideration a proposal for an option to limit the shaft power while ensuring a sufficient safety power reserve in adverse weather conditions, in order to resolve potential conflicts between EEDI requirements and minimum required propulsion power.

To resolve the above-mentioned conflict, it is proposed to allow limitations of a ship's shaft power for normal ship operation (below the installed maximum continuous rating (MCR)) for EEDI calculation purposes as defined in paragraph 2.5.1 of the *2014 Guidelines on the method of calculation of the attained EEDI for new ships* (resolution MEPC.245(66), as amended by resolutions MEPC.263(68) and MEPC.281(70)) (2014 EEDI Calculation Guidelines).

This proposal suggests to apply 75% of the limited power as PME for the calculation of the attained EEDI – and consequently also for the determination of the EEDI reference speed. It is proposed to allow for non-permanent shaft power limitation. The full (rated) installed propulsion shaft power shall only be enabled when the safety of the ship is in danger.

The submitters of this proposal will present further elements at MEPC 74.

Guidelines on the method of calculation of the attained EEDI for new ships concerning correction factors for the calculation of the EEDI for ice class ships

Having considered the proposed alternative calculation method for ice class ships designed and constructed based on an open water ship with EEDI certification, MEPC 73 has adopted **Res. MEPC.308(73) – 2018 Guidelines on the method of calculation of the attained Energy Efficiency Design Index (EEDI) for new ships.**

These new guidelines supersede the *2014 Guidelines on the method of calculation of the attained Energy Efficiency Design Index (EEDI) for new ships* adopted by resolution MEPC.245(66), as amended by resolutions MEPC.263(66) and MEPC.281(70), and MEPC.1/Circ.866.

Amendments to MARPOL Annex VI concerning EEDI regulations for ice-strengthened ships

MEPC 73 approved **draft amendments to regulations 2.42 and 19.3 of MARPOL Annex VI concerning EEDI regulations for ice-strengthened ships**, with a view to adoption at MEPC 74.

Paragraph 3 of Regulation 19 is amended as follows:

> Regulation 19 – Application
>
> Regulations 20 and 21 of this Annex shall not apply to ships which have nonconventional propulsion, except that regulations 20 and 21 shall apply to cruise passenger ships having non-conventional propulsion and LNG carriers having conventional or non-conventional propulsion, delivered on or after 1 September 2019, as defined in paragraph 43 of regulation 2. Regulations 20 and 21 shall not apply to ~~cargo ships having ice-breaking capability~~ category A ships as defined in the Polar Code."

Amendments to the 2014 guidelines on survey and certification of the energy efficiency design index (EEDI)

Having adopted 2018 Guidelines on the method of calculation of the attained Energy Efficiency Design Index (EEDI) for new ships, MEPC 73 also prepared the necessary consequential amendments to the 2014 Guidelines on survey and certification of the Energy Efficiency Design Index (EEDI).

Hence, it has adopted **Res. MEPC.309(73) – Amendments to the 2014 guidelines on survey and certification of the energy efficiency design index (EEDI) (Res. MEPC.254(67), as amended by Res. MEPC.261(68))**

The new guidelines are circulated as **MEPC.1/Circ.855/Rev.2 - 2014 Guidelines on survey and certification of the Energy Efficiency Design Index (EEDI), as amended (resolution MEPC.254(67), as amended by resolutions MEPC.261(68) and MEPC.309(73)).**

EEDI database

The supposed paucity of verified EEDI values being reported under the EEDI database is said to undermine the ability of Member States, industry and other stakeholders to analyse EEDI trends using precise and verified data.

To address this problem, it was proposed amendments to MARPOL Annex VI that would require mandatory reporting of verified EEDI values for new ships subject to the EEDI phase 0, phase 1 and future EEDI phases required under regulation 21 of chapter 4 of MARPOL Annex VI.

MEPC 73 agreed, in principal, to the proposed mandatory reporting of EEDI values, and invited further submissions to MEPC 74, commenting on draft amendments to MARPOL Annex VI concerning mandatory reporting of EEDI values.

Item 6 - Further technical and operational measures for enhancing the energy efficiency of international shipping

6.1. Unified interpretations to MARPOL Annex VI related to the data collection system for fuel oil consumption of ships

MEPC 73 approved **Circ. MEPC.1/Circ.795/Rev. - Unified interpretations to MARPOL Annex VI**.

These UIs propose unified interpretations for regulations 5.4.5, 22.2, 22.3, 22A.1, 22A.8 and appendix IX of MARPOL Annex VI on the issuance of the confirmation of compliance for new ships (1), boil-off gas consumed on board ships (2) and access to the disaggregated data (3) :

(1) Ships that are delivered on or after 1 January 2019 should keep on board both a SEEMP that is in compliance with regulation 22.2 and confirmation of compliance as required by regulation 5.4.5.
(2) Data relating to Boil-off Gas (BOG) consumed on board the ship for propulsion or operation is required to be collected and reported as fuel as part of the Data Collection System for fuel oil consumption of ships.
(3) The disaggregated data is not required to be kept onboard the ship provided that the disaggregated data can be made available by the Company.

6.2. IMO Ship Fuel Oil Consumption Database

IMO Secretariat has updated the IMO Ship Fuel Oil Consumption Database to incorporate new communication features concerning a list of ships falling under the scope of regulation 22A of MARPOL Annex VI and the user guidance on the Ship Fuel Oil Consumption GISIS module.

19,000 relevant ships still needed to submit their SEEMP part II before the entry into effect date of 1 January 2019.

Item 7 - Reduction of GHG emissions from ships

7.1. Development of a programme of follow-up actions of the Initial IMO Strategy on reduction of GHG emissions from ships

MEPC 73 has approved the **Programme of follow-up actions of the Initial IMO Strategy on reduction of GHG emissions from ships up to 2023,** as developed by Working Group on Reduction of GHG emissions from ships, at its fourth intersessional meeting (ISWG-GHG4).

The programme of follow-up actions is considered as a planning tool on the work for the Committee and its subsidiary bodies in meeting the timelines identified in the Initial Strategy, and includes expected time frames.

The programme includes streams of activity as follows:

.1 candidate short-term measures (Group A) that can be considered and addressed under existing IMO instruments;
.2 candidate short-term measures (Group B) that are not work in progress and are subject to data analysis;
.3 candidate short-term measures (Group C) that are not work in progress and are not subject to data analysis;
.4 candidate mid-/long-term measures and action to address the identified barriers;
.5 impacts on States;
.6 Fourth IMO GHG Study;
.7 capacity-building, technical cooperation, research and development; and .8 follow-up actions towards the development of the revised Strategy.

MEPC 73 called for concrete proposals :

- on candidate short-term measures to MEPC 74 ;
- on candidate mid-/long-term measures to MEPC 74 and MEPC 75 (as identified in paragraph 4.3 of the Initial Strategy: "certain mid- and long-term measures will require work to commence prior to 2023").

7.2. Impacts on States

Paragraph 4.12 of the Initial Strategy identifies "as a matter of urgency as part of follow-up actions" the specification for an agreement on the procedure for assessing and taking into account the impacts of measures.

Thus, MEPC 73 has invited concrete proposals to MEPC 74 for finalization of the procedure for assessing the impacts on States.

The impact assessment procedure should be addressed in parallel of the development of measures. The assessment must include negative and positive impacts of measures e.g. the positive economic impacts of selling abatement technologies.

The Committee requested the IMO Secretariat to submit an information document to MEPC 74 on existing IMO procedures relevant for impact assessments, e.g. procedure on submission of new outputs, proposals for new Particularly Sensitive Sea Areas (PSSAs) and the designation of Emission Control Areas (ECAs).

7.3. Preparation for the Fourth IMO GHG Study

The Initial IMO Strategy on reduction of GHG emissions from ships (resolution MEPC.304(72)), identifies the initiation of the Fourth IMO GHG Study by MEPC 74 (spring 2019), using data from 2012-2018, with a view to adoption by MEPC 76 (autumn 2020).

MEPC 73 agreed to the holding of an Expert Workshop in preparation for the Fourth IMO GHG Study and requested the IMO Secretariat to organize such workshop including the preparation of its terms of reference.

MEPC 73, recognizing the need for a Steering Committee, and agreed that its terms of reference and call for nominations should be in line with the practice followed for the Third IMO GHG Study.

An indicative timeline for delivery of the Fourth IMO GHG Study is provided below:

- October 2018 MEPC 73 to review a draft outline of the Fourth IMO GHG Study, initiate the development of the Terms of reference and invite financial contributions to undertake study
- May 2019 MEPC 74 to agree to the Terms of reference, establish a Steering Committee, and instruct the Secretariat to issue Invitation to Tender
- June 2019 Deadline for tenders to submit bid
- July 2019 Distribution of bid documents to the Steering Committee for evaluation
- September 2019 Steering Committee members submit tender evaluation to the Secretariat
- October 2019 Contract awarded by Secretariat on the basis of best "Value For Money"
- Spring 2020 MEPC 75 to consider a progress report
- Autumn 2020 MEPC 76 to consider the Fourth IMO GHG Study with a view to approval

Item 8 - Development of an action plan to address marine plastic litter from ships

MEPC 73 has adopted **Res.MEPC.310(73) – Action plan to address marine plastic litter from ships.**

MARPOL Annex V prohibits the discharge of all types of garbage, including all plastics, into the sea from ships and fixed or floating platforms except in the cases explicitly permitted under the Annex (such as food waste and other organic matter that are not harmful to the marine environment). Some sea areas require higher degrees of protection and can be designated as Special Areas under MARPOL.

The capacity of ships to comply with the discharge requirements of MARPOL is dependent on the availability of adequate port reception facilities. In this regard, regulation 8 (Reception facilities) of MARPOL Annex V provides, inter alia, that:

> .1 each Party undertakes to ensure the provision of adequate facilities at ports and terminals for the reception of garbage without causing undue delay to ships, and according to the needs of the ships using them;
>
> .2 SIDS may satisfy the reception facility requirements through regional arrangements when, because of those States' unique circumstances, such arrangements are the only practical means to satisfy the requirements; and
>
> .3 each Party shall notify the Organization for transmission to the Contracting Parties concerned of all cases where the facilities provided under the regulation are alleged to be inadequate.

A 30 had recognized the ongoing problem of marine plastic pollution, as addressed in MARPOL Annex V, which required further consideration as part of a global solution within the framework of ocean governance, in pursuance of the target of Sustainable Development Goal 14 (UN 2030 Agenda for Sustainable Development) to prevent and significantly reduce marine pollution of all kinds by 2025.

MEPC 72 had agreed to include a new output "Development of an action plan to address marine plastic litter from ships" in its 2018-2019 biennial agenda

The Action adopted by MEPC 73 has been developed to contribute to the global solution for preventing marine plastic litter entering the oceans through ship-based activities. This Action Plan provides IMO with a mechanism to identify specific outcomes, and actions to achieve these outcomes. The Action Plan builds on existing policy and regulatory frameworks, and identifies opportunities to enhance these frameworks and introduce new supporting measures to address the issue of marine plastic litter from ships.

The proposed measures are grouped under the following outcomes:

.1 proposals addressing marine plastic litter from fishing vessels;
.2 proposals addressing marine plastic litter from shipping;
.3 proposals intended to improve the effectiveness of port reception facilities and treatment in reducing marine plastic litter;
.4 proposals aimed at enhanced awareness, education and seafarer training;
.5 proposals aimed at improving the understanding of the contribution of ships to marine plastic litter;
.6 proposals aimed at improving the understanding of the regulatory framework applicable to marine plastic litter from ships;
.7 proposals aimed at strengthening international cooperation;
.8 proposals addressing technical cooperation and capacity-building.

The Committee agreed that in line with the time frames provided in Sustainable Development Goal (SDG) 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development, the measures within the draft Action Plan should be completed by 2025.

MEPC 73 has invited proposals on the measures contained within the Action Plan to MEPC 74, and MSC to consider the establishment of a mandatory system for reporting the loss of containers.

It has also instructed the Secretariat, in cooperation with FAO, to request GESAMP to also include shipping-related sources in the scope of work for the GESAMP Working Group on Sea-based Sources of Marine Litter, as a starting point to inform the future study on marine plastic litter from ships.

Item 9 - Development of measures to reduce risks of use and carriage of heavy fuel oil as fuel by ships in arctic waters

MEPC 71 agreed to include a new output on "Development of measures to reduce risks of use and carriage of heavy fuel oil as fuel by ships in Arctic waters" in the 2018-2019 biennial agenda of the Committee.

Canada, Finland and the Russian Federation have provided MEPC 73 with the progress report of an informal correspondence group convened to provide guidance on the process of conducting an impact assessment on Arctic communities and economies of a proposed ban on heavy fuel oil (HFO).

Along with widely accepted and utilized guidance from the European Commission on impact assessment, the following approach has been put forward :

.1 defining the problem;
.2 defining policy objectives;
.3 development of policy options;
.4 analysis of impacts; and

.5 comparison of policy options and recommendation of one option.

CE Delft has published a new study titled "Residual bunker fuel ban in the IMO Arctic waters" focused on assessing the costs and benefits of a ban on the use and carriage of HFO as fuel by ships in Arctic waters.

MEPC 73 agreed to forward the documents submitted to it to PPR and instructed the latter to finalize the impact assessment methodology.

Item 11 - Pollution prevention and response

11.1. Draft amendments to the IBC and BCH Codes

MEPC 73 approved, subject to concurrent decision by MSC 100, the **draft amendments to the international code for the construction and equipment of ships carrying dangerous chemicals in bulk (IBC Code)**, with a view to adoption at MEPC 74.

PPR 5 had finalized draft amendments to the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code) (PPR 5/24/Add.1) mainly consisting of the following:

.1 draft new paragraph 15.15 (Hydrogen sulphide (H2S) detection equipment for bulk liquids);

.2 draft new paragraph 16.2.7, referring to the draft new prewash requirements in MARPOL Annex II (see also paragraph 11.[…]);

.3 the full text of draft revised chapters 17 (Summary of minimum requirements), 18 (List of products to which the Code does not apply), 19 (Index of Products Carried in Bulk) and 21 (Criteria for assigning carriage requirements for products subject to the IBC Code).

MEPC 73 approved, subject to concurrent decision by MSC 100, the **draft consequential amendments to the Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (BCH Code)**, with as well a view to adoption at MEPC 74.

11.2. Carriage of energy-rich fuels

MEPC 73 approved **MEPC.1/Circ.879-Guidelines for the carriage of energy-rich fuels and their blends.**

PPR 5, as part of its work on the development of guidance for assessing and classifying products under Annexes I and II of MARPOL to ensure that they were covered under the appropriate MARPOL Annex, had prepared the abovementioned guidelines.

The Committee has endorsed the consequential inclusion of a new annex 12 to the MEPC.2/Circular on the Provisional categorization of liquid substances in accordance with MARPOL Annex II and the IBC code, for the purpose of listing substances that, following assessment by the ESPH Working Group, were deemed to be subject to MARPOL Annex I.

11.3. Draft amendment to MARPOL Annex II

MEPC 73 has approved the **draft amendments to MARPOL Annex II, relating to cargo residues and tank washings of persistent floating products with a high viscosity and/or a high melting point**, with a view to subsequent adoption at MEPC 74.

Definition of persistent floater

Having noted that the term "persistent floater" did not occur in MARPOL Annex II, the definition for persistent floater that had been previously agreed at PPR 4 and ESPH 23 was retained as draft new regulation 1.15 of MARPOL Annex II.

Draft new prewash requirements and areas of application

The chapeau of draft new paragraph 7.1.4 of regulation 13 of MARPOL Annex II was modified to clarify that the draft requirements for a prewash would only apply to a subset of category Y substances that are persistent floaters that have a high viscosity and/or a high melting point, as identified in chapter 17 of the IBC Code by the inclusion of "16.2.7" in column "o", rather than to all such substances.

Appendix IV of MARPOL Annex II

With regard to the Standard format for the Procedures and Arrangements Manual (Appendix IV of MARPOL Annex II), the following new Note 4 is included in Addendum A of Appendix IV:

"Note 4: Within the areas specified in regulation 13.9 of Annex II, regulation 13.7.1.4 applies to substances that are identified by "16.2.7" in column "o" of chapter 17 of the IBC Code."

Appendix VI of MARPOL Annex II

Category Y persistent floaters with a viscosity greater than or equal to 50 mPa•s at 20ºC and/or a melting point greater than or equal to 0ºC, shall be treated as solidifying or high-viscosity substances for the purposes of the prewash. New part C of Appendix VI of MARPOL Annex II is modified accordingly.

11.4. Revised guidelines for the application of MARPOL Annex I requirements to floating production, storage and offloading facilities (FPSOs) and floating storage units (FSUs)

MEPC 73 has approved Res. **MEPC.311(73) – 2018 Guidelines for the application of MARPOL ANNEX I requirements to floating production, storage and offloading facilities (FPSOS) and floating storage units (FSUS).**

The text of the draft revised Guidelines was prepared by USA, with a view to clarifying the application of the stability instrument requirements in regulation 28.6 of MARPOL Annex I and to updating the Guidelines to address the application of all other MARPOL Annex I amendments since MEPC 54.

11.5. Electronic record books under MARPOL

MEPC 73 had for its consideration the draft MEPC resolution on Guidelines for the use of electronic record books under MARPOL and the draft amendments to MARPOL Annexes I, II, V and VI, and the NOX Technical Code, concerning electronic record books (ERBs), as finalized at PPR 5.

United States expressed its strong opposition to the approval in principle of the draft Guidelines for the use of electronic record books under MARPOL and the associated draft amendments to MARPOL and the NOX Technical Code, as in their view the use of ERBs that had been approved taking into account non-mandatory guidelines, would not provide the same degree of accessibility, consistency, clarity, reliability, integrity and accountability as hard copy records presently required by MARPOL.

However, MEPC 73 approved in principle the **draft MEPC resolution on Guidelines for the use of electronic record books under MARPOL**, with a view to adoption at MEPC 74.

In conjunction, MEPC 73 also approved **draft amendments to MARPOL ANNEXES I, II, V and VI and the NOX technical code (electronic record books)**

Some delegates expressed concerns regarding the use of guidelines, which were inherently non-binding, for the approval of electronic record books. Hence,

Complementary, MEPC 73 approved, in principle :

- draft amendments to the *Procedures for Port State Control, 2017* (resolution A.1119(30)), (forwarded to III for inclusion in the future amendments to the *Procedures for Port State Control, 2017) ;*

- draft amendments to the *2009 Guidelines for port State control under the revised MARPOL Annex VI* (resolution MEPC.181(59)), with a view to adoption in conjunction with other amendments to the 2009 Guidelines.

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MEPC 73 decided to establish the following intersessional correspondence groups (CG) and working groups (WG):

Intersessional Working Group on Reduction of GHG emissions from ships (ISWG-GHG 4), instructed to :

- consider concrete proposals for assessing the impacts on States with a view to the finalization of the procedure;
- finalize the draft terms of reference for the Fourth IMO GHG Study with a view to approval at MEPC 74;
- consider concrete proposals on candidate short-term measures;
- consider concrete proposals on candidate mid-/long-term measures;
- initiate the development of further actions on capacity-building, technical cooperation, research and development, including support for assessment of impacts and supports for implementation of measures;

Correspondence Group on Fuel oil quality, instructed to :

- finalize the draft guidance on best practice for Member States/coastal States

Correspondence group on marine plastic litter, instructed to :

- identify issues to be considered under an IMO Study on marine plastic litter from ships;
- determine the most appropriate mechanism to undertake the study, in particular whether a literature review and/or a quantitative study should be pursued;
- develop a regulatory framework matrix which identifies all international regulatory instruments and best practices associated with the issue of marine plastic litter from ships.

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