Subject:

Requirement For Existing Chemical Tankers Under year 2000 Amendments To IBC/BCH Code

ClassNK

Technical Information

No. TEC-0461

Date 25 June 2002

To whom it may concern

2000 Amendments to the IBC/BCH Code will become effective on 1 July 2002. These amendments apply to new chemical tankers as well as existing chemical tankers. The amendments are as follows:

1) Cargo Hoses (IBC Code 5.7/BCH Code Chapter II 2.12.4)
The requirement for prototype testing of cargo hoses newly installed on board ships has been added.

2) Tank Venting System (IBC Code 8.3/BCH Code Chapter II 2.14)
For when the controlled tank venting systems fail, secondary means for preventing over/under pressure in the cargo tank should be provided. Alternatively, pressure sensors may be provided in each cargo tank. For existing chemical tankers, the compliance should be completed by the date of the first scheduled dry docking after 1 July 2002, but not later than 1 July 2005.

Because the requirement for prototype test of cargo hose has been added, cargo hoses newly installed on board ships after 1 July 2002 are required to obtain new type approval according to the new requirements.

For all existing chemical tankers, to which the amendments of the Tank Venting System apply, ClassNK will carry out plan reviews in order to check the compliance with the amendments before on-board survey. In this regard, you are requested to prepare the related drawings and send them to ClassNK for approval. Following the plan approval within Head Office, an on-board survey will be carried out to verify the ship's compliance according to the approved plan.
For Oil/Chemical Tankers to which the requirements of the tank venting system for oil tankers in 1996 Amendments of SOLAS 74 also applies, ClassNK will re-confirm the approved drawings of those vessels, so please advise if this is required.

(To be continued)

For any questions about the above, please contact:

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Attachments: A: Prototype-test of cargo hoses for existing chemical tankers
B: Controlled tank venting system for existing chemical tankers

Attachment A to
ClassNK Technical Information No. TEC-0461
Prototype-test of cargo hoses for existing chemical tankers

1. Application

Cargo hoses newly installed on board ships to which the IBC Code/BCH Code applies, on or after 1 July 2002

2. Regulation

For cargo hoses installed on board ships on or after 1 July 2002, each new type of cargo hose, complete with end-fittings, should be prototype-tested at a normal ambient temperature with 200 pressure cycles from zero to at least twice the specified maximum working pressure. After this cycle pressure test has been carried out, the prototype test should demonstrate a bursting pressure of at least 5 times its specified maximum working pressure at the extreme service temperature. Hoses used for prototype testing should not be used for cargo service. Thereafter, before being placed in service, each new length of cargo hose produced should be hydrostatically tested at ambient temperature to a pressure not less than 1.5 times its specified maximum working pressure but not more than two-fifths of its bursting pressure. The hoses should be stencilled or otherwise marked with the date of testing, its specified maximum working pressure and, if used in services other than the ambient temperature service, its maximum and minimum service temperature, as applicable. The specified maximum working pressure should not be less than 1MPa gauge.

3. Instruction

Even if cargo hoses were prototype-tested according to the previous requirement of IBC/BCH Code and approved by ClassNK, Cargo hoses newly installed on board ships after 1 July 2002 should be prototype-tested according to this amendment.

Should you have any questions regarding this prototype-test, please feel free to contact the Material and Equipment Department, Administration Center, Head Office (Tel: +81-3-5226-2020, Fax: +81-3-5226-2057).

Attachment B to
ClassNK Technical Information No. TEC-0461

Controlled tank venting system for existing chemical tankers

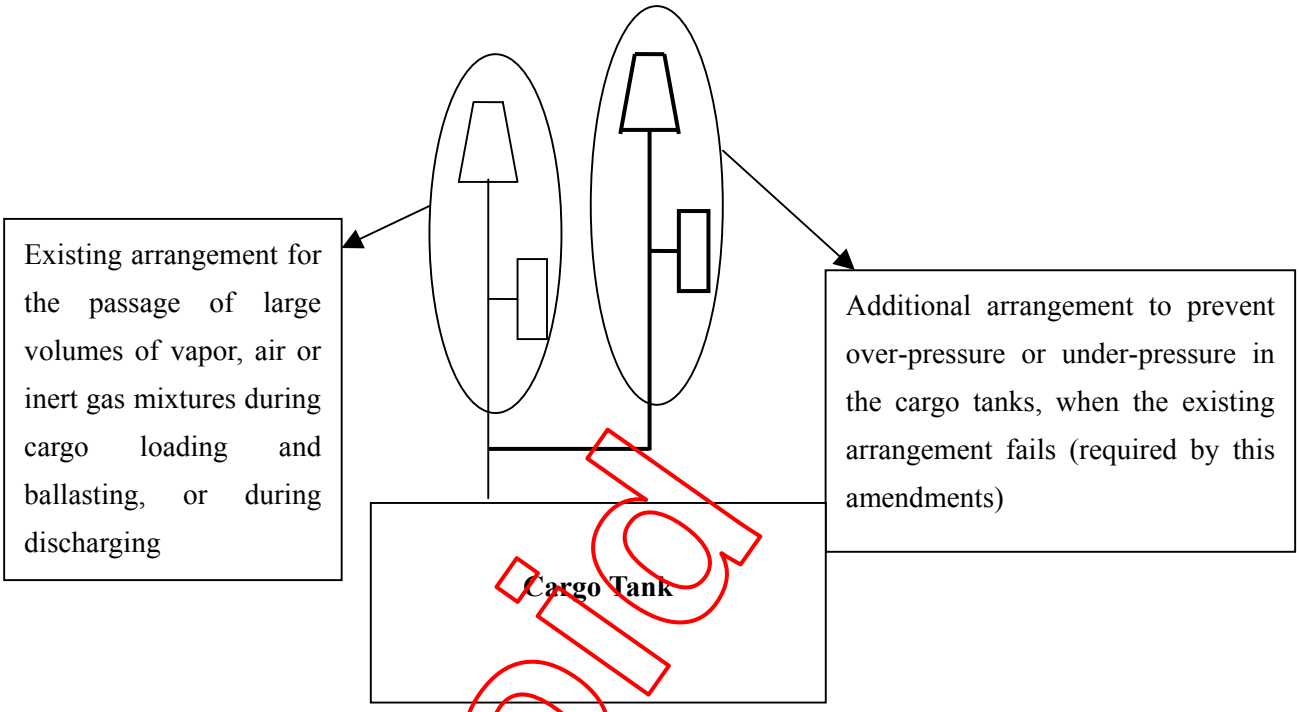
1. Application

These amendments apply to existing chemical tankers to which the IBC/BCH Code applies. In the case of existing chemical tankers of less than 500 gross tonnage, each ship will be dealt with individually.

2. Regulations and guidance relating to the amendments

Regulation	Guidance
1. In cases where the venting arrangements for the passage of large volumes of vapor, air or inert gas mixtures during cargo loading and ballasting, or during discharging fail, the arrangements prescribed in (a) and (b) below should be provided in order to prevent over-pressure or under-pressure in the cargo tanks.	1. Mal-function or mis-operation of venting pipes as well as shut-off valves to isolate each cargo tank from a common line need not be considered. The shut-off valve to isolate each cargo tank from a common line should be provided with a locking device and clear visual indication of operational status of the valve.
(a) Means of allowing full flow relief of vapor, air or inert gas mixtures during cargo loading and ballasting or during discharging are required.	1. The following means may be accepted. 1) Additional arrangement allowing the passage of large volumes of vapor, air or inert gas mixtures during cargo loading and ballasting, or discharging. 2) Rupture disk 3) PV breaker 2. Example acceptable venting systems are shown in Fig.1. Other proposed arrangements will be reviewed on a case by case basis.

(b) Pressure monitoring systems for the cargo tanks must comply with the following 1) to 3). 1) To be type-approved by ClassNK. 2) Pressure sensors should be fitted in each tank. 3) Monitoring equipment complying with the following i) and ii) should be provided in the ship's cargo control room or the position from which cargo operations are normally carried out: i) Pressure indicator for each cargo tank ii) Visual and audible alarm to be activated by detection of over-pressure or under-pressure conditions within a tank.	1. Alarm-setting pressure for over-pressure condition should not in principle be over the test pressure of the cargo tank. 2. Alarm-setting pressure for under-pressure condition should not in principle be under –0.007Mpa. 3. No shut-off valves or closing devices should in principle be fitted between the cargo tank and the pressure sensor. If a shut-off valve has to be fitted, the valve should be provided with a locking device and clear visual indicator. 4. Pressure sensors should be so arranged and constructed as to avoid the clinging of cargo and should be easy to calibrate and maintain. 5. When a change of alarm-setting pressure is needed depending on cargo or loading, procedures for the change should be prescribed in the operating manual of the system.
1. 1. If cargo loading and ballasting or discharging of a cargo tank or cargo tank group, which is isolated from a common venting system is intended, that cargo tank or cargo tank group should be fitted with an arrangement for over-pressure or under pressure protection as required in 1 above.	



3. Submission of drawings

1) Drawings to be submitted
Please submit three copies of each of the following:

i) Piping diagram of cargo vent line (with materials, sizes, kinds, design pressures, etc. of pipes, valves, etc.)
ii) In the case of providing a pressure monitoring system:
   a) General arrangement of the system
   b) Detail of the system
   c) Operation manual of the system

2) Department to which you send the drawings
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