

Subject

Introduction of the outcomes of IMO MEPC 55

# **ClassNK**

## **Technical Information**

No. TEC-0682  
Date 17 November 2006

To whom it may concern

This is a summary report of the decisions and discussions taken at the fifty-fifth session of the Marine Environment Protection Committee (MEPC 55) held on 9 - 13 October 2006.

### 1. Adoption of Mandatory Instruments

The following amendments to the Mandatory Instruments were adopted at this session.

(1) Amendments to the revised MARPOL 73/78 Annex I (refer to Attachment 1)

The amendments to the regulation 1.11 (Special Area) of the revised MARPOL 73/78 Annex I to add new paragraph (10) concerning the designation of the Southern South African Waters as a Special Area were adopted at this session and will enter into force on 1 March 2008.

(2) Amendments to MARPOL 73/78 Annex III (refer to Attachment 2)

The amendments to the MARPOL 73/78 Annex III to introduce new criteria based on the United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS), as amended, were adopted and will enter into force on 1 January 2010 to coincide with that of the IMDG Code Amendment 34-08.

(3) Amendments to the Condition Assessment Scheme (CAS) (refer to Attachment 3)

The following amendments to the CAS were adopted and will enter into force on 1 March 2008.

(i) Requirement on thickness measurement

This Amendment is that the attending surveyor may refer to the non-mandatory resolution "Guideline on the assessment of residual fillet weld between deck plating and longitudinals, MEPC.147(54)" in conjunction with thickness measurement procedures.

(ii) Clarification of procedures for the case of changing of flag during the course of a CAS survey

These amendments clarified procedures for the case where there was a change of flag, ownership or Recognized Organization affecting an oil tanker holding a valid CAS Statement of Compliance and that change of flag during the course of a CAS survey.

(To be continued)

#### NOTES:

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## 2. Guidelines for implementation of the Ballast Water Management Convention

(refer to Attachment 4)

For implementation of the Convention, the following five Guidelines were adopted at this session.

- (1) the Guidelines for sediment reception facilities (G1)
- (2) the Guidelines for ballast water reception facilities (G5)
- (3) the Guidelines for ballast water exchange design and construction standards (G11)
- (4) the Guidelines on design and construction to facilitate sediment control on ships (G12)
- (5) the Guidelines on designation of areas for ballast water exchange (G14)

## 3. Unified Interpretation on Regulation 37.4 of the revised MARPOL 73/78 Annex I

Regulation 37.4 of the revised MARPOL 73/78 Annex I concerning “Shipboard oil pollution emergency plan”, which read:

“All oil tankers of 5,000 tonnes deadweight or more shall have prompt access to computerized shore-based damage stability and residual structural strength calculation programs.” will enter into force on 1 January 2007.

At this session, regarding criteria for assessing “prompt access to computerized shore-based damage stability and residual structural strength calculation programs” of this regulation, the following criteria were agreed, including those relevant to liability issues, and expectations under which this regulation.

- (1) verification that a contract exists onboard linking the ship with a shore-based service provider with access to an up to date computer model of the ship and that a copy is kept on board;
- (2) acquisition of a statement from the shore-based service provider indicating that proven computer hardware and software with trained personnel are available and capable of providing computer calculation capabilities as per the above-mentioned regulation; and
- (3) verification that the master has means to accessing to the shore-based firm at any time.

The detail procedure of this matter also refers to Class NK Technical Information TEC-0681.

## 4. Approved Mandatory Instruments – expected to adopt at the next session (MEPC 56)

The following mandatory instruments were approved at this session, which are expected to adopt at the next session (MEPC 56 would be held on July 2007).

- (1) Draft amendments to MARPOL 73/78 Annex I  
The draft amendments to regulation 38.2 of MARPOL 73/78 Annex I (Reception facilities outside special areas) to amend editorially were approved.
- (2) Draft amendments to MARPOL 73/78 Annex IV  
The draft amendments to regulation 11.1.1 of MARPOL 73/78 Annex IV which incorporated the provision that the effluent generated by animals on board livestock carriers needed to be disposed of in a practical, effective and environmentally friendly manner were approved.

(To be continued)

(3) Draft amendments to the revised IBC Code

The draft amendments to chapter 17, 18 and 19 of the revised IBC Code were approved. The draft amendments contain a number of the products shown in chapters 17 and 18 had been re-classified and a number of new products had also been classified after the adoption of the revised IBC Code in December 2004. While the amendments will enter into force on 1 January 2009, until that date, MEPC.2/Circ.12 incorporating the text of the amendments to chapter 17, 18 and 19 that approved at this session will be available and treated as applicable cargo list from 1 January 2007 instead of their of the revised IBC Code which will enter into force on 1 January 2007. MEPC.2/Circ.12 will issue on December 2006.

For any questions about the above, please contact:

NIPPON KAIJI KYOKAI (ClassNK)

External Affairs Division, Administration Center, Head Office

Address: 4-7 Kioi-cho, Chiyoda-ku, Tokyo 102-8567, Japan

Tel.: +81-3-5226-2038

Fax: +81-3-5226-2039

E-mail: [xad@classnk.or.jp](mailto:xad@classnk.or.jp)

Attachment:

1. Attachment 1
2. Attachment 2
3. Attachment 3
4. Attachment 4

**ANNEX 11****RESOLUTION MEPC.154(55)  
Adopted on 13 October 2006****AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1978 RELATING TO  
THE INTERNATIONAL CONVENTION FOR THE PREVENTION OF  
POLLUTION FROM SHIPS, 1973****(Designation of the Southern South African waters as a Special Area)**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee (the Committee) conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1973 Convention") and article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1978 Protocol") which together specify the amendment procedure of the 1978 Protocol and confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

HAVING CONSIDERED proposed amendments to regulation 1 of the revised Annex I to MARPOL 73/78, with a view to designating the Southern South African waters as a Special Area,

1. ADOPTS, in accordance with article 16(2)(d) of the 1973 Convention, the amendments to the revised Annex I of MARPOL 73/78, the text of which is set out at Annex to the present resolution;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted on 1 September 2007, unless prior to that date, not less than one-third of the Parties or Parties the combined merchant fleets of which constitute not less than 50 per cent of the gross tonnage of the world's merchant fleet, have communicated to the Organization their objection to the amendments;
3. INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of the 1973 Convention, the said amendments shall enter into force on 1 March 2008 upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to MARPOL 73/78 certified copies of the present resolution and the text of the amendments contained in the Annex; and
5. REQUESTS FURTHER the Secretary-General to transmit to the Members of the Organization which are not Parties to MARPOL 73/78 copies of the present resolution and its Annex.

## ANNEX

**AMENDMENTS TO THE REVISED ANNEX I OF MARPOL 73/78****(Designation of the Southern South African waters as a Special Area)**

A new subparagraph .10 is added to regulation 1.11 as follows:

“.10 *the Southern South African waters* means the sea area enclosed by the following co-ordinates:

31° 14' S; 017° 50' E  
31° 30' S; 017° 12' E  
32° 00' S; 017° 06' E  
32° 32' S; 016° 52' E  
34° 06' S; 017° 24' E  
36° 58' S; 020° 54' E  
36° 00' S; 022° 30' E  
35° 14' S; 022° 54' E  
34° 30' S; 026° 00' E  
33° 48' S; 027° 25' E  
33° 27' S; 027° 12' E”

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**ANNEX 13**

**RESOLUTION MEPC.156(55)  
Adopted on 13 October 2006**

**AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1978 RELATING TO  
THE INTERNATIONAL CONVENTION FOR THE PREVENTION OF  
POLLUTION FROM SHIPS, 1973**

**(Revised Annex III of MARPOL 73/78)**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee (the Committee) conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1973 Convention") and article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1978 Protocol") which together specify the amendment procedure of the 1978 Protocol and confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

RECALLING further that, at its fifty-fourth session, it had endorsed the proposal by the DSC Sub-Committee regarding the timeframe leading to the entry into force of the revised MARPOL Annex III to make it coincide with the entry into force of amendment 34-08 to the International Maritime Dangerous Goods (IMDG) Code,

HAVING CONSIDERED the proposed amendments to Annex III of MARPOL 73/78 (revised Annex III),

1. ADOPTS, in accordance with article 16(2)(d) of the 1973 Convention, the amendments to Annex III of MARPOL 73/78, the text of which is set out at Annex to the present resolution;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted on 1 July 2009, unless prior to that date, not less than one-third of the Parties or Parties the combined merchant fleets of which constitute not less than 50 per cent of the gross tonnage of the world's merchant fleet, have communicated to the Organization their objection to the amendments;
3. INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of the 1973 Convention, the said amendments shall enter into force on 1 January 2010 upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to MARPOL 73/78 certified copies of the present resolution and the text of the amendments contained in the Annex; and

5. REQUESTS FURTHER the Secretary-General to transmit to the Members of the Organization which are not Parties to MARPOL 73/78 copies of the present resolution and its Annex.

ANNEX

AMENDMENTS TO ANNEX III OF MARPOL 73/78

(Revised Annex III)

The existing text of MARPOL Annex III is replaced by the following:

**“REGULATIONS FOR THE PREVENTION OF POLLUTION BY HARMFUL  
SUBSTANCES CARRIED BY SEA IN PACKAGED FORM**

**Regulation 1**

*Application*

- 1 Unless expressly provided otherwise, the regulations of this Annex apply to all ships carrying harmful substances in packaged form.
  - .1 For the purpose of this Annex, “harmful substances” are those substances which are identified as marine pollutants in the International Maritime Dangerous Goods Code (IMDG Code)\* or which meet the criteria in the Appendix of this Annex.
  - .2 For the purposes of this Annex, “packaged form” is defined as the forms of containment specified for harmful substances in the IMDG Code.
- 2 The carriage of harmful substances is prohibited, except in accordance with the provisions of this Annex.
- 3 To supplement the provisions of this Annex, the Government of each Party to the Convention shall issue, or cause to be issued, detailed requirements on packing, marking, labelling, documentation, stowage, quantity limitations and exceptions for preventing or minimizing pollution of the marine environment by harmful substances.\*
- 4 For the purposes of this Annex, empty packagings which have been used previously for the carriage of harmful substances shall themselves be treated as harmful substances unless adequate precautions have been taken to ensure that they contain no residue that is harmful to the marine environment.
- 5 The requirements of this Annex do not apply to ship’s stores and equipment.

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\* Refer to the IMDG Code adopted by the Organization by resolution MSC.122(75), as amended by the Maritime Safety Committee.

## **Regulation 2**

### *Packing*

Packages shall be adequate to minimize the hazard to the marine environment, having regard to their specific contents.

## **Regulation 3**

### *Marking and labelling*

- 1 Packages containing a harmful substance shall be durably marked with the correct technical name (trade names alone shall not be used) and, further, shall be durably marked or labelled to indicate that the substance is a marine pollutant. Such identification shall be supplemented where possible by any other means, for example, by use of the relevant United Nations number.
- 2 The method of marking the correct technical name and of affixing labels on packages containing a harmful substance shall be such that this information will still be identifiable on packages surviving at least three months' immersion in the sea. In considering suitable marking and labelling, account shall be taken of the durability of the materials used and of the surface of the package.
- 3 Packages containing small quantities of harmful substances may be exempted from the marking requirements.\*

## **Regulation 4\*\***

### *Documentation*

- 1 In all documents relating to the carriage of harmful substances by sea where such substances are named, the correct technical name of each such substance shall be used (trade names alone shall not be used) and the substance further identified by the addition of the words "MARINE POLLUTANT".
- 2 The shipping documents supplied by the shipper shall include, or be accompanied by, a signed certificate or declaration that the shipment offered for carriage is properly packaged and marked, labelled or placarded as appropriate and in proper condition for carriage to minimize the hazard to the marine environment.
- 3 Each ship carrying harmful substances shall have a special list or manifest setting forth the harmful substances on board and the location thereof. A detailed stowage plan which sets out the location of the harmful substances on board may be used in place of such special list or manifest. Copies of such documents shall also be retained on shore by the owner of the ship or his representative until the harmful substances are unloaded. A copy of one of these documents shall be made

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\* Refer to the specific exemptions provided for in the IMDG Code adopted by resolution MSC.122(75), as amended.

\*\* Reference to "documents" in this regulation does not preclude the use of electronic data processing (EDP) and electronic data interchange (EDI) transmission techniques as an aid to paper documentation.

available before departure to the person or organization designated by the port State authority.

- 4 At any stopover, where any loading or unloading operations, even partial, are carried out, a revision of the documents listing the harmful substances taken on board, indicating their location on board or showing a detailed stowage plan, shall be made available before departure to the person or organization designated by the port State authority.
- 5 When the ship carries a special list or manifest or a detailed stowage plan, required for the carriage of dangerous goods by the International Convention for the Safety of Life at Sea, 1974, as amended, the documents required by this regulation may be combined with those for dangerous goods. Where documents are combined, a clear distinction shall be made between dangerous goods and harmful substances covered by this Annex.

### **Regulation 5**

#### *Stowage*

Harmful substances shall be properly stowed and secured so as to minimize the hazards to the marine environment without impairing the safety of the ship and persons on board.

### **Regulation 6**

#### *Quantity limitations*

Certain harmful substances may, for sound scientific and technical reasons, need to be prohibited for carriage or be limited as to the quantity which may be carried aboard any one ship. In limiting the quantity, due consideration shall be given to size, construction and equipment of the ship, as well as the packaging and the inherent nature of the substances.

### **Regulation 7**

#### *Exceptions*

- 1 Jettisoning of harmful substances carried in packaged form shall be prohibited, except where necessary for the purpose of securing the safety of the ship or saving life at sea.
- 2 Subject to the provisions of the present Convention, appropriate measures based on the physical, chemical and biological properties of harmful substances shall be taken to regulate the washing of leakages overboard, provided that compliance with such measures would not impair the safety of the ship and persons on board.

**Regulation 8***Port State control on operational requirements\**

- 1 A ship when in a port or an offshore terminal of another Party is subject to inspection by officers duly authorized by such Party concerning operational requirements under this Annex, where there are clear grounds for believing that the master or crew are not familiar with essential shipboard procedures relating to the prevention of pollution by harmful substances.
- 2 In the circumstances given in paragraph 1 of this regulation, the Party shall take such steps as will ensure that the ship shall not sail until the situation has been brought to order in accordance with the requirements of this Annex.
- 3 Procedures relating to the port State control prescribed in article 5 of the present Convention shall apply to this regulation.
- 4 Nothing in this regulation shall be construed to limit the rights and obligations of a Party carrying out control over operational requirements specifically provided for in the present Convention.

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\* Refer to the Procedures for port State control adopted by the Organization by resolution A.787(19) and amended by A.882(21).

## APPENDIX TO ANNEX III

### Criteria for the identification of harmful substances in packaged form

For the purposes of this Annex, substances identified by any one of the following criteria are harmful substances\*:

#### Category: Acute 1

96 hr LC <sub>50</sub> (for fish)	≤ 1 mg/l and/or
48 hr EC <sub>50</sub> (for crustacea)	≤ 1 mg/l and/or
72 or 96 hr ErC <sub>50</sub> (for algae or other aquatic plants)	≤ 1 mg/l

#### Category: Chronic 1

96 hr LC <sub>50</sub> (for fish)	≤ 1 mg/l and/or
48 hr EC <sub>50</sub> (for crustacea)	≤ 1 mg/l and/or
72 or 96 hr ErC <sub>50</sub> (for algae or other aquatic plants)	≤ 1 mg/l

and the substance is not rapidly degradable and/or the log K<sub>ow</sub> ≥ 4 (unless the experimentally determined BCF < 500).

#### Category: Chronic 2

96 hr LC <sub>50</sub> (for fish)	>1 to ≤ 10 mg/l and/or
48 hr EC <sub>50</sub> (for crustacea)	>1 to ≤ 10 mg/l and/or
72 or 96 hr ErC <sub>50</sub> (for algae or other aquatic plants)	>1 to ≤ 10 mg/l

and the substance is not rapidly degradable and/or the log K<sub>ow</sub> ≥ 4 (unless the experimentally determined BCF < 500), unless the chronic toxicity NOECs are > 1 mg/l.

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\* The criteria are based on those developed by the United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS), as amended.  
For definitions of acronyms or terms used in this appendix, refer to the relevant paragraphs of the IMDG Code.

**ANNEX 12**

**RESOLUTION MEPC.155(55)  
Adopted on 13 October 2006**

**AMENDMENTS TO THE CONDITION ASSESSMENT SCHEME**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee (the Committee) conferred upon it by international conventions for the prevention and control of marine pollution,

NOTING article 16 of the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1973 Convention") and article VI of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973 (hereinafter referred to as the "1978 Protocol") which together specify the amendment procedure of the 1978 Protocol and confer upon the appropriate body of the Organization the function of considering and adopting amendments to the 1973 Convention, as modified by the 1978 Protocol (MARPOL 73/78),

NOTING ALSO that regulation 13G of Annex I of MARPOL 73/78 specifies that the Condition Assessment Scheme, adopted by resolution MEPC.94(46), may be amended provided such amendments shall be adopted, brought into force and take effect in accordance with the provisions of article 16 of the 1973 Convention relating to amendment procedures applicable to an appendix to an Annex,

RECOGNIZING the need to amend the Condition Assessment Scheme in respect of the proceedings where there is a change of flag, ownership or recognized organization affecting an oil tanker holding a valid Statement of Compliance, or a change of flag during a Condition Assessment Scheme survey,

HAVING CONSIDERED, at its fifty-fifth session, the proposed amendments to the Condition Assessment Scheme,

1. ADOPTS, in accordance with article 16(2)(d) of the 1973 Convention, the amendments to the Condition Assessment Scheme, the text of which is set out at Annex to the present resolution;
2. DETERMINES, in accordance with article 16(2)(f)(iii) of the 1973 Convention, that the amendments shall be deemed to have been accepted on 1 September 2007, unless, prior to that date, not less than one third of the Parties to MARPOL 73/78 or Parties the combined merchant fleets of which constitute not less than 50 per cent of the gross tonnage of the world's merchant fleet, have notified to the Organization their objections to the amendments;
3. INVITES Parties to MARPOL 73/78 to note that, in accordance with article 16(2)(g)(ii) of the 1973 Convention, the said amendments shall enter into force on 1 March 2008 upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article 16(2)(e) of the 1973 Convention, to transmit to all Parties to MARPOL 73/78 certified copies of the present resolution and the text of the amendments contained in the Annex;

5. REQUESTS FURTHER the Secretary-General to transmit copies of this resolution and its Annex to Members of the Organization which are not Parties to MARPOL 73/78;

6. INVITES the Maritime Safety Committee to note the amendments to the Condition Assessment Scheme and take action as appropriate in the review of the Guidelines on the Enhanced Programme of Inspections during Surveys of Bulk Carriers and Oil Tankers adopted by resolution A.744(18), as amended.

ANNEX

**AMENDMENTS TO THE CONDITION ASSESSMENT SCHEME (CAS)  
(RESOLUTION MEPC.94(46), AS AMENDED)**

1 In Table 7.3.3, at the end of the entry “.1 Each deck plate”, the following text is added: “(see note)”.

2 A note is added below Table 7.3.3 as follows:

“Note:

In conjunction with thickness measurement procedures, in case of concern regarding residual throat thickness of the fillet weld between the deck plate and deck longitudinals or possible detachment of a deck longitudinal member, the attending surveyor may refer to the Guidelines on the assessment of residual fillet weld between deck plating and longitudinals adopted by resolution MEPC.147(54).”

3 The annex to resolution MEPC.94(46), as amended, is further amended by deleting and replacing the existing paragraphs 13.8, 13.9 and 13.10 with the following new paragraphs:

“13.8 The flag Administration may consider and declare that the Statement of Compliance of a ship entitled to fly its flag remains valid and in full force and effect if:

- .1 a change in ownership of the ship should occur; or
- .2 there is a change in the RO from the RO that performed the CAS survey work and prepared the CAS final report, which was reviewed and accepted by the Administration for the issuance of the Statement of Compliance by the Administration, to a new RO acceptable to the Administration, and that all information required to be submitted under the requirements of this resolution has been provided to the new RO; or
- .3 the safe operation and maintenance of the ship is assumed by a Company, as defined in SOLAS chapter IX, other than the one that was operating the ship at the time of the completion of the CAS survey; or
- .4 any combination of 13.8.1, 13.8.2 and 13.8.3 should simultaneously occur;

provided that the Administration:

- .5 maintains the same period of validity; and
- .6 co-ordinates the transmittal of specific information, requirements, and procedures concerning the maintenance of the validity of the CAS Statement of Compliance in question to the new owner and/or Company, which shall remain those adopted by the Administration at the time of the issue of the original Statement of Compliance.

13.9 The Administration shall suspend and/or withdraw the Statement of Compliance of a ship if it is no longer considered to be compliant with the requirements of the CAS.

13.10 The Administration may reinstate a suspended and/or withdrawn Statement of Compliance when it is satisfied that the requirements of the CAS are again being met, but not beyond the limits of the period and the terms and conditions of validity of the Statement of Compliance previously established by the Administration.

13.11 The Administration shall withdraw the Statement of Compliance of a ship if it is no longer entitled to fly its flag.

13.12 If a ship to which a valid Statement of Compliance has already been issued is transferred to the flag of another Party, the new Administration may consider issuing a new Statement of Compliance to that ship on the basis of the Statement of Compliance issued by the previous Administration, provided that the new Administration obtains from the previous Administration:

- .1 a certified copy of the Statement of Compliance that the ship was issued with at the time of the transfer;
- .2 a statement certifying that the RO, which provided the CAS Final Report to the previous Administration, is an RO authorized to act on its behalf;
- .3 a status report from the RO that provided the CAS Final Report to the previous Administration that, at the time of transfer, all the terms and conditions justifying the issuance of the Statement of Compliance to that ship are still valid and being maintained; and
- .4 a copy of both the CAS Final Report and the complete Review Record of all the CAS documentation relating to that ship, which the previous Administration has compiled for the issue or renewal and the maintenance of the validity of the Statement of Compliance that the ship was issued with at the time of the transfer.

13.13 With a change of flag, for the issuance of an Interim Statement of Compliance issued for a period of not more than 90 days to allow the continued operation of the ship while the new Administration performs a technical review and assessment of the CAS Final Report and Review Record, the new Administration shall need only to depend upon the certifications and status report referred to in paragraph 13.12 and provided by the previous Administration and the responsible RO.

13.14 On satisfactory completion of the technical review and assessment of the CAS Final Report and Review Record by the new Administration, under the circumstance of a change of flag as described in paragraph 13.12, a full term Statement of Compliance may be issued by the new Administration limited to the period and no less than the terms and conditions of validity of the Statement of Compliance issued by the previous Administration. In the event the review is unsatisfactory, the new Administration shall revert to the provisions of paragraphs 13.9 and 13.10.

13.15 Should a change of flag take place during the course of a CAS survey, the new Administration shall determine at what point in the CAS Schedule provided in annex 3 to MEPC/Circ.390 and under what conditions it will assume responsibility for and allow the CAS survey to continue. Sufficient documentation should be provided by the shipowner and the responsible RO to the new Administration upon which to make its decision.”

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**ANNEX 1****RESOLUTION MEPC.149(55)  
Adopted on 13 October 2006****GUIDELINES FOR BALLAST WATER EXCHANGE DESIGN AND  
CONSTRUCTION STANDARDS (G11)**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee conferred upon it by the international conventions for the prevention and control of marine pollution,

RECALLING ALSO that the International Conference on Ballast Water Management for Ships held in February 2004 adopted the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004 (the Ballast Water Management Convention) together with four Conference resolutions,

NOTING that Regulation A-2 of the Ballast Water Management Convention requires that discharge of ballast water shall only be conducted through Ballast Water Management in accordance with the provisions of the Annex to the Convention,

NOTING FURTHER that Regulation D-1 of the Ballast Water Management Convention stipulates that ships performing ballast water exchange shall do so with an efficiency of at least 95 per cent volumetric exchange of ballast water and that MEPC 51 identified the need for additional guidance on design and construction standards for ships conducting ballast water exchange,

NOTING ALSO that resolution 1 adopted by the International Conference on Ballast Water Management for Ships invited the Organization to develop the Guidelines for uniform application of the Convention as a matter of urgency,

HAVING CONSIDERED, at its fifty-fifth session, the draft Guidelines for ballast water exchange design and construction standards (G11) developed by the Ballast Water Working Group, and the recommendation made by the Sub-Committee on Bulk Liquids and Gases at its tenth session,

1. ADOPTS the Guidelines for ballast water exchange design and construction standards (G11);
2. INVITES Governments to apply the Guidelines as soon as possible, or when the Convention becomes applicable to them; and
3. AGREES to keep the Guidelines under review.

## ANNEX

### **GUIDELINES FOR BALLAST WATER EXCHANGE DESIGN AND CONSTRUCTION STANDARDS (G11)**

#### **1 INTRODUCTION**

##### **Purpose**

1.1 These Guidelines outline recommendations for the design and construction of ships to assist compliance with Regulation D-1 (*Ballast Water Exchange Standard*) of the International Convention for the Control and Management of Ships' Ballast Water and Sediments (the Convention).

1.2 These Guidelines have been developed to give guidance to shipbuilders, ship designers, owners and operators of ships in designing safe, environmentally acceptable, technically achievable, practicable, and cost effective ballast water exchange as required in Regulation D-1.

1.3 These Guidelines should be applied without compromising the ship's safety and operational efficiency and taking into account the design of ship types, which may have special safety considerations for example container ships and bulk carriers.

#### **2 DEFINITIONS**

2.1 For the purposes of these Guidelines, the definitions in the Convention apply and:

- .1 "Ballast Water Tank" – means any tank, hold or space used for the carriage of ballast water as defined in Article 1 of the Convention.
- .2 "Sequential Method" – means a process by which a ballast tank intended for the carriage of ballast water is first emptied and then re-filled with replacement ballast water to achieve at least a 95 per cent volumetric exchange.
- .3 "Flow-through Method" – means a process by which the replacement ballast water is pumped into a ballast tank intended for the carriage of ballast water, allowing water to flow through overflow or other arrangements.
- .4 "Dilution Method" – means a process by which replacement ballast water is filled through the top of the ballast tank intended for the carriage of ballast water with simultaneous discharge from the bottom at the same flow rate and maintaining a constant level in the tank throughout the ballast exchange system.

### **3 BALLAST WATER EXCHANGE – DESIGN AND CONSTRUCTION CONSIDERATIONS**

#### **General considerations**

3.1 When designing and constructing a ship that will operate with ballast water exchange the following considerations should be taken into account:

- .1 maximizing the efficiency of ballast water exchange;
- .2 increasing the range of sea conditions under which ballast water exchange may be conducted safely;
- .3 shortening the time to complete ballast water exchange (thereby increasing the types of voyages under which ballast water exchange can be undertaken safely); and
- .4 minimizing the accumulation of sediments (refer to Guidelines on design and construction to facilitate sediment control on ships (G12)).

#### **Consideration at the design phase of new ships**

3.2 When designing new ships the following aspects related to ballast water management equipment should be considered:

- .1 ballast water management and the processes chosen to achieve it, should be considered as a component of the ship's design;
- .2 design and installation of the ballast water pumping and piping system should ensure that ease of operation and maintenance is maximized;
- .3 ballast tank design should facilitate all aspects of ballast water management;
- .4 installation of monitoring and/or recording equipment for all ballast water operations and treatment processes. If any records are automatically recorded by the equipment they should be in a format that can easily be retained and be made readily available to appropriate authorities;
- .5 remote data management;
- .6 the design of the ballast water exchange system should be such that it facilitates future compliance of the standards set in Regulation D-2 of the Convention, minimizing the need to install new equipment/retrofitting and to carry out dry-docking and/or hot work. It should reduce, as far as possible, the costs of any adaptation for this purpose. Special consideration should be given to the feasibility of combining ballast water exchange methods with ballast water treatment technologies, aiming at meeting, in the future, the standards of Regulation D-2. Adequate spaces for new complementary equipment and pipelines, which may be necessary to meet future standards D-2, should also be considered and planned.

3.3 Where designing new ships ballast water systems designs should take special account of the need for sampling the ballast water by port State control or other authorized organizations. The arrangements should be such that samples as required by the Guidelines for ballast water sampling (G2) can be taken. The sampling arrangements should enhance the quality and ease of sampling of ballast water or sediments, without the need to enter potentially dangerous spaces or partially filled ballast tanks.

3.4 Where ballast water exchange at sea is the chosen method, when designing new ships the following aspects should be considered:

- .1 design of ship structures to enable ballast water exchange to be conducted at various sea states/swell conditions and provide to the ship information on the maximum sea state that ballast water exchange can be conducted;
- .2 minimize the burden on ships crew (e.g. minimize the number of operational steps, the number of partially loaded tanks and the time taken);
- .3 minimize the risk of tank over/under pressurization;
- .4 minimize the flow of ballast water on deck;
- .5 maintaining bridge visibility standards (SOLAS V/22), propeller immersion and minimum draft forward at any stage of a designed ballast water exchange operation;
- .6 the consequences of ballast water exchange at sea, including stability, hull girder strength, shear forces, torsional stresses, resonance, sloshing, slamming and propeller immersion.

3.5 The ballast water exchange methods currently in use are the sequential, flow-through (tank overflow) and dilution methods:

- .1 where the sequential method is to be used, particular attention should be given to the ballast tank layout, total ballast capacity, individual tank configuration and hull girder strength. If the plan requires simultaneously emptying and refilling closely matched diagonal tanks then consequential torsional stresses should be considered. Still water bending moments, shear forces and stability should remain at or within safe limits;
- .2 where the flow through method is to be used adequate provision should be made to avoid the risk of over pressurization of ballast tanks or ballast piping. The installation of additional air pipes, access hatches (as an alternative to deck manholes), internal overflow pipes (to avoid flowing over the deck) and interconnecting ballast trunks between tanks where applicable and possible may be considered. Water on decks and/or direct contact poses a safety and occupational health hazard to personnel. The design should, where possible, be such that it avoids water overflowing directly on to decks to avoid the direct contact by personnel with the ballast water;

- .3 where the dilution method is to be used adequate provision should be made for appropriate piping arrangements to facilitate the ballast water pumping into the previously ballasted tanks through the top of the ballast tank and, simultaneously, discharging the ballast water through the bottom of the tank at the same flow rate while maintaining a constant ballast water level in the tank throughout the exchange operation. Adequate provision should also be made to avoid the risk of over pressurization of ballast tanks or ballast piping. The hydrodynamic performance of the ballast tank is crucial to ensure full water exchange and sediment scouring.

#### **4 DESIGN CONSIDERATIONS TO ENHANCE MANAGEMENT, CONTROL AND OPERATIONAL STRATEGIES**

##### **Sea chests**

4.1 The following should be considered:

- .1 sea chest design should be such that sediment accumulation is minimized; and
- .2 provision of a high sea chest.

##### **Ballast tanks**

4.2 The design of ballast tanks should also take account of the Guidelines on design and construction to facilitate sediment control on ships (G12).

##### **Ship-to-shore ballast transfer arrangements**

4.3 If consideration is given to providing ship-to-shore connections to transfer ballast to shore-based ballast water reception facilities, the arrangements should be compatible with a recognized standard such as those in the Oil Companies International Marine Forum (OCIMF) "Recommendations for Oil Tankers Manifolds and Associated Equipment". It is recognized that this standard was originally produced for oil transfer connections, however the general principles in this standard can be applied to connections for ballast transfer in particular the sections related to flanges and connection methods.

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**ANNEX 2****RESOLUTION MEPC.150(55)  
Adopted on 13 October 2006****GUIDELINES ON DESIGN AND CONSTRUCTION TO FACILITATE  
SEDIMENT CONTROL ON SHIPS (G12)**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee conferred upon it by the international conventions for the prevention and control of marine pollution,

RECALLING ALSO that the International Conference on Ballast Water Management for Ships held in February 2004 adopted the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004 (the Ballast Water Management Convention) together with four Conference resolutions,

NOTING that Regulation A-2 of the Ballast Water Management Convention requires that discharge of ballast water shall only be conducted through Ballast Water Management in accordance with the provisions of the Annex to the Convention,

NOTING FURTHER that Regulation B-5.2 of the Ballast Water Management Convention provides that, ships constructed in or after 2009 should, without compromising safety or operational efficiency, be designed and constructed with a view to minimize the uptake and undesirable entrapment of sediments, facilitate removal of sediments, and provide safe access to allow for sediment removal and sampling taking into account Guidelines developed by the Organization,

NOTING ALSO that resolution 1 adopted by the International Conference on Ballast Water Management for Ships invited the Organization to develop these Guidelines as a matter of urgency,

HAVING CONSIDERED, at its fifty-fifth session, the draft Guidelines on design and construction to facilitate sediment control on ships developed by the Ballast Water Working Group, and the recommendation made by the Sub-Committee on Bulk Liquids and Gases at its tenth session,

1. ADOPTS the Guidelines on design and construction to facilitate sediment control on ships as set out in the Annex to this resolution;
2. INVITES Governments to apply the Guidelines as soon as possible, or when the Convention becomes applicable to them; and
3. AGREES to keep the Guidelines under review.

## ANNEX

### **GUIDELINES ON DESIGN AND CONSTRUCTION TO FACILITATE SEDIMENT CONTROL ON SHIPS (G12)**

#### **1 PURPOSE**

1.1 Regulation B-5.2 of the Convention requires that ships described in Regulations B-3.3 to B-3.5 should, without compromising safety or operational efficiency, be designed and constructed with a view to minimize the uptake and undesirable entrapment of sediments, facilitate removal of sediments and provide safe access to allow for sediment removal and sampling, taking into account these Guidelines. Ships described in Regulation B-3.1 of the Convention should, to the extent practicable, also comply with Regulation B-5.2 taking into account these Guidelines.

1.2 The purpose of these Guidelines is to provide guidance to ship designers, ship builders, owners and operators in the development of ship structures and equipment to achieve the objectives of paragraph 1.1 and thereby, reduce the possibility of introducing harmful aquatic organisms and pathogens.

1.3 There may be a conflict between preventing accumulation of sediments and preventing the discharge of harmful aquatic organisms and pathogens.

#### **2 INTRODUCTION**

2.1 Water taken up as ships' ballast can contain solid alluvial matter that, once the water is becalmed in a ship's ballast tank, will settle out onto the bottom of the tank and other internal structures.

2.2 Aquatic organisms can also settle out of the ballast water and can continue to exist within the sediment. These organisms can survive for long periods after the water they were originally in has been discharged. They may thereby be transported from their natural habitat and discharged in another port or area where they may cause injury or damage to the environment, human health, property and resources.

2.3 Regulation B-5.1 of the Convention requires that all ships remove and dispose of sediments from spaces designated to carry ballast water in accordance with the Ballast Water Management Plans. These Guidelines are to assist ship designers, ship builders, owners and operators to design ships to minimise the retention of sediment. Guidance on the management of sediment is contained in the Guidelines for Ballast Water Management and the Development of Ballast Water Management Plans (G4).

#### **3 DEFINITIONS**

3.1 For the purposes of these Guidelines, the definitions in the International Convention for the Control and Management of Ships' Ballast Water and Sediments (the Convention) apply.

3.2 Ballast Water Tank – for the purposes of these Guidelines a ballast water tank is any tank, hold or space used for the carriage of ballast water as defined in Article 1 of the Convention.

#### 4 DESIGN FOR REDUCING ACCUMULATION OF SEDIMENT

4.1 Ballast water tanks and their internal structure should be designed to avoid the accumulation of sediment in a ballast tank. The following should, as far as is practicable, be taken into account when designing ballast tanks:

- .1 horizontal surfaces to be avoided wherever possible;
- .2 where longitudinals are fitted with face bar stiffeners, consideration should be given to fit the face bar stiffeners below the horizontal surfaces to aid drain off from the stiffeners;
- .3 arrange for induced flows of water, either by pump forces or gravitational forces, to wash along horizontal or near horizontal surfaces so that it re-suspends already settled sediment;
- .4 where horizontal stringers or webs are required, drainage holes to be as large as possible, especially if edge toe-stops are fitted where horizontal stringers are used as walkways, to encourage rapid flow of water off them as the water level in the tank falls;
- .5 internal girders, longitudinals, stiffeners, intercostals and floors, where fitted should incorporate extra drain holes which allow water to flow with minimal restriction during discharge and stripping operations;
- .6 where inner members butt against bulkheads, their installation should be such as to prevent the formation of stagnant pools or sediment traps;
- .7 scallops should be located at the joints of the inner bottom (tank top) longitudinals or intercostals and floors to allow for good airflow, and thus drying out of an empty tank. This will also allow air to escape to the air pipe during filling so that minimum air is trapped within the tank;
- .8 pipeline systems should be designed such that, when deballasting, disturbance of the water in the tank is as powerful as possible, so that the turbulence re-suspends sediment; and
- .9 flow patterns in ballast water tanks should be studied (for example by the use of Computational Fluid Dynamics (CFD)) and considered, so that internal structure can be designed to provide effective flushing. The amount of internal structure in double bottom tanks will reduce the scope for improving flow patterns. The hydrodynamic performance of the ballast tank is crucial to ensure sediment scouring.

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4.2 Any designs depending upon water flow to re-suspend sediment should, as far as possible be independent of human intervention, in order that the work load of ships' crews is minimal when operating the system.

4.3 The benefits of design concepts for reducing sediment accumulation are that there is likely to be good sediment removal while deballasting, with minimum retention of sediment in the tanks, and therefore a reduction or no need for removal by other means.

4.4 The design of all ships should provide safe access to allow for sediment removal and sampling.

4.5 The design of ballast water tanks should facilitate installation of high sea suction points on each side of the tank.

4.6 When practical, equipment to remove suspended matter at the point of uptake should be installed.

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**ANNEX 3****RESOLUTION MEPC.151(55)****Adopted on 13 October 2006****GUIDELINES ON DESIGNATION OF AREAS FOR BALLAST WATER EXCHANGE (G14)**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee conferred upon it by the international conventions for the prevention and control of marine pollution,

RECALLING ALSO that the International Conference on Ballast Water Management for Ships held in February 2004 adopted the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004 (the Ballast Water Management Convention) together with four Conference resolutions,

NOTING that Regulation A-2 of the Ballast Water Management Convention requires that discharge of ballast water shall only be conducted through Ballast Water Management in accordance with the provisions of the Annex to the Convention,

NOTING FURTHER that regulation B-4.2 of the Convention stipulates that in sea areas where the distance from the nearest land or the depth does not meet the parameters described in Regulation B-4.1, the port State may designate areas, in consultation with adjacent or other States, as appropriate, where a ship may conduct ballast water exchange and MEPC 52 identified the need for additional guidance on the designation of areas for ballast water exchange,

NOTING ALSO that resolution 1 adopted by the International Conference on Ballast Water Management for Ships invited the Organization to develop the Guidelines for uniform application of the Convention as a matter of urgency,

HAVING CONSIDERED, at its fifty-fifth session, the draft Guidelines on designation of areas for ballast water exchange (G14) developed by the Ballast Water Working Group, and the recommendation made by the Sub-Committee on Bulk Liquids and Gases at its tenth session,

1. ADOPTS the Guidelines on designation of areas for ballast water exchange (G14) as set out in the Annex to this resolution;
2. INVITES Governments to apply the Guidelines as soon as possible, or when the Convention becomes applicable to them; and
3. AGREES to keep the Guidelines under review.

## ANNEX

### **GUIDELINES ON DESIGNATION OF AREAS FOR BALLAST WATER EXCHANGE (G14)**

#### **1 PURPOSE**

1.1 The purpose of these Guidelines is to provide guidance to port States for the identification, assessment and designation of sea areas where ships may conduct ballast water exchange in accordance with Regulation B-4.2 of the International Convention for the Control and Management of Ships' Ballast Water and Sediments (the Convention).

#### **2 INTRODUCTION**

2.1 Regulation B-4.2 of the Convention allows port States to designate areas, in consultation with adjacent or other States, as appropriate, where ships may conduct ballast water exchange.

2.2 These Guidelines provide generic guidance to promote uniform application of Regulation B-4.2 in designating areas for ballast water exchange to minimize the risk of introduction of harmful aquatic organisms and pathogens. Party or Parties designating an area according to Regulation B-4.2 should endeavour not to impair or damage their environment, human health, property or resources or those of other States (under Article 2.6 of the Convention).

#### **3 APPLICATION**

3.1 These Guidelines are intended for port States considering and intending to designate areas for ballast water exchange in accordance with Regulation B-4.2. Regulation B-4.2 states that "in sea areas where the distance from the nearest land or the depth does not meet the parameters described in paragraph 1.1 or 1.2, the port State may designate areas, in consultation with adjacent or other States, as appropriate, where a ship may conduct Ballast Water exchange".

#### **4 DEFINITIONS**

4.1 For the purposes of these Guidelines, the definitions in the Convention apply.

#### **5 PROCESS FOR THE DESIGNATION OF SEA AREAS FOR BALLAST WATER EXCHANGE**

5.1 There are three integral steps to designating an area as a ballast water exchange area: identification, assessment and designation. The Guidelines provide criteria to address and consider for each of these steps (see sections 7, 8 and 9), however these criteria are not intended to be exhaustive.

5.2 A port State considering designating ballast water exchange areas shall do this in accordance with its rights and obligations under international law.

## **6 CONSULTATION AND REGIONAL CO-OPERATION**

6.1 The port State should consult with adjacent or other States, as appropriate, when identifying, assessing and designating potential ballast water exchange areas. It must be recognized that some States may not be a Party to the Convention, however this should not negate the consultation process. The port State initiating the consultation process should exchange information and should take into account all views and comments of the adjacent and other States as far as practicable. States should endeavour to resolve any identified concerns.

6.2 If multiple Parties wish to jointly designate ballast water exchange areas, they could do so under Article 13.3 of the Convention through a regional agreement.

## **7 IDENTIFICATION OF POTENTIAL SEA AREAS FOR BALLAST WATER EXCHANGE**

7.1 Depending upon the nature of the seas surrounding the port State, it may be considered appropriate for single or multiple ballast water exchange areas to be identified.

7.2 The following considerations should be taken into account when identifying potential sea area(s) for undertaking ballast water exchange:

### **Legal aspects**

7.2.1 Any national or international legal requirements or obligations should be considered in identifying potential sea areas for designation under Regulation B-4.2.

7.2.2 Sea areas beyond the jurisdiction of a port State may provide the most practical and appropriate area for ballast water exchange. A Party should not designate ballast water exchange areas in waters under the jurisdiction of another State, without its agreement and consultation with adjacent and other States. Consultation should be initiated as soon as possible in the process to facilitate exchange of information and agreement for the designation of the ballast water exchange area (see section 6).

### **Important resources and protected areas**

7.2.3 In the designation of ballast water exchange area, Parties should consider and avoid, to the extent practicable, potential adverse impact in aquatic areas protected under national or international law, as well as other important aquatic resources including those of economic and ecological importance.

### **Navigational constraints**

7.2.4 Any designation of ballast water exchange areas should take into account navigation impacts, including the desirability of minimizing delays, as appropriate, taking into consideration the following:

- .1 the area should be on existing routes if possible,
- .2 if the area cannot be on existing routes, it should be as close as possible to them.

7.2.5 Constraints to safe navigation must be considered when selecting the location and size of the ballast water exchange area. Such considerations should include, but are not limited to:

- .1 increased shipping traffic congestion;
- .2 proximity to other vessel traffic (small craft, offshore platforms, etc.);
- .3 adequate aids to navigation;
- .4 security of the area; and
- .5 shipping lanes/routeing systems.

## 8 ASSESSMENT OF IDENTIFIED SEA AREAS

8.1 Risk assessment is a logical process for objectively assigning the likelihood and consequences of specific events. Risk assessments can be qualitative or quantitative, and can be a valuable decision aid if completed in a systematic and rigorous manner.

8.1.1 The following key principles define the nature and performance of risk assessment:

- .1 **Effectiveness** – That risk assessments accurately measure the risks to the extent necessary to achieve an appropriate level of protection.
- .2 **Transparency** – That the reasoning and evidence supporting the actions recommended by risk assessments, and areas of uncertainty (and their possible consequences to those recommendations), are clearly documented and made available to decision-makers.
- .3 **Consistency** – That risk assessments achieve a uniform high level of performance, using a common process and methodology.
- .4 **Comprehensiveness** – That the full range of values, including economic, environmental, social and cultural, are considered when assessing risks and making recommendations.
- .5 **Risk Management** – Low risk scenarios may exist, but zero risk is not obtainable, and as such risk should be managed by determining the acceptable level of risk in each instance.
- .6 **Precautionary** – That risk assessments incorporate a level of precaution when making assumptions, and making recommendations, to account for uncertainty, unreliability, and inadequacy of information. The absence of, or uncertainty in, any information should therefore be considered an indicator of potential risk.
- .7 **Science based** – That risk assessments are based on the best available information that has been collected and analysed using scientific methods.
- .8 **Continuous improvement** – Any risk model should be periodically reviewed and updated to account for improved understanding.

8.2 The identified ballast water exchange area(s) should be assessed in order to ensure that its designation will minimize any threat of harm to the environment, human health, property or resources taking into account but not limited to the following criteria:

8.2.1 **Oceanographic** (e.g., currents, depths)

- Currents, upwellings or eddies should be identified and considered in the evaluation process. Sea areas where currents disperse discharged ballast water away from land should be selected where possible.
- Areas where tidal flushing is poor or where a tidal stream is known to be turbid, should be avoided where possible.
- The maximum water depth available should be selected where possible.

8.2.2 **Physico-chemical** (e.g., salinity, nutrients, dissolved oxygen, chlorophyll 'a')

- High nutrient areas should be avoided where possible.

8.2.3 **Biological** (e.g., presence of Harmful Aquatic Organisms and Pathogens, including cysts; organisms density)

- Areas known to contain outbreaks, infestations, or populations of Harmful Aquatic Organisms and Pathogens (e.g. harmful algal blooms) which are likely to be taken up in Ballast Water, should be identified and avoided where possible.

8.2.4 **Environmental** (e.g., pollution from human activities)

- Sea area(s) that may be impacted by pollution from human activities (e.g., areas nearby sewage outfalls) where there may be increased nutrients or where there may be human health issues, should be avoided where possible.
- Sensitive aquatic areas should be avoided to the extent practicable.

8.2.5 **Important resources** (e.g., fisheries areas, aquaculture farms)

- Location of important resources, such as key fisheries areas and aquaculture farms should be avoided.

8.2.6 **Ballast water operations** (e.g., quantities, source, frequency)

- A foreseen estimation of the quantities, sources and frequencies of ballast water discharges from vessels that will use the designated sea area should be considered in the assessment of such area.

8.3 An assessment of the most appropriate size of the designated ballast water exchange area needs to take into account the above considerations.

## **9 DESIGNATION OF SEA AREAS FOR BALLAST WATER EXCHANGE**

9.1 The location and size that provide the least risk to the aquatic environment, human health, property or resources should be selected for designation. The spatial limits of the ballast water exchange area/s should be clearly defined and shall be in accordance with international law. It may also be possible for the designation of a ballast water exchange area to apply over specified timeframes, and these should be clearly defined.

9.2 A baseline evaluation should be conducted to aid future monitoring and review. The process of identification and assessment may provide sufficient information for the baseline.

## **10 COMMUNICATION**

10.1 A Party or Parties intending to designate areas for ballast water exchange under Regulation B-4.2 should communicate this intention to the Organization prior to the implementation of the designated ballast water exchange area. Such communication should include:

- .1 The precise geographical co-ordinates, depth limit and/or distance from nearest land that defines the designated ballast water exchange area.
- .2 Other information that may be relevant to facilitate ships' identification of the designated ballast water exchange area, for example navigation aids.
- .3 Details of the characteristics of the designated ballast water exchange area that may be relevant to assist ships plan their voyage, including: use of area by other traffic, current and tidal flow, wind and swell conditions, seasonal events (cyclones, typhoons, ice, etc.).

10.2 The Organization shall circulate information regarding designated ballast water exchange areas to the Members of the Organization.

10.3 Port States should provide adequate advice to ships on the location and terms of use of the designated ballast water exchange area. Such advice may include exchanging as many tanks as possible under regulation B-4.1, as far as practicable taking into account regulation B-4.3, before utilizing the designated ballast water exchange area.

## **11 MONITORING AND REVIEW**

11.1 The use of the designated ballast water exchange area and any impacts on the aquatic environment, human health, property or resources of the port State or those of other States should be monitored and reviewed on a regular basis.

11.2 One reason for monitoring may be to document the occurrence of harmful aquatic organisms in such areas which may be introduced by ballast water exchange. In case harmful aquatic organisms are found to be introduced, the designated ballast water exchange area may be closed to avoid promoting the spread of such newly occurring species to other regions.

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**ANNEX 4****RESOLUTION MEPC.152(55)  
Adopted on 13 October 2006****GUIDELINES FOR SEDIMENT RECEPTION FACILITIES (G1)**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee conferred upon it by the international conventions for the prevention and control of marine pollution,

RECALLING ALSO that the International Conference on Ballast Water Management for Ships held in February 2004 adopted the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004 (the Ballast Water Management Convention) together with four Conference resolutions,

NOTING that Regulation A-2 of the Ballast Water Management Convention requires that discharge of ballast water shall only be conducted through Ballast Water Management in accordance with the provisions of the Annex to the Convention,

NOTING FURTHER that Article 5 of the Ballast Water Management Convention provides that, each Party undertakes to ensure that, in ports and terminals designated by that Party where cleaning or repair of ballast tanks occurs, adequate facilities are provided for the reception of sediments, taking into account the Guidelines developed by the Organization,

NOTING ALSO that resolution 1 adopted by the International Conference on Ballast Water Management for Ships invited the Organization to develop these Guidelines as a matter of urgency,

HAVING CONSIDERED, at its fifty-fifth session, the draft Guidelines for sediment reception facilities (G1) developed by the Ballast Water Working Group, and the recommendation made by the Sub-Committee on Flag State Implementation at its fourteenth session,

1. ADOPTS the Guidelines for sediment reception facilities (G1) as set out in the Annex to this resolution;
2. INVITES Governments to apply these Guidelines as soon as possible, or when the Convention becomes applicable to them; and
3. AGREES to keep these Guidelines under review.

## ANNEX

### **GUIDELINES FOR SEDIMENT RECEPTION FACILITIES (G1)**

#### **1 INTRODUCTION**

##### **Purpose**

1.1 The purpose of these guidelines is to provide guidance for the provision of facilities for the reception of sediments that are provided in accordance with Article 5 of the Convention. The guidance is also intended to encourage a worldwide uniform interface between such facilities and the ships without prescribing dedicated shoreside reception plants.

##### **Application**

1.2 These guidelines apply to sediment reception facilities referred to in the International Convention for the Control and Management of Ships' Ballast Water and Sediments (the Convention), Article 5 and Regulation B-5.

1.3 These guidelines do not apply to sediment from tanks other than ballast water tanks.

1.4 It is recognized that some countries, areas or ports have requirements or regulations relating to the disposal of waste materials including waste material from ships which may include sediment from ships ballast water tanks. These guidelines are not intended in any way to replace or adversely impact any local or national requirements or regulations concerning the disposal and/or treatment of sediment from ships ballast water tanks.

#### **2 DEFINITIONS**

2.1 For the purposes of these guidelines, the definitions in the Convention apply and:

- .1 "Ballast Water Tank" means any tank, hold or space used for the carriage of ballast water as defined in Article 1 of the Convention.

#### **3 GENERAL REQUIREMENTS FOR RECEPTION FACILITIES**

3.1 Article 5 of the Convention requires that: "reception facilities shall operate without causing undue delay to ships and shall provide for the safe disposal of such sediments that does not impair or damage their environment, human health, property or resources or those of other States."

3.2 A facility should provide the resources to enable, as far as practicable, their use by all ships wishing to discharge sediment from ballast water tanks.

3.3 Each Party shall report to the Organization and, where appropriate, make available to other Parties, information on the availability and location of any reception facilities for the environmentally safe disposal of sediments.

## **4 PROVISION OF SEDIMENT RECEPTION FACILITIES**

4.1 When considering the requirements of these facilities many factors will have to be taken into account, these should include but not be limited to:

- .1 regional, national and local legislation which will affect the facility and related to the items below;
- .2 site selection;
- .3 collection, handling and transport of sediment;
- .4 sampling, testing and analysis of sediment;
- .5 storage of sediment and storage conditions;
- .6 estimated required capacity (volume/weight) including moisture content of the sediment the facility will handle;
- .7 environmental benefits and costs;
- .8 proximity of available sites to local ballast tank cleaning and repair facilities;
- .9 effect on the environment in construction and operation of the facility;
- .10 training of facility staff;
- .11 equipment required to off load sediment from ships, such as cranes;
- .12 human health;
- .13 safety;
- .14 maintenance;
- .15 operational limitations; and
- .16 waterway access, approaches and traffic management.

## **5 TREATMENT, HANDLING AND DISPOSAL OF RECEIVED SEDIMENT**

5.1 Disposal, handling and treatment measures applied to the sediment shall avoid unwanted side effects that may create a risk to or damage to the Party's environment, human health, property or resources or those of other States.

5.2 Personnel involved in the handling of sediment should be aware of the possible risk to human health associated with sediment from ships ballast water tanks. Personnel should be adequately trained and be provided with suitable personal protective clothing and equipment.

## **6 CAPABILITIES OF A RECEPTION FACILITY**

6.1 Reception facilities should be designed, taking into account the ship types that may be anticipated to use them and consideration should be given to the requirements for ballast tank cleaning that may take place and of repair facilities in the area(s) the reception facility serves.

6.2 Details of the capabilities and any capacity limitations of reception process (facilities and equipments) should be made available to ships wishing to use the facility. The details made available to ships should include but not be limited to:

- .1 maximum capacity (volume or weight) of sediment;
- .2 maximum volume or weight that can be handled at any one time;
- .3 packaging and labelling requirements;
- .4 hours of operation;
- .5 ports, berths, areas where access to the facility is available;

- .6 ship-to-shore transfer details;
- .7 if ship or shore crew are required for the transfer;
- .8 contact details for the facility;
- .9 how to request use of the facility including any notice period and what information is required from the ship;
- .10 all applicable fees; and
- .11 other relevant information.

## **7 TRAINING**

7.1 Personnel in charge of and those employed in the provision of a sediment reception facility including the treatment and disposal of sediment, should have received adequate instruction. Frequent training should include but not be limited to:

- .1 the purpose and principles of the Convention;
- .2 the risks to the environment and human health;
- .3 risk associated with the handling of sediment including both general safety and human health risks;
- .4 safety;
- .5 adequate knowledge of the equipment involved;
- .6 a sufficient understanding of ships using the facility, and any operational constraints;
- .7 the ship/port communication interface; and
- .8 an understanding of local disposal controls.

7.2 The training should be organized by the manager or the operator of the reception facility and delivered by suitably qualified professionals.

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**ANNEX 5****RESOLUTION MEPC.153(55)  
Adopted on 13 October 2006****GUIDELINES FOR BALLAST WATER RECEPTION FACILITIES (G5)**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee conferred upon it by the international conventions for the prevention and control of marine pollution,

RECALLING ALSO that the International Conference on Ballast Water Management for Ships held in February 2004 adopted the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004 (the Ballast Water Management Convention) together with four Conference resolutions,

NOTING that Regulation A-2 of the Ballast Water Management Convention requires that discharge of ballast water shall only be conducted through Ballast Water Management in accordance with the provisions of the Annex to the Convention,

NOTING FURTHER that Regulation B-3.6 of the Ballast Water Management Convention provides that, the requirements of ballast water management standards do not apply to ships that discharge ballast water to a reception facility designed taking into account the Guidelines developed by the Organization for such facilities,

NOTING ALSO that resolution 1 adopted by the International Conference on Ballast Water Management for Ships invited the Organization to develop these Guidelines as a matter of urgency,

HAVING CONSIDERED, at its fifty-fifth session, the draft the Guidelines for ballast water reception facilities (G5) developed by the Ballast Water Working Group, and the recommendation made by the Sub-Committee on Flag State Implementation at its fourteenth session,

1. ADOPTS the Guidelines for ballast water reception facilities (G5) as set out in the Annex to this resolution;
2. INVITES Governments to apply these Guidelines as soon as possible, or when the Convention becomes applicable to them; and
3. AGREES to keep these Guidelines under review.

## ANNEX

### **GUIDELINES FOR BALLAST WATER RECEPTION FACILITIES (G5)**

#### **1 INTRODUCTION**

##### **Purpose**

1.1 The purpose of these guidelines is to provide guidance for the provision of facilities for the reception of ballast water as referred to in Regulation B-3.6 of the Convention. These guidelines are not intended to require that a Party shall provide such facilities. The guidance is also intended to encourage a worldwide uniform interface between such facilities and the ships without prescribing dedicated shoreside reception plants.

##### **Application**

1.2 These guidelines apply to ballast water reception facilities referred to in the International Convention for the Control and Management of Ships' Ballast Water and Sediments (the Convention), Regulation B-3.6.

1.3 These guidelines do not apply to reception facilities for sediment referred to in Article 5 and Regulation B-5 of the Convention.

#### **2 DEFINITIONS**

2.1 For the purposes of these guidelines, the definitions in Article 1 and Regulation A-1 of the Convention apply.

#### **3 GENERAL REQUIREMENTS FOR BALLAST WATER RECEPTION FACILITIES**

3.1 A ballast water reception facility should be capable of receiving ballast water from ships so as not to create a risk to the environment, human health, property and resources arising from the release to the environment of Harmful Aquatic Organisms and Pathogens. A facility should provide pipelines, manifolds, reducers, equipment and other resources to enable, as far as practicable, all ships wishing to discharge ballast water in a port to use the facility. The facility should provide adequate equipment for mooring ships using the facility and when applicable safe anchorage.

3.2 Each Party shall report to the Organization and, where appropriate, make available to other Parties, information on the availability and location of any reception facilities for the environmentally safe disposal of ballast water.

#### **4 PROVISION OF BALLAST WATER RECEPTION FACILITIES**

4.1 When considering the requirements of these facilities many factors will have to be taken into account, these should include but not be limited to:

- .1 regional, national and local legislation which will affect the facility and related to the items below;
- .2 site selection;
- .3 ship type and size that will use the facility;
- .4 ship configurations;
- .5 mooring requirements;
- .6 handling of ballast water;
- .7 sampling, testing and analysis of ballast water;
- .8 storage and of conditions of ballast water;
- .9 environmental benefits and costs;
- .10 proximity of available sites to local ports;
- .11 effect on the environment in construction and operation of the facility;
- .12 training of facility staff;
- .13 human health;
- .14 safety;
- .15 maintenance;
- .16 operational limitations;
- .17 waterway access, approaches and traffic management; and
- .18 the amount of ballast water likely to be received.

## **5 TREATMENT AND DISPOSAL OF RECEIVED BALLAST**

5.1 Disposal of ballast water from a reception facility should not create a risk to the environment, human health, property and resources arising from the release or transfer to the environment of Harmful Aquatic Organisms and Pathogens.

5.2 Treatment methods applied to the ballast water should not produce effects that may create a risk to the environment, human health, property and resources.

5.3 Where ballast water is disposed into the aquatic environment it should at least meet the ballast water performance standard specified in Regulation D-2 of the Convention. Disposal to other environments should be to a standard acceptable to the Port State. Such a standard should not create a risk to the environment, human health, property and resources arising from the release or transfer to the environment of Harmful Aquatic Organisms and Pathogens.

## **6 SUSPENDED MATTER**

6.1 Ballast water discharged from a ship should be accepted by the ballast water reception facility including its suspended matter.

## **7 CAPABILITIES OF A RECEPTION FACILITY**

7.1 Details of the capabilities and any capacity limitations of a treatment facility should be made available to the ships that intend to use the facility.

7.2 The details made available to ships should include but not be limited to:

- .1 maximum volumetric capacity of ballast water;
- .2 maximum volume of ballast water that can be handled at any one time;

- .3 maximum transfer rates of ballast water (cubic metres per hour);
- .4 hours of operation;
- .5 ports, berths, areas where access to the facility is available;
- .6 ship-to-shore pipeline connection details (pipeline size and reducers available);
- .7 if ship or shore crew are required for duties such as to connect or disconnect hoses;
- .8 contact details for the facility;
- .9 how to request use of the facility including any notice period and what information is required from the ship;
- .10 all applicable fees; and
- .11 other relevant information.

7.4 The facility should provide ship to shore connections that are compatible with a recognized standard such as those in the Oil Companies International Marine Forum (OCIMF) "Recommendations for Oil Tankers Manifolds and Associated Equipment". It is recognized that this standard was originally produced for oil tankers however the general principles in this standard can be applied to connections for ballast transfer on other ship types in particular the sections related to flanges and connection methods.

## **8 TRAINING**

8.1 Personnel in charge of and those employed in the provision of a ballast water reception facility including the treatment and disposal of ballast water should have received adequate instruction. Frequent training should include but not be limited to:

- .1 the purpose and principles of the Convention;
- .2 the risks to the environment and human health;
- .3 risk associated with the handling of ballast water including both general safety and human health risks;
- .4 safety;
- .5 adequate knowledge of the equipment involved;
- .6 a sufficient understanding of ships using the facility, and any operational constraints;
- .7 the ship/port communication interface; and
- .8 an understanding of local disposal controls.

8.2 The training should be organized by the manager or the operator of the reception facility and delivered by suitably qualified professionals.

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