



MARINE & OFFSHORE DIVISION MANAGEMENT
L-C&R

PPR 5 – 5 TO 9 FEBRUARY 2018
INSIGHT OF THE MAJOR OUTCOMES OF THE FIFTH SESSION OF THE IMO SUB-COMMITTEE ON POLLUTION PREVENTION AND RESPONSE (PPR 5)

SUMMARY

Very important progresses were achieved at PPR 5 in matter of prevention of pollution of air from ships (**item 7 and, 13**). PPR 5 agreed to :

- a **prohibition of the carriage of non-compliant fuel oil for combustion purposes with a sulphur content exceeding 0.50%** with a view for submission to MEPC 72 for approval as an urgent matter ;
- a **draft reporting protocol for voluntary measurement studies to collect Black Carbon** data.

It has developed the outline of draft **Guidelines for consistent implementation of regulation 14.1.3 of MARPOL Annex VI** which will be complemented at an intersessional meeting on consistent implementation of regulation 14.1.3 of MARPOL Annex VI which will be held from 9 to 3 July 2018.

Still concerning MARPOL Annex VI (**item 9 and 10**), PPR 5 agreed to :

- draft 2018 **Guidelines for the discharge of exhaust gas recirculation (EGR)** bleed-off water, for submission to MEPC 73, with a view to adoption;
- draft amendments to the NOX Technical Code 2008, for approval at MEPC 73, with a view to adoption at MEPC 74 ;
- draft consequential amendments to the 2017 **Guidelines addressing additional aspects to the NOX Technical Code 2008 with regard to marine diesel engines fitted with Selective Catalytic Reduction (SCR)** Systems (resolution MEPC.291(71)), for consideration by MEPC 73 with a view to approve in principle and adoption at MEPC 74.

Concerning MARPOL Annex II (**item 3 and 4**), PPR 5 agreed to :

- the **IBC code draft new paragraph 15.15, draft revised chapters 17, 18, 19 and 21**, and the consequential draft amendments emanating from the development of the draft MARPOL Annex II amendments, for submission to MEPC 73 and MSC 100, with a view to approval and subsequent adoption ;
- the consequential draft amendments to the BCH Code ;
- the draft MEPC circular on **Guidelines for the carriage of energy-rich fuels and their blends**, for submission to MEPC 73 with a view to approval.

Concerning BWM issue (**item 5, 6 and 23**), PPR5 agreed to the draft Guidance on **System Design Limitations of ballast water management systems and their monitoring** for submission to MEPC 73 with a view to approval and dissemination as a BWM.2 circular.

PPR 5 has also agreed to :

- draft MEPC resolution for **Revised guidelines for the application of MARPOL Annex I requirements to FPSOs and FSUs**, for submission to MEPC 73, with a view to adoption (**item 14**) ;
- the draft MEPC resolution on the **Guidelines for the use of electronic record books under MARPOL**, for submission to MEPC 73 for consideration, with a view to approval in principle and subsequent adoption at MEPC 74 in conjunction with associated draft amendments to MARPOL and the NOX Technical Code (**item 18**).

Item 3 - Safety and pollution hazards of chemicals and preparation of consequential amendments to the IBC code

Relying on the reports on the outcome of the twenty-third session of the Working Group on the Evaluation of Safety and Pollution Hazards of Chemicals (ESPH 23) that was held from 16 to 20 October 2017, PPR 5 concurred with :

- the evaluation of products and their respective inclusion in lists 1, 2, 3 and 5 of MEPC.2/Circ.23 ;
- the evaluation of cleaning additives and their inclusion in annex 10 of MEPC.2/Circ.23.

PPR 5 established the Working Group on the Evaluation of Safety and Pollution Hazards, established to address the following matters.

Revision of the IBC code – chapters 17, 18, 19 and 21

MSC 98 and MEPC 71 had approved, in principle, the draft revised chapter 21 of the IBC Code, pending finalization of the revision of chapters 17 and 18 of the Code, for subsequent circulation of all three revised chapters, with a view to adoption.

The WG has reviewed chapter 18 of the IBC Code and confirmed the entries that had been moved to draft revised chapter 17. In addition, it prepared a consolidated draft revised chapter 19 of the IBC Code

PPR 5 agreed to the IBC code draft new paragraph 15.15, draft revised chapters 17, 18, 19 and 21, and the consequential draft amendments emanating from the development of the draft MARPOL Annex II amendments, for submission to MEPC 73 and MSC 100, with a view to approval and subsequent adoption

PPR 5 also agreed to the consequential draft amendments to the BCH Code, for submission to MEPC 73 and MSC 100, with a view to approval.

Energy-rich fuels

The WG agreed that general guidance on the assessment process that would be followed by the ESPH Working Group for determining whether products should be covered by MARPOL Annex I or II are necessary. The WG prepared a draft MEPC circular on Guidelines for the carriage of energy-rich fuels and their blends.

PPR 5 agreed to the draft MEPC circular on *Guidelines for the carriage of energy-rich fuels and their blends*, for submission to MEPC 73 with a view to approval

The WG agreed that a new annex 12 to the MEPC.2/Circular should list the substances that, following assessment by the ESPH Working Group, are deemed to be subject to MARPOL Annex I.

PPR 5 agreed to the inclusion of a new annex 12 to the MEPC.2/Circular for the purpose of listing substances that, following assessment by the ESPH Working Group, are deemed to be subject to MARPOL Annex I, subject to approval of the draft MEPC circular on Guidelines for the carriage of energy-rich fuels and their blends by MEPC 73.

Item 4 - Review of MARPOL Annex II requirements that have an impact on cargo residues and tank washings of high viscosity and persistent floating products

PPR 4 had made progress in developing draft amendments to MARPOL Annex II, as well as consequential amendments to the IBC Code, to address issues related to the discharge of high-viscosity and solidifying persistent floating substances, taking into account the general support for a phased approach.

PPR 5 was invited to continue its work, taking into account the relevant outcome of the twenty-third session of the ESPH. ESPH had made progress in developing the above-mentioned draft amendments to MARPOL Annex II and the IBC Code, including the phased approach that combined a provisional list of substances together with examples of specific geographical zones of application.

PPR 5 instructed WG ESPH it has established at this session to further develop the draft amendments to MARPOL Annex II and the associated draft amendments to the IBC Code related

to the discharge of cargo residues and tank washings of high-viscosity, solidifying and persistent floating products, with a view to finalization.

Review of MARPOL Annex II requirements that have an impact on cargo residues and tank washings of high viscosity and persistent floating products

Definition of persistent floater

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

Draft new prewash requirements and areas of application

The WG modified the chapeau of draft new paragraph 7.1.4 of regulation 13 of MARPOL Annex II 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

The ESPH was of the view that the requirements clearly applied only to ships within the geographical areas specified in draft regulation 13.9.

With regard to the Standard format for the Procedures and Arrangements Manual (Appendix IV of MARPOL Annex II), the WG has prepared the following new Note 4 for inclusion 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

ESPH agreed that Category Y persistent floaters with a viscosity greater than or equal to 50 mPa·s at 20°C and/or a melting point greater than or equal to 0°C, shall be treated as solidifying or high-viscosity substances for the purposes of the prewash. The draft new part C of Appendix VI of MARPOL Annex II should be modified accordingly.

PPR 5 agreed to the draft amendments to MARPOL Annex II, for submission to MEPC 73 and MSC 100, with a view to approval and subsequent adoption.

PPR 5 also noted the consequential amendments to the BCH Code corresponding to draft new paragraph 16.2.7 of the IBC Code.

Agenda item 5 - Revised guidance on ballast water sampling and analysis

MEPC 65 approved a BWM circular on *Guidance on ballast water sampling and analysis for trial use in accordance with the BWM Convention and Guidelines* (G2) (BWM.2/Circ.42/Rev.1) and agreed in principle to a trial period in connection with this Guidance.

MEPC 68 agreed, through the Roadmap for the implementation of the Convention, to expand this trial period into an experience-building phase (EBP). MEPC 71 adopted resolution MEPC.290(71), establishing the experience-building phase associated with the BWM Convention and encouraged Member States and interested parties to commence data gathering in anticipation of the future approval of a draft data gathering and analysis plan.

PPR 5 had for its consideration additional information on the representative sampling of ballast water for compliance with regulation D-2, and a proposal of amendments to BWM.2/Circ.42/Rev.1.

PPR 5 instructed the Working Group on Ballast Water Management and Anti-fouling Systems to consider amendments to the *Guidance on ballast water sampling and analysis for trial use in accordance with the BWM Convention and Guidelines* (G2) (BWM.2/Circ.42/Rev.1), taking into account that several delegations expressed the view that it may be premature to consider amendments to this Guidance. Some delegations estimated that it would be better to address

the issues raised in the ISO standard 11711, currently under development, rather than in a separate IMO guidance document.

Hence, the WG agreed that the best course of action would be not to revise BWM.2/Circ.42/Rev.1 at this stage, while the matter may be reconsidered in the future, once ISO standard completed and available.

The Plenary concurred to this view.

Agenda item 6 - Revised guidance on methodologies that may be used for enumerating viable organisms

MEPC 71 had approved BWM.2/Circ.61 on *Guidance on methodologies that may be used for enumerating viable organisms for type approval of ballast water management systems*.

It did not agree to the proposal to include two additional methodologies in the Guidance, considering that more information was needed on the details and validations of these methodologies. This issue was deferred to PPR 5.

Netherlands has provided to PPR 5 additional information on both of these methodologies, the FCM method for particle characterization and the PAM method for phytoplankton activity measurement.

The delegation of the Netherlands confirmed that the two methods are meant to be used together and not separately, and that no validation of the combination of the two methods has been carried out. In this regard, the Working Group on Ballast Water Management and Anti-fouling Systems did not agree to add the FCM and PAM methods in BWM.2/Circ.61 at this stage.

PPR 5 has invited Netherlands to submit further information at a next session on the validation of the FCM and PAM methods as one combined method.

Agenda item 7 - Consideration of the impact on the Arctic of emissions of black carbon from international shipping

MEPC 62 agreed to a work plan to consider the impact on the Arctic of Black Carbon emissions from international shipping and instructed the BLG (now PPR) Sub-Committee to develop a definition of Black Carbon and to identify the most appropriate measurement method(s) for international shipping and investigate appropriate control measures. The Bond et al. definition of Black Carbon was proposed by PPR 2 and approved by MEPC 68.

Finalization of the Reporting protocol for voluntary measurement studies to collect Black Carbon data

The Plenary instructed the Working Group on Prevention of air pollution from ships to finalize the Reporting protocol.

PPR 5 agreed to the draft reporting protocol for voluntary measurement studies to collect Black Carbon data, prepared by the WG, which would be made available on both the IMO and EUROMOT websites.

Identification of the most appropriate method for measuring Black Carbon emissions from international shipping

The Plenary instructed the WG on Prevention of air pollution from ships to further progress, with a view to finalization, the identification of the most appropriate methods for measurement of Black Carbon emissions from international shipping, for consideration by the MEPC.

The WG identified the most appropriate Black Carbon measurement methods for data collection, focusing on fuel oils with a maximum sulphur content of 0.50% m/m, as Filter Smoke Number (FSN), Photo Acoustic Spectroscopy (PAS) and Laser Induced Incandescence (LII).

But due to the complexity of measuring Black Carbon emissions it was not possible to be sure of a method's accuracy and repeatability. Hence, the list of appropriate measurement methods identified by the PPR should not be exhaustive, owing also to the fact that new measurement methods may become available in the future.

PPR 5 agreed on this position.

Thus, a standardized measurement protocol would need to be developed before any of the recommended methods could be used to monitor or directly limit the mass concentration of Black Carbon emissions from marine engines or ships.

PPR 5 encouraged Member States and international organizations to continue to collect Black Carbon data, using the agreed reporting protocol and the identified measurement methods, and submit relevant data to PPR 6. PPR 5 agreed on this proposal.

Investigation of appropriate control measures to reduce the impact of Black Carbon emissions from international shipping

PPR 6 is expected to consider proposals and finalize the investigation of appropriate control measures to reduce the impact of Black Carbon emissions from international shipping for consideration by the MEPC.

Some delegates have considered that it is too early to adopt control measures and interested parties needed to continue to gather more data and gain experience. A correspondence group would be more beneficial.

Acknowledging to this proposal, PPR 5 has established a Correspondence Group on Investigation of appropriate control measures to reduce the impact of Black Carbon emissions from international shipping, with the following terms of reference:

- identify candidate control measures to reduce the impact of Black Carbon emissions from international shipping ;
- assess the feasibility and appropriateness of the identified candidate control measures, with a view to finalization of the investigation of appropriate control measures at PPR 6.

Item 8 - Standards for shipboard gasification of waste systems and associated amendments to regulation 16 of MARPOL ANNEX VI

PPR 4, having considered draft Standards for shipboard gasification waste to energy systems and associated draft amendments to regulation 16 of MARPOL Annex VI on shipboard incineration, had agreed that amendments to regulation 16 should not be confined to one specific technology. It had established a Correspondence Group which was instructed to further develop generic draft Standards for shipboard gasification of waste systems and associated amendments to regulation 16 of MARPOL Annex VI and IAPP Certificate.

A number of common themes could be identified in the CG :

- the need for a technology neutral approach;
- common terms for technology for regulation 16 that will need to be considered;
- air emission standards should not be determined by the technology in use;
- the list of generally prohibited substances need to be broadened to not only cover incineration but other technologies.

Several participants noted that regulation 16 may be difficult to amend in order to include both incineration and gasification processes. It was emphasized that the current incineration provisions should be left intact, and that air emission standards should remain goal-based and technology neutral.

Due to the variety of opinions both on the regulatory and technology aspects, the CG had not been able to produce an updated version of the draft Standards

PPR 5 agreed to re-establish the Correspondence Group to pursue the work on generic draft Standards.

Item 9 - Guidelines for the discharge of exhaust gas recirculation bleed-off water

PPR 4 had agreed to the draft MEPC resolution on *2017 Guidelines for the discharge of exhaust gas recirculation (EGR) bleed-off water*, for consideration by MEPC 71, with a view to adoption.

MEPC 71 instructed PPR 5 to reconsider and finalize the draft Guidelines, taking comments expressed by the Committee.

The Plenary has instructed the WG on prevention of air pollution from ships to carry out finalization of the draft Guidelines.

The WG converged to a draft text that represented a compromise agreement. It must be recalled that this bleed-off water is a MARPOL Annex VI waste stream and that it is commonly understood under MARPOL that it should not be integrated with the existing bilge water system. However, the CG has noted that there were precedents for drain water ending up in bilge water.

PPR 5 agreed to the draft *2018 Guidelines for the discharge of exhaust gas recirculation (EGR) bleed-off water*, for submission to MEPC 73, with a view to adoption.

The WG examined the listing for the Technical File in paragraph 2.2.4 of NTC 2008 to consider the link between the EGR Guidelines and the NTC 2008, noting that there is currently nothing in the NTC 2008 to direct flag State or port State surveyors to the EGR NOX emission control system. Hence, amendments to the NTC 2008 would be needed.

The Plenary shared this consideration.

The HSSC and port State control Guidelines do not need to be amended, as amending the NOX Technical File would be sufficient to address the demonstration of compliance.

Item 10 - Revised certification requirements for SCR systems under the NOx technical code

MEPC 71 adopted resolution MEPC.291(71) on 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* (2017 SCR Guidelines).

MEPC 71 also estimated that Scheme A and Scheme B should be made equally applicable and that consequential amendments to the NOX Technical Code 2008 were required.

PPR 5 instructed the WG on Prevention of air pollution from ships to develop draft amendments to the NTC 2008 and draft consequential amendments to the 2017 SCR Guidelines, as necessary.

The WG noted that additional editorial amendments were required to the draft text to clarify that the limitations of paragraph 2.2.4.2 of the NTC 2008 were applicable to scheme B only.

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.

The WG also supported that draft consequential amendments should be made to the 2017 SCR Guidelines to be consistent with the draft amendments agreed in paragraph 2.2.5.1 of the NTC 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. "

PPR 5 agreed to :

- draft amendments to the NOX Technical Code 2008, for approval at MEPC 73, with a view to adoption at MEPC 74 ;
- draft consequential 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)), for consideration by MEPC 73 with a view to approve in principle and adoption at MEPC 74, in conjunction with the aforementioned amendments to the NOX Technical Code 2008.

Item 11 - review of the 2015 guidelines for exhaust gas cleaning systems (Res.MEPC.259(68))

MEPC 69 had agreed to a new output on "Review of the *2015 Guidelines for Exhaust Gas Cleaning Systems* (resolution MEPC.259(68))" with the following scope of the work:

- further refinement of the EGCS Guidelines ; approval of scrubbers in accordance with Schemes A and B ;
- development of specific guidance on accidental breakdown, instrument malfunction and perceived temporary non-compliance ;
- development of consequential amendments to the *2009 Guidelines for port State control under the revised MARPOL Annex VI* (resolution MEPC.181(59)).

The *2015 Guidelines for exhaust gas cleaning systems* stipulate discharge criteria for washwater from EGCS. Due to an improved level of information on washwater sampling and analysis, there is a need to improve the sampling guidance of these Guidelines especially as regards washwater data collection. In order to ensure comparability of the data collected, sampling should be carried out on the basis of a harmonized approach.

The experiences gained so far with the use of EGCS show that there is a need for clarification regarding the representation of operational compliance in respect of different types of malfunctions and transitory non-compliance for these systems, and the related corrective actions required by the crew : non-compliance, caused by an accidental breakdown of the EGCS, temporary malfunction of the monitoring system only, which does not interfere with the performance of the EGCS, etc.

The Plenary has considered there was a need to remove mandatory language from the draft Guidelines and scrutinize the text to ensure there is no conflict in cross references, and to ensure that the proposed guidance on accidental breakdown did not lead to a situation where a ship was permitted undue leniency. Various delegates also expressed the view that any amendments to the EGCS Guidelines should not penalize early movers.

PPR 5 has established a Correspondence Group on EGCS with the following terms of reference :

- develop full revision of the *2015 Guidelines for EGCS* (res. MEPC.259(68)) ; approval of scrubbers in accordance with Schemes A and B ;
- develop specific guidance on accidental breakdown, instrument malfunction and perceived temporary non-compliance and transient performance of EGCS ;
- develop consequential amendments to the *2009 Guidelines for port State control under the revised MARPOL Annex VI* (resolution MEPC.181(59));

Item 12 - Amendments to regulation 14 OF MARPOL ANNEX VI to require a dedicated sampling point for fuel oil

MEPC 70 approved MEPC.1/Circ.864 on *Guidelines for onboard sampling for the verification of the sulphur content of the fuel oil used on board ships*. It also agreed to the proposal in MEPC

70/15/3 (Norway) for a new output on amending regulation 14 of MARPOL Annex VI to require a dedicated sampling point to draw such fuel oil samples, as there were no current provisions requiring ships to have dedicated point(s) for the purpose of taking on-board samples in order to verify the sulphur content of the fuel oil used on board ships.

MEPC 71 noted that a verification procedure for in-use fuel oil samples should be addressed in guidelines since MARPOL Annex VI does not have a requirement for sampling of in-use fuel oil.

PPR 5 had for its consideration a draft text from for new regulations 14.11 and 14.12 of MARPOL Annex VI which would require that each ship of 400 gross tonnage and above shall be fitted with one or more dedicated sampling points for the purpose of taking representative samples of the fuel oil presently used on board the ship.

This requirement should apply to existing ships and that there should be sampling points for all combustion units. Ships fitted with EGCS should not be exempted as there may be a need to sample fuel oil should the ship revert to using compliant fuel oil. there should be a sampling point for each combustion unit on the ship

IACS considered that as ships already have fuel oil sampling points, a change from "dedicated" to "designated" sampling point should be supported. For example, an air bleed valve and a drain valve on the fuel strainer, which fulfill the conditions specified in paragraph 2.2 of MEPC.1/Circ.864, should constitute an acceptable sampling point.

The Chair invited interested Member Governments and international organizations to provide further comments on the draft amendments to MARPOL Annex VI and their views on whether the guidance contained in MEPC.1/Circ.864 is adequate, to the coming intersessional meeting on the consistent implementation of regulation 14.1.3 of MARPOL Annex VI, which will be held 9-13 July 2018.

An important discussion in Plenary occurred on verification procedure for in-use fuel oil samples. IBIA pointed out that applying appendix VI of MARPOL Annex VI to the in-use sample carries a risk that a ship could, falsely, be found non-compliant and that further work on the proposal was needed.

The verification procedure in appendix VI for MARPOL samples is a two-step process whereby, if the average of two tests in one laboratory exceeds the limit, but is within the limit plus $0.59 \times R$, the procedure requires a second stage calling for a further two tests to be done in a second laboratory. If it goes to the second stage, the average of all four test results must be within the maximum limit value.

According to IBIA, the sulphur content in fuel oil should be tested in accordance with ISO 8754:2003. This test method is aligned with the test method most commonly applied in fuel quality test programmes throughout the industry, both for commercial and regulatory purposes.

Agenda item 13 - Consistent implementation of regulation 14.1.3 of MARPOL annex VI

MEPC 71 had approved the new output on "Consistent implementation of regulation 14.1.3 of MARPOL Annex VI", including the additional item requested by MSC 98 on safety implications relating to the option of blending fuels in order to meet the 0.50% m/m sulphur limit.

MEPC 71 also requested ISO to consider the framework of ISO 8217 with a view to ensuring consistency between the relevant ISO standards on marine fuel oils and the implementation of regulation 14.1.3 of MARPOL Annex VI. Unfortunately, ISO is not be able to revise the marine fuel oil standard before 1 January 2020 but have already initiated the process to develop an ISO Publicly Available Specification (PAS) and will provide regular updates on this work to the IMO.

Discussion in Plenary

PPR 5 had for its consideration various proposals to develop appropriate guidelines for verifying the sulphur content in fuel oil samples taken from ships in accordance with the *Guidelines for onboard sampling for the verification of the sulphur content of the fuel oil used on board ships* (MEPC.1/Circ.864).

Given the challenges related to detecting violations of regulation 14.1.3, especially on the high seas, the most effective way of ensuring compliance is to ban the carriage of fuel oil exceeding 0.50% m/m sulphur. Ships using an equivalent arrangement approved in accordance with regulation 4.1 (e.g. exhaust gas cleaning systems), or operating under a trial for ship emission

reductions in accordance to regulation 3.2 of MARPOL Annex VI, would be exempt from the prohibition through the equivalent arrangement approval or the trial permit from the Administration as it is currently done.

This proposal to prohibit ships from keeping fuel oil on board that cannot be used for combustion purpose on board the ship and providing draft amendments to regulation 14 and the Supplement to the IAPP Certificate of MARPOL Annex VI to this effect, has met a great support from many delegations. It also raised strong opposition from others.

It has been also proposed to develop :

- a guidance document for the relevant stakeholders in order to facilitate a more consistent preparation for and implementation of regulation 14.1.3 of MARPOL Annex VI, including a recommendation for ships to develop and keep on board an endorsed implementation plan ; the implementation plan should be developed according to agreed IMO guidance to be developed and endorsed by the Administration to make sure that it is sufficiently robust in order to ensure compliance by 1 January 2020 ;
- a guidance on consistent evidence to support a claim that all efforts were made to obtain compliant fuel and on investigating non-availability of compliant fuel oil ;
- a draft standard format for reporting fuel oil non-availability as provided in regulation 18.2.4 of MARPOL Annex VI that may be used to provide evidence if a ship is unable to obtain fuel oil compliant with the provisions stipulated in regulations 14.1.3 and 14.4.3.

Some delegates considered that some flexibility should be provided in the transition period, whereas others estimated that there should be no 'transitional period' that in effect postpones the implementation of the 0.50% sulphur limit as ships should prepare in advance. The great importance on consistent implementation to ensure a level playing field is maintained was commonly underlined.

The Chair concluded the discussion by recalling that MEPC 71 had already considered the proposal for inclusion of a transition period in the scope of the output, which did not receive sufficient support

Set of guidelines on "Consistent implementation of regulation 14.1.3 of MARPOL Annex VI"

The Plenary decided to support development of a single set of guidelines, gathering proposals for amendments related to testing and sampling of fuel oils and proposals for a standard format for reporting non-availability.

Consequently, the WG on Prevention of air pollution from ships developed the following outline of the draft Guidelines for consistent implementation of regulation 14.1.3 of MARPOL Annex VI, which were agreed by the Plenary :

- 1 Preparatory and transitional issues
 - ship implementation planning for 2020
 - preparation of steam ships
- 2 Impact on fuel and machinery systems
- 3 Verification issues and control mechanism and actions
 - guidelines on the control mechanism to ensure compliance with the sulphur limit of fuel oil
 - port State control
 - information sharing between Parties to MARPOL Annex VI related to non-compliances under MARPOL Annex VI
 - in-use fuel oil samples
- 4 Fuel oil non-availability:
 - guidance and information sharing on fuel oil non-availability
 - standard format for reporting fuel oil non-availability
- 5 Safety implications relating to the option of blending fuels in order to meet the 0.50% m/m sulphur limit
- 6 Other useful guidance/information that assist Member States and stakeholders:
 - guidance addressing quality assurance and integrity of the supply chain
 - guidance on the importance of fuel oil management on board
 - guidance on assuring availability of compliant fuel oil, including new fuel blends
 - guidance addressing fuel quality issues, particularly regarding new types of fuels and blends
 - best practice for fuel oil purchasers/users;
 - best practice for Member State/coastal State; and
 - best practice for fuel oil providers

Draft amendments to MARPOL Annex VI for the carriage ban on non-compliant fuel oil

Proposed carriage ban was broadly supported by the industry as it would facilitate effective enforcement of the requirement, ease Administrative burden, harmonize compliance and consistent implementation. It would be wise to have the carriage ban on the same date as the entry into effect of the 0.50% sulphur limit.

The Chair noted that there was a clear agreement to take forward the carriage ban and instructed the WG on air pollution from ships to finalize the proposed draft amendments.

The Plenary agreed to MARPOL Annex VI for a prohibition on the carriage of non-compliant fuel oil for combustion purposes with a sulphur content exceeding 0.50% with a view for submission to MEPC 72 for approval as an urgent matter.

Terms of reference for Intersessional Meeting on consistent implementation of regulation 14.1.3 of MARPOL Annex VI

MEPC 71 instructed PPR 5 to prepare terms of reference for an intersessional meeting on consistent implementation of regulation 14.1.3 of MARPOL Annex VI. This intersessional meeting will address in particular the abovementioned topics :

- draft Guidelines for consistent implementation of regulation 14.1.3 of MARPOL Annex VI;
- testing and verification procedure of in-use fuel oil samples (amendments to regulation 14 and associated consequential amendments to regulation 18 and appendix VI);
- draft amendments to regulation 14 of MARPOL Annex VI to require a dedicated sampling point for fuel oil".

This meeting will be held from 9 to 3 July 2018.

Item 14 - Revised guidelines for the application of MARPOL Annex I requirements to FPSOs and FSUs

MEPC 70 had agreed to include a new output *on Revised Guidelines for the application of MARPOL Annex I requirements to FPSOs and FSUs*.

PPR 5 had for its consideration the text of the draft revised Guidelines, 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.

A Drafting Group on revised Guidelines for the application of MARPOL Annex I requirements to FPSOs and FSUs was established to finalize the text of the draft 2018 Guidelines with an associated draft MEPC resolution.

Echoing a remark from IACS in Plenary, the DG agreed to insert the following footnote to the entries for the two regulations in annex 1 to the draft Guidelines:

"If an Administration decides to apply these provisions to FPSOs and FSUs, it is invited to notify all parties involved so that a sufficient amount of time is allowed for the provisions to be complied with, which should be at least one year from the date of notification."

PPR 5 agreed to the draft MEPC resolution, for submission to MEPC 73, with a view to adoption.

Item 15 - Review of the IBTS guidelines and amendments to the IOPP certificate and oil record book

MEPC 70 agreed to include a new output on "Review of the IBTS Guidelines and amendments to the IOPP Certificate and Oil Record Book".

Sweden, Liberia et al. provided to PPR 5 proposals related to discharge of clean drains, evaporation of oil residue (sludge), bilge primary tanks for IBTS or non-IBTS ships, bilge water management and recording in the IOPP Certificate and the Oil Record Book, drains from the BPT to the sludge tank, definition of clean drain systems, management of evaporation condensation from oil residues system, etc.

The Plenary considered that the development of a set of consolidated Guidelines would merit further detailed consideration.

Concerns expressed by a number of delegations over the proposals suggesting that clean drains should be discharged through an oil content meter and that evaporation as an acceptable means of disposal of water in the sludge tank should be deleted from the IBTS Guidelines. Those delegations expressed the view that the existing Guidelines recognized the extremely low risk of contamination of clean drain and that the practice of evaporation of water should be maintained subject to appropriate control measures.

PPR 5 invited interested Member Governments and international organizations to work together interessionally and submit a draft of consolidated IBTS Guidelines and draft amendments to the IOPP Certificate and Oil Record Book to PPR 6.

Item 18 - Updated draft package for the use of electronic record books

PPR 4 had requested the IMO Secretariat to prepare an updated draft package for the use of electronic record books including :

- draft Guidelines for the use of electronic record books under MARPOL;
- draft amendments to MARPOL and the NOX Technical Code;
- draft unified interpretations of MARPOL and the NOX Technical Code;
- draft amendments to the Procedures for port State control;
- draft amendments to *2009 Guidelines for port State control under the revised MARPOL Annex VI*.

PPR 5 had for its consideration the updated draft package, but also a proposal from USA for a mandatory Electronic Record Book Code (ERB Code). This code would be aimed to ensure that electronic record books provide the same level of accuracy and assurance as currently provided in MARPOL for paper record books. This proposal was rapidly put aside in Plenary.

The Plenary agreed that the use of electronic record book should also apply to the recording requirements under regulation 13.5.3 of MARPOL Annex VI, in relation to the tier and on/off status of marine diesel engine and that, therefore, amendments to the draft Guidelines and MARPOL Annex VI were needed.

PPR 5 considered that a trial period until the entry into force of the relevant MARPOL amendments should be established during which ships are encouraged to use electronic record books in addition to record books in hard copy with a view to gaining experience.

Guidelines for the use of electronic record books under MARPOL

The Drafting Group established by PPR 5 in Plenary agreed that the electronic record book would be required to be retained on board the ship for the period specified in MARPOL, as per the current requirements for hard copy record books.

It agreed also to the inclusion of IEC 60945:2002 (Maritime navigation and radiocommunication equipment and systems – General Requirements – Methods of testing and required test results) as an alternative reference to the standard related to the testing of equipment and systems installed on a ship.

Regarding the implementation of the use of electronic signatures, it was suggested that once the FAL Committee had completed its work on the use of electronic signatures, for the purposes of electronic certificates, the inclusion of the outcome could be included in the Guidelines for consistency.

PPR 5 agreed to the text of the draft MEPC resolution on the *Guidelines for the use of electronic record books under MARPOL*, for submission to MEPC 73 for consideration, with a view to approval in principle and subsequent adoption at MEPC 74 in conjunction with associated draft amendments to MARPOL and the NOX Technical Code.

Draft amendments to MARPOL and the NOX Technical Code

PPR 5 agreed to the consequential amendments to MARPOL Annexes I, II, V and VI, and the NOX Technical Code, for submission to MEPC 73, for consideration with a view to approval and subsequent circulation.

Draft amendments to the Procedures for Port State Control, 2017

The Drafting Group included the recording requirements under regulation 13.5.3 of MARPOL Annex VI, in relation to the tier and on/off status of marine diesel engine. It acknowledged the need to encourage ships to use electronic record books during the interim period to gain experience prior to the entry into force of the amendments.

PPR 5 agreed to the draft amendments to the *2009 Guidelines for port State control under the revised MARPOL Annex VI* for submission to MEPC 73, for approval in principle, with a view to adoption at a future session in conjunction with other amendments.

Draft amendments to the 2009 Guidelines for port State control under the revised MARPOL Annex VI

The DG agreed to the text of the draft amendments to the Guidelines, but suggested that they should be kept in abeyance for adoption at a future session, in conjunction with other relevant amendments to the 2009 Guidelines.

Accordingly, PPR 5 agreed to the draft amendments to the *2009 Guidelines* for submission to MEPC 73, for approval in principle, with a view to adoption at a future session in conjunction with other amendments.

Item 19 - Consideration of an initial proposal to amend ANNEX 1 TO THE AFS CONVENTION to include controls on cybutryne

MEPC 71 agreed to include a new output on "Consideration of an initial proposal to amend annex 1 to the AFS Convention to include controls on cybutryne" in PPR's biennial agenda for 2018-2019.

The long-term environmental adverse effects that can be associated with the use of cybutryne lead to the conclusion that the only appropriate measure to mitigate the risks resulting from the use of this substance is to recommend to permanently prohibit its use in anti-fouling systems on all type of ships, and include it in annex 1 to the AFS Convention.

PPR 5 instructed the Working Group on Ballast Water Management and Anti-fouling Systems to consider initial proposal for amendment to annex 1 to the AFS Convention.

The Group agreed that the submitted initial proposal satisfied the requirements of annex 2 to the AFS Convention but that a more detailed review of cybutryne was warranted.

In light of the above, PPR 5 has recommended to the MEPC that the target completion year of the output "Consideration of an initial proposal to amend annex 1 to the AFS Convention to include controls on cybutryne" be extended to 2020 and the output renamed as "Amendment of annex 1 to the AFS Convention to include controls on cybutryne, and consequential revision of relevant guidelines"

Item 20 - unified interpretation to provisions of IMO environment-related conventions

Unified Interpretation on engine test cycles required by the NOX Technical Code 2008

MEPC 71 had forwarded 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, to the PPR 5 for consideration.

According Inmarest, the unified interpretation would clarify the existing unclear definitions in MARPOL Annex VI and the NOX Technical Code 2008 but raises new questions. Particularly, it conflicts with the provisions of chapter 3 of the NOX Technical Code 2008. It is not clear which test cycles would be tested for certification, and the proposed amended unified interpretation is an amendment to the NOX Technical Code 2008 rather than an interpretation.

The WG on prevention on air pollution from ships stressed that proposed change could not be supported due to inconsistencies and possible loopholes that could be abused, and confirmed that proposed changes need amendments to the NOX Technical Code 2008.

Due to a lack of sufficient support by Member Governments, PPR 5 agreed not to develop a unified interpretation on engine test cycles required by the NOX Technical Code 2008.

Garbage Record Book entries

Marshall Islands sought clarification with respect to recording quantities of cleaning agents and additives contained in wash water as operational wastes. It suggested that a common understanding could be applied when estimating and recording quantities of cargo residues that cannot be recovered using commonly available methods for unloading, when contained in hold wash water.

Under regulation 1.12 of MARPOL Annex V, the definition of Operational Wastes includes "cleaning agents and additives contained in cargo hold and external wash water".

Regulations 4 and 6 of MARPOL Annex V permit the discharge into the sea of cleaning agents or additives contained in cargo hold, deck and external surfaces wash water, provided that these substances are not harmful to the marine environment. However, if such cleaning agents or additives are harmful to the marine environment, then they must be discharged to a reception facility.

The definition for Operational Wastes only refers to cleaning agents and additives contained in cargo hold and external wash water. It does not expressly refer to the cleaning agents/additives and the wash water as a mixture. Alternatively, the phrase "contained in" could be understood to require recording the total quantity of the cleaning agent and additive, together with the quantity of the wash water as a mixture.

PPR 5 agreed to the need to clarify this issue, and invited interested Member Governments to work together intersessionally and to submit concrete proposals to PPR 6

Item 23 – AOB

System Design Limitations

PPR 4 recognized general support for the need to develop separate guidance on SDL for use in conjunction with the *2016 Guidelines for approval of Ballast Water Management systems (G8)*. MEPC 71 had referred draft guidance on SDL and self-monitoring of ballast to PPR 5 for finalization of the guidance.

An approved BWMS might not be appropriate for all ships or all situations. Also, some ships need assurances that BWMS will be capable of operating in conditions that are more challenging than those included in the standardized tests. The SDL approach is intended to complement the standardized tests in the 2016 Guidelines (G8) 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 stakeholders, such as the shipowners who are required by the Convention to meet the D-2 standard during every ballast water discharge and crew members who will operate BWMS.

PPR 5 agreed to the draft Guidance on System Design Limitations of ballast water management systems and their monitoring, for submission to MEPC 73 with a view to approval and dissemination as a BWM.2 circular.

Contingency measures

MEPC 71 had approved BWM.2/Circ.62 on *Guidance on contingency measures under the BWM Convention*. It had also referred draft guidance on a contingency measure for ships calling ports where normal operation of BWMS is not possible due to challenging water qualities, to PPR 5 for further consideration. In such a case, the use of ballast water exchange plus treatment could assist in dealing with ballast water from such ports.

In Plenary, some concerns related to aspects such as whether the proposed measures would fall under the definition and scope of contingency measures or would create disproportionate administrative burden.

PPR 5 invited submissions to PPR 6 on specific examples of contingency measures acceptable to port States and implemented by the shipping industry, which could then be included in an annex to the *Guidance on contingency measures under the BWM Convention* (BWM.2/Circ.62)

Use of more than one Engine Operational Profiles (Maps)

PPR 4 had prepared a draft definition of "Engine Operational Profile (Map)" for the purposes of the NTC Code 2008 and had invited MEPC 71 to approve a new output on "Development of amendments to MARPOL Annex VI and the NTC Code on the use of multiple engine operational profiles (Maps) for marine diesel engines.

MEPC 71 had not reached agreement with regard to the proposal and subsequently had instructed PPR 5 to further consider the title of the proposed new output and the associated scope of work.

The proposed output would permit more than one map to be developed and made available to a ship in certain circumstances.

Many Member States estimated that the concept of "Map" is too narrow for the output. The WG on prevention of air pollution from ships agreed that the term "Engine Operational Profile" be used in lieu of 'Map' as an acceptable compromise and that the term "description" should be used instead of "definition" to avoid pre-supposing any possible future addition of the definition to regulation 2 of MARPOL Annex VI or to paragraph 1.3 of the NOX Technical Code 2008.

"Engine Operational Profile is a particular set of NOX influencing settings applied in an electronic engine management system which influences the NOX emission performance. Those settings may relate to, but are not limited to, fuel injection, inlet and exhaust valve operation, charge air, exhaust bypass/wastegate or exhaust after treatment controls and auxiliary control devices."

On a proposal by the WG, PPR 5 recommended to MEPC that "Development of amendments to MARPOL Annex VI and the NOX Technical Code on the use of multiple engine operational profiles for a marine diesel engine" should be taken forward as a new output.

The related work would be to clarify whether multiple engine operational profiles are allowed, and if so, what regulatory controls should be applied, and if not allowed, then what amendments would be necessary to MARPOL Annex VI and the NTC 2008 ;
