

The IMO Marine Environment Protection Committee (MEPC) held its 69th session from 18 to 22 April. This Brief provides an overview of the more significant issues progressed at this session. A full report of the meeting will be included in the next ABS International Regulatory News Update.

MARPOL Amendments Adopted

The following amendments were adopted during the Committee meeting with an entry into force date of 1 September 2017:

Discharge of sewage from passenger ships within a special area

Amendments to MARPOL IV regulation 11.3 provide application criteria for new and existing passenger ships which are defined in new regulation 1.10. The criteria relative to the number of passengers has not been amended, i.e. a passenger ship is still a ship which carries more than twelve passengers. The amendments specify that a new passenger ship is one which:

- the building contract is placed, or in the absence of a building contract,
- the keel of which is laid, or which is in similar stage of construction, on or after 1 June 2019; or
- delivers on or after 1 June 2021, regardless of the building contract or keel laying date.

An existing passenger ship is not a new passenger ship.

The discharge of sewage from a passenger ship within a Special Area is prohibited except when the ship has in operation an approved sewage treatment plant certified by the Administration to meet the effluent standards as provided for in resolution MEPC.227(64) including the standards of Section 4.2 of the “2012 Guidelines on Implementation of Effluent Standards and Performance Tests for Sewage Treatment Plants”.

The discharge compliance dates for the Baltic Sea Special Area are 1 June 2019 for new passenger ships and 1 June 2021 for existing passenger ships with one exception. In this regard, existing passenger ships en route entering the Baltic Sea Special Area which proceed directly to ports under the jurisdiction of the Russian Federation within the Baltic Sea Special Area (i.e. ports east of longitude 28° 10' within the special area) and those leaving the special area without making any other port calls within the special area are to comply on 1 June 2023

MARPOL Annex IV – International Sewage Pollution Prevention Certificate

Amendments to MARPOL IV include the reference to the “2012 Guidelines on Implementation of Effluent Standards and Performance Tests for Sewage Treatment Plants” (MEPC.227(64)) under item 1.1 of the certificate to document the standard of any sewage treatment plant complying with these guidelines with the option to reflect compliance with the enhance requirements applicable to passenger ships discharging within the Baltic Sea Special Area.

TIER III engines

Amendments to MARPOL VI regulation 13.5 (Tier III) mandate the recording of specific information for marine diesel engines which are:

- installed on board ships constructed on/after 1 January 2016 operating in an ECA and are certified to both Tier II and Tier III; or
- certified to Tier II only (in the case of replacement engines only, if it is not possible for such a replacement engine to meet the standards of Tier III).

Information is to be recorded in a logbook prescribed by the Administration. The status (on/off) of Tier III engine operation is to be recorded:

- at entry into and exit from an emission control area; or,
- when the on/off status changes within an emission control area, along with the date, time and position of the ship.

The above is similar to requirement in MARPOL Annex VI, regulation 14.6, for recording fuel oil changeover prior to entry into, and departure from, an emission control area.

Testing of Gas Fuelled and Dual Fuel engine

Amendments to the NOx Technical Code which enable certification of gas fuelled and dual fuel engines were adopted which include revisions to the *Parent engine test report and test data* form. In this regard, the Committee agreed that the revised model form for the engine test report is only applicable to engines installed on or after the entry into force date of the amendments, 1 September 2017.

Ballast Water Management

Status of Ratification

The Convention has been ratified by 49 countries representing 34.79% of the world fleet. Conditions for entry into force have been met for the threshold of 30 States, but an additional 0.21% tonnage is still needed to meet the 35% GT of the world fleet threshold. The value of 34.79% represents a drop in the tonnage previously reported and is a consequence of tonnage fluctuations that are now being recalculated monthly as a result of IMO's revised policy which was implemented from the start of 2016. Previously, these statistics were calculated at the end of the year.

BW Management Convention Implementation

The committee agreed to a "Roadmap" to be used in the development of measures to facilitate the implementation of the Convention. Additional submissions were requested by the Committee for the outstanding issues, such as the non-penalization of ships fitted with treatment systems type approved under the current G8 Guidelines (MEPC.174(58)) -- the so-called *early movers* -- with a view to finalizing any further guidance on implementation at MEPC 70 which meets from 24 to 28 October 2016.

Type Approval Guidelines (G8)

Good progress was made on the revision of the G8 Guidelines to be more robust and with a view of the potential mandatory application of the same. An important development was draft text addressing the scope of documentation to specify the limits of operating conditions and the critical parameters for system design limitations. Work remains in the determination of an agreed definition of viable organism as well as clarification of the circumstances when a BWMS may be bypassed including how such sequence of events should be recorded.

The Committee agreed to re-establish the Correspondence Group to further progress revisions to G-8 with the view to finalization at MEPC 70 in October 2016. Additionally, the establishment of an intersessional working group was agreed and, subject to endorsement by the IMO Council, is set to be held 17-21 October 2016.

Draft Amendments on BWM Convention – Implementation Scheme

The proposed amendments to regulation B-3 of the BWM Convention, which reflect the recommended implementation scheme in resolution A.1088(28), were drafted for consideration during this session. The draft amendments to regulation B-3 refer to a date of the renewal survey determined by the Committee. This date is specified by a draft MEPC resolution as the date of the first renewal survey for the ship associated with the International Oil Pollution (IOPP) Certificate.

The Committee approved the draft amendments to regulation B-3 concerning the implementation scheme of the D1 and D2 treatment standards which will be kept in abeyance until formal circulation occurs immediately upon entry into force (EIF) of the BWM Convention. Adoption of the approved amendments will then occur at the MEPC session following entry into force. A summary of the scheme is shown below:

Ship Construction Date	Compliance on/after EIF	Compliance on/after the First IOPP Renewal Survey after EIF
< EIF	D-1 or D-2	D-2
≥ EIF	D-2	D-2

Ballast Water Management Systems (BWMS) Approvals

It was reported that 65 ballast water management systems have been type approved to comply with the Convention's D-2 biological standard. Final approval was granted to 3 systems at this session of MEPC:

- *ECS-HYCHLOR™ System*, submitted by Republic of Korea (MEPC 69/4), consists of filtration to remove organisms and suspended matter larger than 75 µm and side-stream electrochlorination unit to inject total residual oxidants (TRO) into the ballast water at a concentration of not more than 9.5 mg/L as Cl₂ during treatment. Prior to discharge, the treated water is neutralized with sodium thiosulfate so that the concentration is not more than of 0.1 mg/L as Cl₂.
- *NK-Cl BlueBallast System*, submitted by Republic of Korea (MEPC 69/4/1), treats ballast water with the active chemical incorporating sodium dichloroisocyanurate (NaDCC). The NK-Cl System consists of a NaDCC storage and dissolving system; an injection system; and neutralization. The NaDCC concentration is maintained at not more than 15 mg/L as Cl₂ during treatment. Prior to discharge, the treated water is automatically neutralized with sodium thiosulfate so that TRO concentration is not more than of 0.2 mg/L as Cl₂. Filtration is not used for treatment.
- *ATPS-BLUE_{sys}*, submitted by Japan (MEPC 69/4/2), injects sodium hypochlorite generated by the electrolysis unit at a concentration of 12 mg/l as Cl₂. Ballast water may be discharged immediately after treatment provided it is neutralized with sodium thiosulfate to not more than 0.2 mg/L as Cl₂. Filtration is not used for treatment.

Air Pollution and Energy Efficiency

Operational efficiency standards for international shipping

The Committee approved draft amendments to MARPOL Annex VI which, if adopted at the next session of the MEPC in October 2016, will establish a mandatory requirement for all ships of 5000 GT and above on international voyages to collect data related to fuel consumption beginning as early as 1 January 2019. At the end of each calendar year, the Company will be required to aggregate the collected data into annual values, and report the data to the ship's flag Administration for subsequent transmission to a central database managed by the IMO. In addition to fuel consumption data for each type of fuel used onboard the ship (HFO, MGO, LNG, etc.), information regarding distance travelled and service hours as a proxy for transport work will also need to be collected.

The regulations will require each ship to update its SEEMP prior to the beginning of the first reporting period, in order to document the methodologies that will be used for collecting the required data and reporting that data to the flag Administration. A correspondence group has been established to prepare revisions to the SEEMP Guidelines that will provide guidance for developing the data collection and reporting methodologies for the ship, as well as to clarify and further define the proxy data that needs to be collected (e.g. berth to berth, hours not at berth). Additional supporting guidelines will also need to be developed over the next several sessions to support the draft amendments and address items such as: data verification procedures, standard methodologies for transmitting the annual data, management of the IMO database, and assessment of ships registered with a flag Administration that is not a Party to MARPOL Annex VI

The regulations will also require a ship to be issued a Statement of Compliance when the ship submits the required data to the Administration and the data has been verified. Additional provisions in the regulations were added to address instances where a change of ownership and/or change of flag takes place within a calendar year. In such a case, the reporting and certification responsibilities are to be split between the respective Administrations for their corresponding reporting periods within the calendar year in a manner to ensure confidentiality of collected data is maintained.

Engine Certification Electronic Maps

Recognizing that the operational profile of modern electronically controlled engines can be programmed to behave differently at the various loads, the Committee considered a proposal for the need for guidelines for the operation of engines with more than one engine operational profile. Such different engine settings were addressed by the Committee as "Maps" which could be optimized for fuel consumption, e.g. low load and high load operations. Some members expressed their concern relative to the possibility of an increment of NO_x emissions when the engine operates at certain "Map". While the members opinions were split within the Committee, industry interventions informed the Committee that engines already have more than one certified electronic map, for example, for the application of dual fuel operation, SCR operation for Tier III, etc. The Committee therefore decided to refer the documents to the 4th session of the PPR Sub-Committee to be held in January 2017.

Fuel Oil Matters

1. Worldwide Average Sulphur Content - For 2015, the average sulphur content of the tested residual fuels decreased slightly from 2.46% to 2.45%. The three-year rolling average of the sulphur content for residual fuel decreased to 2.45% from 2.47% in 2014. For 2015, the yearly average sulphur content of the tested *distillate fuels* has decreased from 0.12% to 0.08%. The three-year rolling average of the sulphur content for distillate fuel decreased to 0.11% from 0.13% in 2014.

2. Availability Under the provisions of MARPOL VI, Regulation 14, the availability of fuel oil to meet the global 0.5% sulphur limit in 2020 or 2025 is to be determined by the Committee in 2018. A Steering Committee (regionally represented by Member States) began its review of the availability of 0.5% sulphur fuel oil under terms of reference agreed at MEPC 68 with a view to submission of a report to MEPC 70 to be held in October 2016. The demand for compliant fuel oil is to be determined based on bottom-up modeling (fuel consumption and emissions from individual ship movements) and the supply of compliant fuel oil will include geographical fuel availability based on current and projected refinery capacity. During MEPC 69, the Committee noted the progress of the Steering Committee and agreed in principle that a final decision on the implementation of the 0.5% fuel sulphur limit will be made at MEPC 70.

3. Quality Control – MEPC 68 considered draft non-mandatory guidelines for Governments to apply to enhance the quality control of marine fuel oil suppliers within their jurisdiction and to consider challenges under current legal frameworks which may limit some Governments’ ability to implement such controls. The draft guidelines proposed a three-level approach to apply to determine the quality of the supplier. During MEPC 69, the Committee considered and noted the progress of the correspondence group established during the last session and the further development of the three-level approach to the guidelines covering fuel oil suppliers, fuel oil purchasers and Member/Coastal States. However there was divided opinion on the adequacy of the legal framework under MARPOL Annex VI. The Committee’s decision at this stage was to reestablish the correspondence group to further develop the best practices guidelines, but not to discuss the adequacy of the legal text and to report to MEPC 71 in 2017.

EEDI Review

The Interim Report on the review required by Regulation 21.6 of MARPOL Annex VI, which recommended no change to the time periods and reduction rates of future Phases, was considered by the Committee. A number of Delegates expressed the view that already today a large number of ship types could meet Phase 2 criteria by using a variety of energy-saving technologies currently available. Averaged results for the EEDI values of the ship types subject to Phase 0 (as of 27 May 2015) evaluated against the Phase 2 criteria are summarized in the following table:

Ship Type	Actual EEDI value vs Phase 2 Required EEDI (average)	# of Phase 0 Ships evaluated against Phase 2 Required EEDI	% of Phase 0 ships that already meet Phase 2 Required EEDI
Container	42% below	14	100%
General Cargo	46% below	7	100%
Tanker	27% below	26	88%
Gas Carrier	28% below	7	100%
Bulk Carrier	19% below	128	50%
Ro-Ro Cargo	n/c	1	0%
Others	n/c	n/c	n/c

In light of a number of questions raised on the extent of the data in the EEDI database, the Committee agreed that the decision would be deferred to MEPC 70 to consider the further report from the re-established correspondence group.

Exhaust Gas Cleaning System (EGCS) Guidelines

The Committee considered a proposal to amend the EGCS guidelines adopted as MEPC.259(68), together with a proposal to address operational issues such as transitory non-compliance or accidental breakdown, either within the EGCS Guidelines or within the Annex VI PSC Guidelines. Despite some concerns expressed on the extent of further amendments to the EGCS Guidelines, the Committee agreed to specify further amendments of the EGCS Guidelines and possible consequential amendments to the PSC Guidelines.

EEDI Calculations for Dual Fuel Engines

A proposal to amend the Guidelines for calculation of the attained EEDI for new ships fitted with dual fuel engines was considered by the Committee. Due to the need for further clarifications, amendments and corrections to errors, the Committee agreed that the amendment should be further developed and considered at MEPC 70.

EEDI Exemption

The Committee approved a draft circular allowing exemption from the requirements of Chapter 4 of MARPOL Annex VI to those ships not normally engaged on international voyages and which may need to make a single international voyage in exceptional circumstances, for example at delivery, change of owner/operating area or for recycling.

Unified Interpretations

For application of resolution MEPC.227(64) *"2012 Guidelines on implementation of effluent standards and performance tests for sewage treatment plants"*, the phrase *"installed on or after 1 January 2016"* is interpreted as follows:

- Installations on board ships the keels of which are laid or which are at a similar stage of construction on or after 1 January 2016.
- For other ships, installations with a contractual delivery date to the ship on or after 1 January 2016 or, in the absence of a contractual delivery date, the actual delivery of the equipment to the ship on or after 1 January 2016.

The accuracy of the 15 ppm bilge alarms under resolution MEPC.107(49), checked at IOPP renewal surveys according to the manufacturer's instructions in 4.2.11, is interpreted as follows considering resolution A.1104(29) *"Survey Guidelines under the Harmonized System of Survey and Certification (HSSC), 2015"*:

- The validity of calibration certificate should be checked at IOPP annual/intermediate/renewal surveys.
- The accuracy of 15 ppm bilge alarms is to be checked by calibration and testing of the equipment conducted by a manufacturer or persons authorized by the manufacturer and should be done at intervals not exceeding five years or within the term specified in the manufacturer's instructions, whichever is shorter.)