



SUB-COMMITTEE ON BULK LIQUIDS  
AND GASES  
12th session  
Agenda item 6

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## **REVIEW OF MARPOL ANNEX VI AND THE NO<sub>x</sub> TECHNICAL CODE**

### **Comments on the draft revised MARPOL Annex VI as developed by BLG-WGAP 2**

**Submitted by the International Association of Classification Societies (IACS)**

#### **SUMMARY**

**Executive summary:** This document contains as annex IACS's explanation and basis for possible amendments to the draft revised MARPOL Annex VI as attached to the report of the second intersessional meeting of the BLG Working Group on Air Pollution (BLG-WGAP 2)

**Action to be taken:** Paragraph 3

**Related document:** BLG 12/6/Add.1, annex 2

1 This document provides comments on document BLG 12/6/Add.1, annex 2, the draft revised MARPOL Annex VI as developed at the intersessional meeting of the BLG Working Group on Air Pollution held in Berlin, Germany, from 29 October to 2 November 2007. It is submitted in accordance with the provisions of paragraph 4.10.5 of the Guidelines MSC-MEPC.1/Circ. 1.

2 IACS has undertaken a detailed review of the draft revised MARPOL Annex VI and has identified a number of issues which it is considered should be addressed in order to ensure that the revised Annex can be clearly understood and applied in a uniform manner.

#### **Action requested of the Sub-Committee**

3 The Sub-Committee is invited to consider the contents of the annex to this document when reviewing the draft revised MARPOL Annex VI and take action as appropriate.

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## ANNEX

Reference: BLG 12/6 Add.1, annex 2

### Regulation 4

1 Trials for Ship Emission Abatement Technology Research. The effect of the insertion of this regulation has been to result in re-numbering throughout the rest of the Annex. It would be proposed that regulation 3 be re-titled as 'Exemptions' and then divided into two Sections, regulation 3(1) being 'General Exemptions' as currently given as regulation 3 and regulation 3(2) being 'Trials for Ship Emission Abatement Technology Research' as currently given as regulation 4. This would thereby have the effect of retaining the established regulation numbers throughout the Annex hence facilitating usage and comparison to the existing, adopted, text.

2 This would also then correspond to regulation 14(3), (4), (5) & (7) as currently drafted which refers only to regulation 3 thereby indicating that the trials referred to above would not cover aspects related to NO<sub>x</sub> emission controls.

### Regulation 13(3)

3 The definition of 'new installation' is partially given by regulation 2(6), however, that refers to the '... date on which the Annex enters into force..' and does not fully address the case of subsequent installations on ships already in service at that time. These issues had been addressed by MEPC/Circ.473 Unified Interpretation in respect of the existing regulation 2(4). Additionally, with reference to HCFC installations, the text currently reads 'now' rather than '...new installations...'. To address these points it would be proposed that paragraph 13(3) be amended as follows:

- '(a) Installations which contain ozone depleting substances shall be prohibited:
  - (i) on ships constructed on or after 19 May 2005; or
  - (ii) in the case of ships constructed before 19 May 2005, which have a contractual delivery date of the equipment to the ship on or after 19 May 2005 or, in the absence of a contractual delivery date, the actual delivery of the equipment to the ship on or after 19 May 2005.
- (b) Installations which contain hydro-chlorofluorocarbons (HCFC) shall be prohibited:
  - (i) on ships constructed on or after 1 January 2020; or
  - (ii) in the case of ships constructed before 1 January 2020, which have a contractual delivery date of the equipment to the ship on or after 1 January 2020 or, in the absence of a contractual delivery date, the actual delivery of the equipment to the ship on or after 1 January 2020.'

### Regulation 14(1)(a)(i)

4 On the understanding that these NO<sub>x</sub> emission controls apply to all engines over 130 kW irrespective of the gross tonnage of the ship on which they are installed the heading of this section should be amended:

- (a) This regulation shall apply, irrespective of the gross tonnage of the ship onto which engines are installed, to:

5 If that is not the intent, then regulation 14(1)(b) should be extended by an additional clause stating that the regulation does not apply to ‘a diesel engine installed on a ship under 400 gross tonnage except as provided for under regulation 6(2).’

#### **Regulation 14(1)(b)(i)**

6 It is unclear what engines would be covered by the third part of this clause given the exemption provided by the first clause. It would be proposed that retaining only the first two clauses as currently given, linked by ‘or’, which would provide the necessary descriptions.

#### **Regulation 14(2)(a)**

7 In defining a ‘major conversion’ it must be clear that this refers to engines which are not required to be certified under regulation 14 (3), (4), (5) or (7) – as applicable – on grounds of the date of ship construction but which are either subsequently installed or so modified within the respective date ranges (i.e., irrespective of the date of construction of the ship onto which they are installed) and that the NO<sub>x</sub> emission standard which is required to be met at that time is the Tier level appropriate to the ‘date’ (which it is noted has yet to be defined) at which that ‘major conversion’ is undertaken.

#### **Regulation 14(7)(c) Option 1**

8 In order to ensure that the exemption potentially provided by being ‘unreasonable, impractical or excessively costly’ is applied in a uniform manner by all Administrations, and to provide port States with a common level of environmental protection, it would be proposed that clear Guidelines as to the tests to be applied regarding these criteria be developed by the Organization. Such Guidelines must be capable of being implemented on a common basis, worldwide, across the industry.

#### **Regulation 15(4)(c)**

9 The Guidelines required by the paragraph remain to be developed. These Guidelines would need to address such options as (a) where the blending of fuel oils is undertaken onboard (hence there is no supplier provided bunker delivery note specifying that the sulphur content of the fuel oil being used does not exceed 1.50 % m/m) or (b) where a fuel oil of sulphur content above 1.50 % m/m is used in conjunction with another fuel of sulphur content less than the equivalent of 1.50 % m/m – typically in systems (engines or boilers) which burn concurrently a mix of residual fuel oil and natural gas.

10 Additionally it would be noted that the options outlined above are primary control measures (effectively equivalent to that given by regulation 15(4)(a)) rather than the secondary control option as given by regulation 15(4)(b), therefore it would be more appropriate that regulation 15(4)(c) should be amended to read ‘...equivalent to that described in subparagraph (a) or (b) is applied.’

11 It would be proposed that the outstanding Guidelines require a SECA Compliance Plan (SCP) as approved by the Administration. That SCP should, in terms of general principles, correspond as appropriate to the SCP as described in the Guidelines for Exhaust Gas Cleaning Systems (BLG-WGAP 2/WP.1, annex 6) and hence should list (a) the combustion machinery included within the scope of the procedures, (b) the detailed means by which compliance is to be achieved and (c) the verifiable means by which compliance is to be demonstrated. In the case of combustion equipment onboard which to comply instead by means of regulation 15(4)(a) that too is to be so listed.

### **Regulation 17(5)**

12 As amended this paragraph differs from the related Unified Interpretation in MEPC Circ.473 which gave that this requirement applied only to incinerators on ships constructed or which were installed on or after 1 January 2000. Consequently, there will be ships with incinerators installed before 1 January 2000 which have been issued with otherwise valid IAPP Certificates but which do not have such documentation. Furthermore, incinerators installed before that date may not have the capability of functioning within the limits given by paragraph 2 of Appendix IV. Additionally, it should be clarified whether these requirements (and those of regulation 17(6)) also apply to the devices given in regulation 17(4).

### **Regulation 20**

13 IACS submission to BLG 11 (BLG11/5/20) raised the question of the status of ‘oil field’ and similar type equipment which is powered by diesel engines but is installed other than on platforms or drilling rigs (i.e., seismic survey ships with pulse generators, diesel engine powered equipment on well stimulation ships etc.). This point was not resolved at BLG 11 and was left as to be ‘reviewed later’. It is noted that under the MARPOL Convention (Article 2(4)) the definition of a ‘ship’ is already sufficiently broad to encompass platforms and drilling rigs hence the existing Regulation 20(1) is potentially not additionally required. With regard to the intent of the remaining aspects of this regulation, MARPOL Convention Article 2(3)(b)(ii), and to place all such equipment on a uniform basis (i.e., irrespective of whether such equipment is installed on platform, drilling rig or in a vessel with a displacement, or other type of, hull) it would be proposed that the regulation also be re-titled ‘Emissions directly arising from the exploitation...sea-bed mineral resources’

### **BLG WGAP 2/WP.1, annex 2, page 32**

14 This raised the question of the need for a definition of ‘installed on a ship’ – in relation, it is understood, to the application of regulation 14. This was previously raised by IACS documents MEPC 52/4/6 & 52/4/7 and BLG 11/5/20. In this regard it would be proposed that:

15 ‘An engine shall be considered as installed on a ship if it is permanently secured or connected to the ship’s structure, fuel / coolant / exhaust systems or power systems or where that engine is used for some purpose related to the ship’s normal functions.

16 Engines which are considered to be not installed are those in mobile machinery carried by a ship, engines which are temporarily placed onboard a ship (e.g., to cover a breakdown or otherwise non-availability of one of the ship’s engines) or used solely for repair or maintenance purposes on that ship.’