

# IMO Pollution Prevention & Response Third session (PPR 3)

## Agenda Preview

### Introduction

The 3rd session of the IMO Sub-Committee on Pollution Prevention and Response (PPR) will be held from 15 to 19 February 2016, at the IMO headquarters in London. This briefing summarises subjects under discussion which are relevant to the work of Lloyd's Register out of documents submitted by 22 January 2016.

### Overview of agenda items

The following agenda items are relevant to the work of Lloyd's Register.

#### Decision of other IMO Bodies (Agenda item 2)

PPR 3 will consider the outcome of MEPC 68, MSC 95, SDC 2, SSE 2 and CCC 2. New work programmes approved by MEPC 68 have been included in the agenda of PPR 3.

#### Safety and pollution hazards of chemicals and preparation of consequential amendments to the IBC Code (Agenda item 3)

PPR 3 will consider the outcome of the Evaluation of Safety and Pollution Hazards of Chemicals (ESPH) Working Group and the various issues submitted to this session.

The following are the expected primary discussion points:

- The outcome of the twentieth session of the Working Group on the Evaluation of the Safety and Pollution Hazards of Chemicals (ESPH 21,) including
  - Outcome of GESAMP/EHS 52, MEPC 68 and MSC 95.
    - Review of MARPOL Annex II requirements relating to discharge of tank washings containing high-viscosity and persistent floating products.
  - Draft MSC-MEPC Circular on Example of a certificate of protection for products requiring oxygen-dependent inhibitors (as required by paragraph 15.13.3 of the IBC Code.)
  - The New product (list 1 product for MEPC.2/Circ.21) –Three new products are proposed. In addition, carriage of bio-fuel blend (tripartite agreement will expire in December 2018) and hydrocarbons of wood origin were discussed, which is subject to inclusion in Annex 11 to MEPC.2/Circ.21.
  - Pollutant only mixtures containing at least 99% by weight of components already assessed by IMO presenting safety hazards (List 2.)
  - New trade name mixtures (list 3 product for MEPC.2/Circ.21) - 11 products are proposed for discussion at PPR 3
  - Pollutant only mixtures containing one or more components, forming more than 1% by weight of the mixture, which have not yet been assessed by IMO (List 4.)
  - New cleaning additives - 27 products are proposed for discussion at PPR 3. (MEPC.2/Circ.21, Annex 10)
  - Amendments of the existing carriage requirements (the next revision of the IBC Code) - Urea/Ammonium nitrate solution.
  - The proposed revision to the IBC Code (Chapters 17, 18 and 21.)
  - Revision of MEPC .1/Circ.512-Guidelines for the provisional assessment of liquid substances transported in bulk
  - Development of minimum carriage requirements for contaminated bulk liquid carried in OSVs (OSV Chemical Code.)
- Records of deviations from the written criteria set out in chapter 21 of the IBC Code.
- Analysis of impacts on carriage requirements based on application of the revised draft chapter 21 of the IBC Code.
- Revision of IBC Code – Identification of sensitizers.

- Revised draft chapter 21 of the IBC Code.
- Guidance/procedures for the assessing of products classified under Annex I or under Annex II of MARPOL.
- Toxic Vapour Detection issue.
- Preliminary draft chapters 17 and 18 of the IBC Code.

This is a continuous agenda item.

#### **Lloyd's Register's view**

In general, Lloyd's Register supports the outcome of the ESPH 21. The outcome of the discussion on toxicity may require attention by the IGF Code Correspondence Group (on Methanol/Ethanol) set up under the CCC Sub-Committee.

### **Review of MARPOL Annex II requirements that have an impact on cargo residues and tank washings of high viscosity and persistent floating products (Agenda item 4)**

PPR 2 noted a report on an accident involving discharge of high-viscosity oil, and recalled that further discussion will take place in MEPC under a new unplanned output on the revision of the IBC Code.

MEPC 68, having considered document MEPC 68/17/2 (Germany et al.) proposing to review Annex II of MARPOL and the IBC Code with regards to the discharge requirements relating to the cleaning and discharging of tank washings containing high-viscosity and persistent floating products to reduce the impact on the environment, agreed to include this item in the agenda of PPR 3.

The new proposal is submitted to PPR 3 for further consideration.

Target completion of this item is 2018

#### **Lloyd's Register's view**

Lloyd's Register will carefully monitor the development.

### **Code for the transport and handling of limited amounts of hazardous and noxious liquid substances in bulk on offshore support vessels (Agenda item 5)**

PPR has been working to update resolution A.673(16) to take into account the need for larger quantities of hazardous and noxious liquid substances to be carried.

It should be noted that three chapters had been sent to other Sub-Committees for comment and will be reviewed during PPR 3:

- Chapter 2 (old and new numbering) on ship survival capability and the location of cargo tanks has been sent to SDC Sub-Committee.
- Chapter 5 (old numbering, chapter 6 under the new numbering) on cargo transfer has been sent to SDC Sub-Committee.
- Chapter 8 (old numbering, chapter 9 under the new numbering) on fire-fighting requirements has been sent to SSE Sub-Committee.

PPR 2 established a Correspondence Group on this subject, PPR 3 will decide on the following conclusions of the group:

- Chapters 3 and 4 have been thoroughly worked through; however there are still a few outstanding issues. Further draft definitions related to these chapters are almost finalised.
- Chapters 2 (Survival capability and location of cargo tanks), 6 (Cargo transfer) and 9 (Firefighting requirements) have been revised by the SDC (chapters 2 and 6), SSE (chapter 9) and CCC (chapter 6) Sub-Committees. The chapters have further been commented on by the group.
- Further progress has also been made on the rest of the Code and the text has been kept with comments from the group for further consideration. The full text of the draft Code can be found in document PPR 3/INF.2

The remaining chapters are:

- Chapter 1 – General (application, scope, definitions, equivalents, survey and certification.)
- Chapter 2 – Ship survival capability and location of cargo tanks (freeboard, intact and damage stability, location of cargo tanks, non-cargo discharges below the freeboard deck.)

- Chapter 5 – Cargo containment (definitions and tank type requirements for individual products.)
- Chapter 6 – Cargo transfer (piping requirements, cargo transfer control systems and hose handling.)
- Chapter 7 – Cargo tank venting.
- Chapter 8 – Electrical installations.
- Chapter 9 – Fire fighting requirements.
- Chapter 10 – Acid spill protection.
- Chapter 11 – Spaces required to be entered during normal cargo handling operations (including those not normally entered.)
- Chapter 12 – Instrumentation and automation systems (filling level indicators and overflow control.)
- Chapter 13 – Pollution requirements.
- Chapter 14 – Personnel protection (PPE provision, first aid and safety equipment.)
- Chapter 15 – Operational requirements (maximum quantity of cargo per tank, cargo information, personnel training, opening and entry into tanks, cargoes not to be exposed to excessive heat)
- Chapter 16 – Backloading.
- Chapter 17 – Applicability to existing OSVs.
- Chapter X – Loading/discharge of portable tanks.

A working group is expected on this subject.

Target completion of this item is 2017

#### **Lloyd's Register's view**

Lloyd's Register welcomes the developments so far and has participated in the Correspondence Group. The need for this work to be completed is recognised as ships providing supplies to offshore rigs are getting bigger and as the rigs are further offshore and require larger quantities of supplies due to the increased time between deliveries. There are safety and pollution aspects to be considered with the back-loaded cargoes. This aspect needs further careful and detailed consideration.

Lloyd's Register is keen to see further development of the "back loading" issue, and looking forward to information submitted. This issue may be addressed in the chemical working group established under agenda item 3.

#### **Ballast Water Management issues (Agenda item 6 and 7)**

Currently the Ballast Water Management Convention is ratified by 47 states (30 states are required) representing, at most, 34.56% of the world merchant tonnage (as of 15 January 2016).

PPR 3 will discuss various matters relating to Ballast Water Management under separate agenda items (6 and 7).

Discussions will revolve around issues relating to:

##### **PSC guideline**

- There is information provided on particular equipment that can be used for inline sampling.

##### **Ballast Water Management – How to do it**

- PPR 1 had noted with appreciation the offer of IMarEST (PPR 1/6) to support the IMO, through access to its network of experts, in the production of a manual entitled "Ballast Water Management – How to do it". PPR 2 considered the first draft of the manual, which was submitted by IMarEST (PPR 2/6), and invited IMarEST and the Secretariat to continue with the development of the manual and Member Governments and international organisations to continue supporting this activity, with a view to submission of the final version of the manual to PPR 3 for consideration. Since PPR 2 the IMarEST has engaged with the Secretariat, its expert members and with representatives of Singapore to review and update the draft manual.

The target completion date for this item is 2017.

#### **Lloyd's Register's view**

Lloyd's Register appreciates the efforts for developing "Ballast Water Management – How to do it" which will help as an educational material. Lloyd's Register understands that the work will be kept on hold until discussions on the review of the G8 guideline (MEPC.174(58) - the Guidelines for approval of ballast water management systems) is concluded at MEPC.

### **Additional information for readers**

Readers are to note that relevant information is provided on the [IMO website](#).  
Guidance on [Ballast Water Management](#) is available on the Lloyd's Register website.

## **Consideration of the impact on the Arctic of emissions of black carbon from international shipping (Agenda item 8)**

This subject has been in the agenda item of the IMO meetings for some time, and finally, IMO agreed on the definition at MEPC 68, i.e. approved the definition of Black Carbon for international shipping as follows:

"Black Carbon is a distinct type of carbonaceous material, formed only in flames during combustion of carbon-based fuels. It is distinguishable from other forms of carbon and carbon compounds contained in atmospheric aerosol because it has a unique combination of the following physical properties:

1. Strongly absorbs visible light with a mass absorption cross section of at least 5 m<sup>2</sup>g<sup>-1</sup> at a wavelength of 550 nm;
2. Is refractory, that is, retains its basic form at very high temperatures, with vaporization temperature near 4,000 K;
3. Is insoluble in water, in organic solvents including methanol and acetone, and in other components of atmospheric aerosol; and
4. Exists as an aggregate of small carbon spherules."

PPR 3 was tasked to identify an appropriate measurement method(s) of Black Carbon emissions from international shipping.

The target completion date for this item is 2017.

### **Lloyd's Register's view**

Lloyd's Register will monitor the discussion closely.

## **Development of standards for shipboard gasification waste to energy systems and associated amendments to regulation 16 of MARPOL Annex VI (Agenda item 9)**

MEPC 68 reviewed the proposal on development of standards that would allow the use of emerging waste to energy technology submitted to that session. Subsequently the new work item was added to the agenda of the PPR Sub-Committee.

Target completion of the work is 2017.

### **Lloyd's Register's view**

Lloyd's Register will monitor the discussion with interest as to how to optimise disposal of shipboard generated garbage.

## **Amendments to bunker delivery note to permit the supply of fuel oil not in compliance with regulation 14 of MARPOL Annex VI (Agenda item 10)**

MEPC 67 had considered the document MEPC 67/12/7 (Austria et al.) proposing to insert an additional sentence in appendix V (Information to be included in the Bunker Delivery Note (BDN)) of MARPOL Annex VI, taking into account the "equivalent" provisions set forth in regulation 4 of MARPOL Annex VI, i.e. to fit the statement of the BDN for a case where a scrubber is used onboard.

PPR 2, agreeing that a ship can take bunker fuel not compliant with MARPOL Annex VI regulation 14 provided it has equivalent arrangement (e.g., scrubber), could not produce texts for amendments.

A revised proposal is presented to PPR 3 for discussion

Target completion of this item is 2016.

### **Lloyd's Register's view**

Lloyd's Register appreciates the work that has been carried out by the sponsor of this proposal and supports it.

## Guidelines for onboard sampling and verification of the sulphur content of the fuel oil used on board ships (Agenda item 11)

Following an initial discussion at PPR 2, MEPC 68 formally agreed a new work programme for further discussion at PPR 3.

Draft guidelines are prepared for discussion (PPR 3/11),

Target completion of this item is 2016.

### Lloyd's Register's view

The issue is to take samples of fuels actually in use, in addition to the current sampling of fuel delivered. Whilst this is considered as a policy decision, it should be reminded that these sampling points may not have been designed into ships, therefore MARPOL sampling points (current requirement) need to be revised, once a decision is taken. Lloyd's Register is prepared to develop a class requirement for arranging such "in use" fuel sampling point from a safety perspective.

If a decision is moving towards a mandatory "sampling point for the fuel in use" including existing fleet, due consideration should be given for a period of grace for design approval, retrofitting works and verification surveys.

## Guidelines for the discharge of exhaust gas recirculation bleed-off water (Agenda item 12)

MEPC 68 briefly discussed the possible discharge guideline of such bleed-off water. The Proposal put forward was to use MARPOL Annex I (for oil) until the 2009 Guidelines for exhaust gas cleaning systems (Resolution MEPC.184 (59)) for acidity. The PPR Sub-Committee was instructed to discuss this matter further.

Draft guidelines are submitted for discussion

Target completion of this item is 2016.

### Lloyd's Register's view

With regards to the bleed-off water:

- In general, the current proposals are the same for EGCS systems (MEPC.259(68) - 2015 Guidelines for exhaust gas cleaning systems) then this would appear to be an acceptable proposal. The key point which would need to be confirmed by PPR 3 is how the PAH limit (and hence also nitrate limit) is to be applied in those cases where:
  - The EGR bleed-off water is discharged separate from that from the EGCS
  - There is no EGCS in operation (i.e. EGR used for Tier II)
- In addition, Lloyd's Register has the following views with regard to the 15ppm requirements in relation the current 15ppm alarm used for engine room bilge:
  - It is designed to detect contamination of bilge water (from fuel leakage/lubricant oil leakage/etc.) a 15ppm monitor will not pick up the other contaminants that will be present in the bleed off water (soot/particulate matter) and does not take any account of the acidity of the water
  - The volume discharged will be vastly higher from the EGR than would be the case from periodic pumping out of the bilges via the 15ppm as is currently done.
  - The discharge will be continuous wherever the vessel is operating the EGR, bilges are normally pumped out through the 15ppm when at sea.
- The proposed EGR Guidelines refer to the monitoring and recording of data however there is no reference to actually complying with the data recording or report generating capabilities given by Section 7 of the EGCS Guidelines in respect of the EGR unit.
- Where an EGR system is used in part or totally as an alternative to the use of sulphur controlled fuel oil as per regulation 14, clearly the SOx/CO2 monitoring aspects would be covered by the existing EGCS Guidelines and therefore it would be agreed that no additional text covering that is required.

Additional points relating to NOx compliance:

- A set of further guidance may be needed in relation to the compliance with NOx emission compliance in ECA.

## Unified interpretation to provisions of IMO environment-related Conventions (Agenda item 18)

PPR 3 will consider the following:

### 1. IACS Unified Interpretations

A set of unified interpretations to implement NOx Technical Code, primarily associated with Scheme B (Calculation based on simulation/modelling) are presented for discussions. The proposal consists of a series of interpretations on the 2011 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.198(62));

- MPC107 - Section 3.1.1 - Application criteria for scheme B
- MPC108 - Section 3.2.1.3 - Technical file - Information to be provided in the NOx technical file
- MPC109 - Section 3.2.1.4 - Technical file - Information on catalyst block specification and arrangement in the SCR chamber
- MPC110 - Section 3.2.1.6 - Technical file - Cross-unit parameters
- MPC111 - Section 3.2.1.7 - Technical file - Aspects related to the fuel oil quality resulting in continued compliance of the engine with the applicable NOx emission limit
- MPC112 - Section 3.2.1.8 - Technical file - Factors related to the deterioration rate of SCR performance, e.g. exchange condition for SCR blocks and recommended exchange time of SCR blocks
- MPC113 - Section 3.2.1.9 - Technical file - Controlling arrangements and settings of the SCR, e.g. model, specification of control device
- MPC114 - Section 3.2.1.10 - Technical file - Measures to minimize reductant slip
- MPC115 - Section 3.2.1.11 - Technical file - Parameter check method as the verification procedure
- MPC116 - Section 3.2.1.12 - Technical file - Any other parameter(s) specified by the manufacturer
- MPC117 - Section 3.5.2 - The IAPP initial survey
- MPC118 - Section 4.1 - Engine family concept
- MPC119 - Section 5.1.1 - Scheme A testing - Test of combined engine/SCR systems
- MPC120 - Section 5.2.2 - Scheme A testing - Parameters to be measured
- MPC121 - Section 6.3.1.1 - Scheme B testing - Scaling of chamber
- MPC122 - Section 6.3.2.1.2 - Scheme B testing - Exemption from measuring exhaust gas component
- MPC124 - Section 7.5 - Onboard confirmation for scheme B - NOx reduction rate

In addition, the following interpretations are prepared for the NOx technical code 2008

- MPC125 - Chapter 4, paragraph 4.4.6.1 - Engine family
- MPC126 - Chapter 4, paragraph 4.4.6.2 - Engine group

### 2. Proposed interpretation on line flashing at single point mooring operations

This is a continuous agenda item.

#### Lloyd's Register's view

Lloyd's Register had raised concerns over scheme B approval of engines (using modelling and simulation) as it poses challenges for certification bodies, which was not fully addressed in the IMO instruments (2011 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.198(62))). Lloyd's Register supports a set of Unified Interpretations proposed by IACS, as we have been receiving application for scheme B approval. The matter should be concluded as soon as possible.

A commenting paper submitted by a Member State addressed a new element, i.e. posing a question on the restriction of application of the scheme B approval. However, LR considers that the restriction is imposed by the NOx Technical Code (section 2.2.5.1), not by the interpretations submitted. Therefore, in Lloyd's Register's view, such removal of the currently imposed restriction may require a fresh new discussion. Lloyd's Register is of the view that this discussion should not be addressed together with the proposed IACS Unified Interpretations, but taken as a separate issue.



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