Subject :

Approaching Deadline for Installation of GMDSS Radio Installations

NKTECHNICAL INFORMATION

No. : 295

Date : 25th December 1998

To shipowners and shipbuilders concerned

Under the 1988 Amendments to SOLAS Convention relating to GMDSS, ships constructed before 1 February 1995 should fully be fitted with GMDSS radio installations by 1 February 1999.

Now that about one month is being left until this date, the record of ClassNK shows that there are not a few ships for which necessary arrangements (including the review of the relevant drawings/documents and a safety radio survey, by ClassNK) have not been made. According to the ClassNK's estimate based on the record, it is also assumed that there may be a case where ships will be fitted with no GMDSS radio installations by this date and may face certain difficulties in ship operation.

Should there be a case where the review of the relevant drawings/documents, or the safety radio survey, by ClassNK have not yet been completed, the necessary actions should urgently be taken. If no review of the drawings/documents have been completed, the drawings/documents as listed in the Attachment of Technical Information No. 249 should be submitted to ClassNK. For reference, a copy of the Attachment is attached hereto.

The End

Attachment: List of Drawings and Documents to be Submitted

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Attachment

List of Drawings and Documents to be Submitted for Examination/Approval

1. Specifications

A list of specifications should include the following:-

(1) Ship's flag, gross tons and date of keel laid;

(2) Ship's navigating sea area planned;
Either A1, A1+A2, A1+A2+A3 or A1+A2+A3+A4

(3) Maintenance methods selected;
Maintenance methods required vary according, amongst others, to the ship's navigating sea areas. In case where the navigating sea area is A1+A2+A3, it should be a combination of at least two methods such as "duplication of equipment", "shore-based maintenance" or "at-sea electronic maintenance".

(4) Availability of emergency sources of power for GMDSS radio equipment;

(5) Periods during which GMDSS radio equipment can be supplied from reserve sources of energy;
The required period varies from 1 hour to 6 hours, depending upon whether emergency sources of energy are available.

2. List of Equipment

A list should include kinds, types, number and manufacturers names of GMDSS radio equipment to be installed, and names of governments/organizations who have approved for the equipment

3. Arrangement of Radio Equipment

Drawings should indicate the arrangement of GMDSS radio equipment installed at the position from which the ship is normally navigated (normally, the ship's navigating bridge) or details of GMDSS communication functions available at the position. It should also indicate the locations of lighting for controllers of GMDSS radio equipment, to which the power is supplied from the emergency/reserve sources of energy.

4. Connecting Diagram of Radio Equipment

5. Arrangement of Antennas

Drawings should indicate the arrangement of all antennas viewed from the front, side and plan if possible. When an INMARSAT SES is installed as a compulsory unit for GMDSS radio equipment and part of the ship's hull structure becomes an obstacle to the line of sight between the INMARSAT antenna and the satellite, a drawing of blind sector should be included.

6. Calculation of Battery Capacity for Reserve Source of Energy

It should be clearly indicated to which GMDSS radio equipment power is supplied from the reserve source of energy and how. For determination of the required battery capacity, reference should be made to 4.9 of the NK Guidance for Radio Installations*.

*: *4.9 Sources of Energy*

4.9.3 Reserve Sources of Energy

1 The capacity of the reserve source of energy is to be determined in accordance with the following formula with specified load conditions to the required radio installations fed from the reserve sources.

$$C = K \times I$$

where C: Required capacity (AH)

K: Capacity conversion factor (H)

(corresponding to ambient temperature of +5℃ and end voltage of 1.8V)

I: Total consumption current (A)

2 The capacity conversion factor K is to be determined in accordance with the following:

(1) For lead accumulator batteries of a clud or pasted vent type, K=3.2 in the case of a 1 hour discharging rate and K=7.2 in the case of a 6 hour discharging rates, respectively. For lead accumulator batteries of a sealed type, K=2.0 and K=7.1 in the case of 1 hour and 6 hour discharging rates, respectively.

(2) For lead accumulator batteries of other types and alkali accumulator batteries, K may be determined by referring to the value recommended by the manufacturer.