

Subject

IMO Resolution MEPC. 107(49)  
“Revised Guidelines and Specifications for Pollution  
Prevention Equipment for Machinery Space Bilges of  
Ships”

# **ClassNK**

## ***Technical Information***

No. TEC-0613

Date 15 December 2004

To whom it may concern

Resolution MEPC. 107(49) “Revised Guidelines and Specifications for Pollution Prevention Equipment for Machinery Space Bilges of Ships”, which supersedes the recommendations contained in resolution MEPC. 60(33) was adopted at the 49th session of Marine Environment Protection Committee (MEPC. 49) on 18 July 2003 and will implement from 1 January 2005.

This technical information provides the outline of Resolution MEPC. 107(49) on the pollution prevention equipment for machinery space bilges (bilge separators and bilge alarms).

### 1. Application

In the resolution MEPC. 107(49), the application of these Guidelines is specified as follows:

#### 1.3 Applicability

1.3.1 These Guidelines and Specifications apply:

- .1 to installations fitted to ships, the keel of which are laid or which are at a similar stage of construction on or after 1 January 2005; and
- .2 to new installations fitted on or after 1 January 2005 to ships, the keel of which were laid or which were at a similar stage construction before 1 January 2005 in so far as is reasonable and practicable.

As informed previously by ClassNK Technical Information No. TEC-0608 issued on 22 November 2004, the following interpretation on the implementation date of the revised Guidelines was agreed at the 52nd session of the Marine Environment Protection Committee (MEPC. 52) held October 2004. (MEPC/Circ. 420)

Following a proposal for clarification on the applicability of the revised Guidelines, MEPC. 52 (October 2004) agreed to the following interpretation of paragraphs 1.3.1.1 and 1.3.1.2 of the revised Guidelines:

- .1 under paragraph 1.3.1.1 of the revised Guidelines, installations fitted on or after 1 January 2005 to ships whose keels were laid before that date, NEED NOT meet the revised Guidelines; and
- .2 under paragraph 1.3.1.2 of the revised Guidelines, “new” installations should be interpreted as “replacement” installations and fitted should be interpreted as “ordered” on or after 1 January 2005, to ships whose keels were laid before 1 January 2005.

According to this interpretation, the revised Guideline applies:

(To be continued)

#### NOTES:

- ClassNK Technical Information is provided only for the purpose of supplying current information to its readers.
- ClassNK, its officers, employees and agents or sub-contractors do not warrant the accuracy of the information contained herein and are not liable for any loss, damage or expense sustained whatsoever by any person caused by use of or reliance on this information.
- Back numbers are available on ClassNK Internet Homepage (URL: [www.classnk.or.jp](http://www.classnk.or.jp)).

- (1) to installations fitted to ships constructed (keel-lay basis) on or after 1 January 2005; and
- (2) to installations for replacement ordered on or after 1 January 2005 to ships constructed (keel-lay basis) before 1 January 2005 in so far as is reasonable and practicable.

ClassNK will inform, if any Administrations have a different interpretation on the application from the above.

## 2. The outline of major revisions on the Guideline

### (1) The 15ppm Bilge Separator

- (i) The feed to emulsified bilge water should not result in the discharge overboard of any mixture containing more than 15ppm of oil. (4. 1. 4) (Numbers in bracket show the paragraph of the Guideline.)
- (ii) Fail-safe arrangements to avoid any discharge in case of malfunction should be provided. (4. 1. 3)

### (2) The 15ppm Bilge Alarm

- (i) The ppm display should not be affected by emulsions and/or the type of oil. (4. 2. 5)
- (ii) Response time (4. 2. 6)  
The response time of the 15ppm Bilge Alarm should not exceed 5 seconds (20 seconds by MEPC. 60(33)).
- (iii) Recording device (4. 2. 9)  
The 15ppm Bilge Alarm should record date, time and alarm status, and operating status of the 15ppm Bilge Separator. The recording device should also store data for at least eighteen months and should be able to display or print a protocol for official inspections as required.
- (iv) Avoidance of willful manipulation of 15ppm Bilge Alarms (4. 2. 10)
  - (a) every access of the 15ppm Bilge Alarm beyond the essential maintenance requires the breaking of a seal; and
  - (b) the 15ppm Bilge Alarm should be so constructed that the alarm is always activated whenever clean water is used for cleaning or zeroing purposes.

### (3) Relevant piping arrangements

- (i) Automatic stopping device (3. 6) (Refer to #1 in Fig. 1)  
The automatic stopping device should consist of a valve arrangement installed in the effluent outlet line of 15ppm bilge separator which automatically diverts the effluent mixture from being discharge overboard back to the ship's bilges or bilge tank when the oil content of the effluent exceeds 15ppm.  
The means by stopping of bilge pump will not permitted.
- (ii) Re-circulating facilities (6. 1. 1) (Refer to #2 in Fig. 1)  
Re-circulating facilities should be provided, after and adjacent to the overboard outlet of the stopping device to enable the 15ppm Bilge Separator system, including the 15ppm Bilge Alarm and the automatic stopping device, to be tested with the overboard discharge closed.

(To be continued)

## (iii) Capacity of the supply pump (6. 1. 2)

The capacity of the supply pump should not exceed 110% (150% by MEPC. 60(33)) of the rated capacity of the 15ppm Bilge Separator with size of pump and motor to be stated on the Certificate of Type Approval.

## (iv) Overall response time (6. 2. 1)

The layout of the installation should be arranged so that the overall response time (including the response time of the 15ppm Bilge Alarm) between an effluent discharge from the 15ppm Bilge Separator exceeding 15ppm, and the operation of the Automatic Stopping Device preventing overboard discharge, should be as short as possible and in any case not more than 20 seconds (40 seconds by MEPC. 60(33)).

## (v) Sampling point (6. 1. 1) (Refer to #3 in Fig. 1)

For future inspection purposes on board ship, a sampling point should be provided in a vertical section of the water effluent piping (from the center of pipe) as close as is practicable to the 15ppm Bilge Separator outlet.

## (vi) The arrangement for the extraction of samples to the 15ppm Bilge Alarm (6. 2. 2) (Refer to #4 in Fig. 1)

The arrangement on board ship for the extraction of samples from the 15ppm Bilge Separator discharge line to the 15ppm Bilge Alarm should give a truly representative sample of the effluent with an adequate pressure and flow. (To be taken from the center of a vertical section of the water effluent piping.)

Above (v) and (vi) are not revised requirements by resolution MEPC. 107(49). They will be introduced to the ClassNK's Rules as a specific requirements, taking the opportunity of implementation of the resolution MEPC. 107(49).

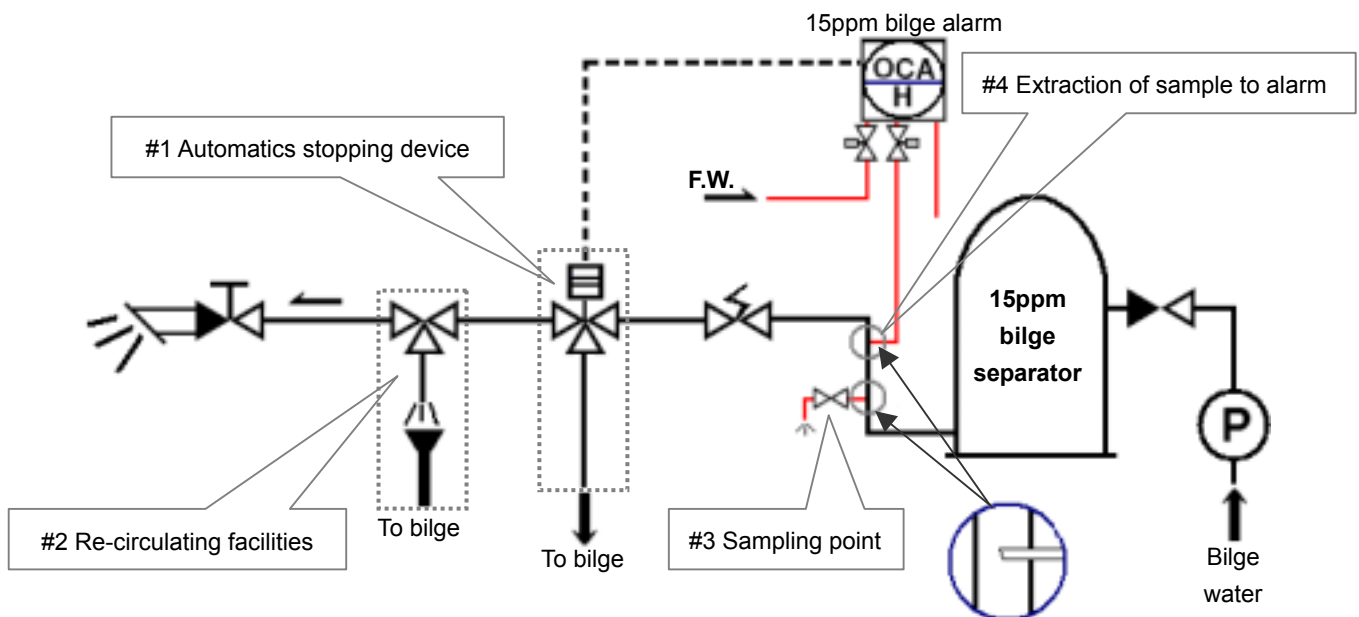


Fig. 1 - Example of piping arrangements

(To be continued)

(4) Others

(i) Operating and Maintenance manuals (6. 1. 4 and 6. 2. 3)

A vessel fitted with a 15ppm Bilge Separator and a 15ppm Bilge Alarm should, at all times, have on board a copy of the Operating and Maintenance manuals.

(ii) Calibration of 15ppm Bilge Alarms (4. 2. 11)

The accuracy of the 15ppm Bilge Alarms should be checked at IOPP Certificate renewal surveys according to the manufacturers instructions. Alternatively the unit may be replaced by a calibrated 15ppm Bilge Alarm. The calibration certificate for the 15ppm Bilge Alarm, certifying date of last calibration check, should be retained onboard for inspection purposes. The accuracy checks can only be done by the manufacturer or persons authorized by the manufacturer.

The amended Rules for Marine Pollution Prevention Systems are available from the following website:

[http://www.classnk.or.jp/hp/Rules\\_Guidance/amendments/e-Amendments/04.11.15/MarinePollution\\_E.pdf](http://www.classnk.or.jp/hp/Rules_Guidance/amendments/e-Amendments/04.11.15/MarinePollution_E.pdf)

For any questions about the above, please contact:

NIPPON KAIJI KYOKAI (ClassNK)

Machinery Department, Administration Centre, Head Office

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

Tel.: +81-3-5226-2022

Fax: +81-3-5226-2024

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