

Subject

Annex IV of MARPOL 73/78 (Regulations for the prevention of pollution by sewage from ships)

ClassNK

Technical Information

No. TEC-0545

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To whom it may concern

As informed previously by ClassNK Technical Information No. TEC-0494 issued on 15 December 2002, Annex IV of MARPOL 73/78 (Regulations for the prevention of pollution by sewage from ships) would become effective on 27 September 2003.

This technical information provides the outline of Annex IV of MARPOL 73/78 and the details for the implementation at the present.

1. The Outline of Annex IV of MARPOL 73/78

Annex IV of MARPOL 73/78 was adopted on 17 February 1978 and had not met the conditions of entry into force for many years. To assist the entry into force of Annex IV of MARPOL 73/78, while maintaining the same level of protection of the marine environment, the text of the revised Annex IV of MARPOL 73/78 was approved by the 44th session of Marine Environment Protection Committee (MEPC44, March 1990), and the MEPC Resolution (Res. MEPC.88(44)) to request the implementation of the revised Annex IV of MARPOL 73/78 immediately after entry into force of the existing Annex IV of MARPOL 73/78 was adopted at that session. At MEPC49 (July 2003), the Circular to request the port States not to apply, for the purpose of port State control, the requirements of the original Annex IV was approved and circulated.

ClassNK will apply the revised Annex IV in accordance with the above resolution immediately after entry into force of the existing Annex IV unless otherwise instructed by Flag Administrations.

The revised Annex IV is expected to be adopted by MEPC51 (March 2004) and would become effective 16 months after the adoption (July 2005).

The following outline is based on the provisions of the revised Annex IV:

(1) Terminology (Reg.1)

(i) "New ship" means a ship:

- (a) for which the building contract is placed, or in the absence of a building contract, the keel of which is laid, or which is at a similar stage of construction, on or after 27 September 2003; or
- (b) the delivery of which is on or after 27 September 2006.

(To be continued)

NOTES:

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- (ii) "Existing ship" means a ship which is not a new ship.
- (iii) "Sewage" means:
 - (a) drainage and other wastes from any form of toilets and urinals;
 - (b) drainage from medical premises (dispensary, sick bay, etc.) via wash basins, wash tubs and scuppers located in such premises;
 - (c) drainage from spaces containing living animals; or
 - (d) other waste waters when mixed with the drainages defined above.
- (iv) "Holding tank" means a tank used for the collection and storage of sewage.

(2) Application (Reg.2)

The provisions of Annex IV of MARPOL shall apply to the following ships engaged in international voyages:

- (i) new ships of 400 tons gross tonnage and above; and
- (ii) new ships of less than 400 tons gross tonnage which are certified to carry more than 15 persons; and
- (iii) existing ships of 400 tons gross tonnage and above, 5 years after the date of entry into force of this Annex; and
- (iv) existing ships of less than 400 tons gross tonnage which are certified to carry more than 15 persons, 5 years after the date of entry into force of this Annex.

(3) Equipment for the prevention of pollution by sewage (Reg.9, 10)

The following equipment is required by the provisions of Annex IV of MARPOL 73/78:

- (i) One of the following sewage systems:
 - (a) a sewage treatment plant which type approved by the Administration in compliance with Res.MEPC.2(VI), or
(For existing ships, national specifications are acceptable.)
 - (b) a sewage comminuting and disinfecting system approved by the Administration, such system shall be fitted with facilities to the satisfaction to the Administration for the temporary storage of sewage when the ship is less than 3 nautical miles from the nearest land, or
(So for, no sewage comminuting and disinfecting system has been developed.)
 - (c) a holding tank of the capacity(*) to the satisfaction of the Administration for the retention of all sewage, having regard to the operation of the ship, the number of persons on board and other relevant factors. The holding tank is to be constructed to the satisfaction of the Administration and to have a means to indicate visually the amount of its contents.
(*)The capacity of the holding tank is to comply with the following formula:
(The Administrations may have their own requirement.)

(To be continued)

$$Cr \geq A N_p Da$$

Cr: capacity of the holding tank (m³)

A: 0.06 (m³/person/day)

Value of A may reduce according to the flushing system etc.

N_p: the total number of persons on board

Da: the maximum number of days operating in areas where the discharge of sewage which is not comminuted or disinfected into the sea is prohibited (minimum 1 day)

- (ii) a pipeline to discharge sewage to a reception facility, and
- (iii) a standard discharge connection fitted for the pipeline specified in (ii).

(4) Discharge of sewage (Reg.11)

The discharge of sewage into the sea is prohibited, except when:

- (i) the discharge of comminuted and disinfected sewage at distance of more than 3 nautical miles from the nearest land
- (ii) the discharge of sewage which is not comminuted and disinfected at distance of more than 12 nautical miles from the nearest land, provided that in any case, the sewage that has been stored in holding tanks shall not be discharged instantaneously but at a moderate rate when ship is en route and proceeding at not less than 4 knots; or
- (iii) the discharge of sewage in operation an approved sewage treatment plant, and the effluent shall not produce visible floating solids nor cause discoloration of the surrounding water.

2. Status of the ratification and authorization given to ClassNK

(1) Status of Ratification of Flag Administrations

The latest information is available from the following web site of IMO:

http://www.imo.org/includes/blastDataOnly.asp/data_id%3D7735/status.xlsJuly2003.xls

(2) Flag Authorizations which have delegated the authorization to ClassNK

(i) Flag Administrations which have ratified Annex IV of MARPOL 73/78

(ClassNK is to carry out surveys and issue the Statutory Certificate on behalf of the Administrations.)

Antigua and Barbuda, Barbados, Belize, Bolivia, Brazil, Cambodia, Cayman Islands^{#1)}, Denmark, Equatorial Guinea, Georgia, Greece, India^{#1)#2)}, Luxembourg, Marshall Is., Mauritius, Pakistan, Panama, St. Vincent and the Grenadines

#1) The Statutory Certificate is issued by the Administration.

#2) The authorization is limited to the survey to be carried out outside India.

(To be continued)

- (ii) Flag Administrations which have not ratified Annex IV of MARPOL 73/78
(ClassNK is to carry out surveys and issue the Document of Compliance on behalf of the Administrations.)

Australia, Bahamas, Bahrain, Brunei, Cape Verde, Cyprus, Dominica, Ghana, Hong Kong, Jordan, Liberia, Malta, Netherlands, Seychelles, Switzerland, Turkey, Vanuatu

- (3) Flag Administrations which have stated there will be no legal basis for the delegation
(ClassNK is to carry out surveys and to issue a Statement.)

Iceland, Viet Nam

3. Application to issue certificate

- (1) Ships under construction

Please send “Application for Classification and Statutory Services during Construction (Form 1A)” to service sites upon ticking in the box of “Sewage Pollution Prevention Certificate” of “International Convention Certificates” of “Issuance of Certificates” on Form 1A-ATT1.

For the ships which are under construction and will be delivered on and after 27th September 2003, ClassNK will issue the statutory certificate. Please request service sites accordingly.

- (2) Ships in service

Please send “Application for Surveys and Issue of Certificate (Form 2A)” to service sites upon ticking in the box of “Initial” of “Marine Pollution Prevention Installation [MARPOL IV]” in “1.(2) Survey for maintenance of Installation Registration” and ticking in the left box of “SPP certificate” in “3. Certificate to be issued”.

The plans should be submitted to the ClassNK Machinery Department separately prior to the application for surveys.

The latest application form is available from the following web site:

http://www.classnk.or.jp/hp/download/dl_appli.asp

4. Survey

- (1) Ships under construction

- (i) Plans to submit

Please submit 3 sets of the following documents to the ClassNK Machinery Department.

- (a) Plans, documents and particulars relevant to the equipment for the prevention of pollution by sewage from ships (including total capacity of holding tank, total capacity, manufacturer/type and the copy of type approval certificates by the Administration of the sewage treatment plant and the sewage comminuting and disinfecting system)

(To be continued)

- (b) Sewage piping diagrams (including the standard shore connection, arrangement of pipes, valves and their materials)
 - (ii) Survey
 - (a) General inspection of sewage system in accordance with the approved drawings
 - (b) General inspection of discharge pipelines and standard discharge connection in accordance with the approved drawings
 - (c) Operation test of equipment and associated pump
 - (d) Inspection of sewage system
 - Inspection of a sewage treatment plant / a sewage comminuting and disinfecting system
 - Visual inspection
 - Operation tests (including the safety devices and alarms, if fitted)
 - Inspection of holding tank
 - Visual inspection
 - Open-up inspection
 - Hydrostatic test with a head of water to the top of tank
- (2) Ships in service
- (i) Plans to submit

Prior to the survey, Please submit 3 sets of the documents specified in above 4.(1)(i) to the ClassNK Machinery Department .
 - (ii) Survey
 - (a) General inspection of sewage system in accordance with the approved drawings
 - (b) General inspection of discharge pipelines and standard discharge connection in accordance with the approved drawings
 - (c) Operation test of equipment and associated pump
 - (d) Inspection on the wear of the associated pumps and piping arrangements
 - (e) Inspection of sewage system
 - Inspection of a sewage treatment
 - Visual inspection
 - Operation tests (including the safety devices and alarms, if fitted)
 - Open-up inspection for essential part
 - Verification whether the disinfectants not to meet the specification required by the plant manufacturer are not infused by checking maintenance records of the plant
 - Verification of the effluent not to contain any visible solids
 - Inspection a sewage comminuting and disinfecting system
 - Visual inspection
 - Operation tests (including the safety devices and alarms, if fitted)
 - Open-up inspection for essential part

(To be continued)

- Inspection of holding tank

- Visual inspection
- Open-up inspection
- Hydrostatic test with a head of water to the top of tank

Open-up inspection and hydrostatic test of the tank may be dispensed with, provided that the Surveyor is satisfied with the condition of the tank by other means.

5. Procedures to issue Statutory Certificate when the ship has Statement of Compliance
ClassNK has issued Statement of Compliance with provisions of Annex IV on voluntary basis. The procedures to replace the Statement of Compliance with the Statutory Certificate are as follows:

(1) When to replace

In general, Statutory Certificate will be issued at the time of the expiry of the Statement subject to the Renewal Survey

Before the expiry of the Statement, Statutory Certificate may be issued at the request of the owner subject to the survey. In this case, the expire date of the certificate remain same as the expiry date of the present Statement of Compliance.

(2) Application

Please submit an application as specified in above 3.(2) together with the copy of the Statement of Compliance to service sites.

(3) Survey

Survey specified in above 4.(2)(ii)

(4) “Note” in Statement of Compliance

In case where the ship has not complied with the provisions of Annex IV or compliance with the provisions could not be confirmed, the descriptions “subject to the note on reverse” has been added at the end of (2) of the Statement and the following “Note” has been specified on the reverse side.

“Note: The ship, which applies to the Regulation 2 of ANNEX IV is to comply with the following after the date of entry into force of ANNEX IV;”

- (i) In case where a sewage treatment plant does not meet standards and the test methods developed by the Organization.

“A sewage treatment plant shall meet operational requirements based on standards and the test methods developed by the Organization.”

- (ii) In case where the capacity of a holding tank is not sufficient to the satisfaction of the Administration.

“The capacity of a holding tank shall be to the satisfaction of the Administration.”

(To be continued)

(iii) In case where a pipeline leading to the exterior convenient for the discharge of sewage to a reception facility and/or a standard shore connection are not fitted.

“A pipeline leading to the exterior convenient for the discharge of sewage to a reception facility and a standard shore connection are to comply with the requirements of Regulation 3(1)(a)(iv) and Regulation 11.”

To clear up the “Note”, the following measures are to be taken: Please submit the relevant document or the modification plans to the ClassNK Machinery Department, prior to the survey:

Case (i)

Sewage treatment plant should be replaced with approved one. The particular of new plant should be informed.

For existing ships, national specifications are acceptable by the revised Annex IV. In case where the plant complies with any national specifications, acceptance of such plant will be considered in each case.

Case (ii)

The capacity of holding tank should comply with the formula specified in 1.3(1)(c) or the value required by the Administration.

If the capacity is not sufficient, the capacity of tank should be upgraded.

Case (iii)

Modifications to comply with the requirements should be made.

For any questions about the above, please contact:

NIPPON KAIJI KYOKAI (ClassNK)
Machinery Department, Administration Center, Head Office
Address: 4-7 Kioi-cho, Chiyoda-ku, Tokyo 102-8567, Japan
Tel.: +81-3-5226-2022/ 2023
Fax: +81-3-5226-2024
E-mail: mcd@classnk.or.jp