

Subject

The devices to prevent the passage of flame into cargo tanks in chemical and oil/chemical tankers

# **ClassNK**

## **Technical Information**

No. TEC-0906  
Date 13 June 2012

To whom it may concern

The design, testing and location of devices(flame screen, flame arrester, high velocity device etc.) to prevent the passage of flame into cargo tanks in chemical and oil/chemical tankers prescribed in MSC/Circ.677 was amended to MSC/Circ.1324 as follows.

### 1. Amendment

The devices on chemical and oil/chemical tankers certified for the carriage of chemicals which are required to follow the apparatus group IIB(including no description of apparatus group) or IIC, based on the apparatus group assigned as per column i" in the table of the IBC Code, Chapter 17, should be tested with the ethylene(apparatus Group IIB) or hydrogen(apparatus Group IIC). Accordingly, it is necessary to install the suitable devices for the carried chemicals as the amendment.

### 2. Application

#### (1) New ships

The MSC/Circ.1324 is applied to the ships constructed on or after 1 January 2013.

#### (2) Existing ships

The MSC/Circ.1324 is applied to the existing ships constructed before 1 January 2013, no later than the first scheduled dry-docking carried out on or after 1 January 2013. The existing ships are required to comply with following (i) or (ii).

##### (i) Exchange the devices

In case where the devices are not tested and approved as suitable apparatus group for the carried chemicals, the devices in ships should be exchanged for the suitable devices <sup>\*1</sup>.

In case where ships exchange existing devices for the tested and approved ones, plan approval of "The revised cargo vent piping diagram (including the information about the name of manufacturer and type of newly installed devices)" and "Drawings which are necessary to revise in relation to the exchange of devices <sup>\*2</sup>" are required. We would therefore like to ask you to submit at least three copies of them to our Natural Resources and Energy Department with a application form (See Attachment 2).

(To be continued)

#### NOTES:

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- Back numbers are available on ClassNK Internet Homepage (URL: [www.classnk.or.jp](http://www.classnk.or.jp)).

If you have any question about the apparatus group of the devices, please contact to our Material and Equipment Department.(Regarding the approved devices and apparatus group etc., please refer to our web site "Products & Services" → "Approval Lists" → "Information for MSC.1/Circ.1324".

The information will be updated from time to time.)

\*1 : In case where the ships comply with either one of the following conditions, it is not required to exchange the devices.

- The existing devices are tested and approved as suitable devices(IIB(including no description of apparatus group) or IIC) for the carried chemicals.

- The ships carry the only chemicals for which "Open" is listed in column g in the table of the IBC Code, chapter 17.

\*2 : Manuals including a drawing of pressure/vacuum relief devices, flow capacity curve and pressure drop calculation (if necessary).

(Example: Vapour Emission Control System Manual, VOC Management Plan, etc.)

(ii) Issuance of the revised chemical certificate of fitness

In case where ships do not exchange the existing devices, such ships need to have the revised chemical certificate of fitness excluding chemicals which are required to follow the apparatus group IIB (including no description of apparatus group) or IIC.

For issuance of the certificate, plan approval of the revised "Chemical Operation Manual and P&A Manual" or "the addendum to Chemical Operation Manual and P&A Manual\*3" is necessary. We would therefore like to ask you to submit at least three copies of them to our Natural Resources and Energy Department with a completed application form (See Attachment 3). In addition, we may prepare the addendum to Chemical Operation Manual and P&A Manual on request. If you so request, please put remark on the application.

\*3 : The revised cargo list for Chemical Operation Manual and P&A Manual.

(The addendum manuals are to be provided on board together with the existing manuals.)

For any questions about the above, please contact:

[Inquiries on plan approval and issuance of the revised chemical certificate of fitness]

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(To be continued)

◇Department in charge until 31 March 2018

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Attachment:

1. MSC.1/Circ.1324 dated 10 June 2009
2. Application form for approval of the relevant drawings
3. Application form for issuance of the revised chemical certificate of fitness



IMO

*E*

Ref. T4/7.01

MSC.1/Circ.1324  
10 June 2009

**AMENDMENTS TO THE REVISED STANDARDS FOR THE DESIGN, TESTING AND LOCATION OF DEVICES TO PREVENT THE PASSAGE OF FLAME INTO CARGO TANKS IN TANKERS (MSC/CIRC.677, AS AMENDED BY MSC/CIRC.1009)**

1 The Maritime Safety Committee, at its eighty-sixth session (27 May to 5 June 2009), noting that the provisions in paragraphs 1.2.3 and 4.1.4 of the Revised standards for the design, testing and location of devices to prevent the passage of flame into cargo tanks in tankers (MSC/Circ.677), needed clarification to ensure that the Maximum Experimental Safe Gap (MESG) value for the medium to be used to test the device is appropriate for the product certified to be carried in the tank fitted with such a device, approved the following amendments to MSC/Circ.677:

.1 Paragraph 1.2.3 is replaced with the following:

“1.2.3 These Standards are intended for devices protecting cargo tanks containing crude oil, petroleum products and flammable chemicals. In the case of the carriage of chemicals, the test media referred to in section 3 can be used for products having an MESG of 0.9 mm and greater. However, devices for chemical tankers certified for the carriage of products with an MESG\* less than 0.9 mm should be tested with the following media based on the apparatus group assigned as per column i” of the IBC Code, chapter 17:

- .1 Apparatus Group II B – ethylene (MESG = 0.65 mm); and
- .2 Apparatus Group II C – hydrogen (MESG = 0.28 mm).

Where no apparatus group is assigned in column i”, the device should be tested in accordance with the requirements for Apparatus Group II B.”

.2 Subparagraph .4 of paragraph 4.1 is replaced with the following:

“.4 approved location for installation, including maximum or minimum length of pipe, if any, between the device and the atmosphere and the apparatus group assigned to the tested device;”.

2 Member Governments are invited to apply the amendments to the Revised standards, as amended, to ships constructed on or after 1 January 2013 and to ships constructed before 1 January 2013, no later than the first scheduled dry-docking carried out on or after 1 January 2013.

3 Member Governments are also invited to bring the above amendments to the Revised Standards to the attention of masters, ship operators, shipowners, cargo manufacturers and other parties involved in the design, construction and operation of tankers.

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\* Reference is made to IEC – Publication 79-1.

Attachement 2: Application form for approval of the relevant drawings

TO: Nippon Kaiji Kyokai  
Natural Resources and Energy Department  
(FAX:+81 3 5226 2019 E-mail: ned@classnk.or.jp)

**Application for approval of the relevant drawings  
(Cargo vent piping diagram, VCS Manual, VOC Management Plan, etc.)**

Application is hereby submitted for approval of Cargo vent piping diagram and the relevant drawings which are revised as necessary based on the exchange of devices, relating to the issuance of MSC.1/Circ.1324.

**Applicable Ships**

	Name of Ship	Class Number	IMO Number	Flag State
1				
2				
3				
4				
5				

To be continued\* / See attached sheet\*

**Submission of the drawings**

- Cargo vent piping deiagram
- Vapour Emission Cotrol System
- VOC Management Plan
- Others ( \_\_\_\_\_ )

**Applicant**

Name of Company: \_\_\_\_\_

Address : \_\_\_\_\_

Tel/Fax/E-mail : \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_

-

Name and Signature : \_\_\_\_\_  
( \_\_\_\_\_ )

The relative fee will be paid by above \*/ following company\*.

\_\_\_\_\_

\* : Delete as appropriate

TO: Nippon Kaiji Kyokai  
 Natural Resources and Energy Department  
 (FAX:+81 3 5226 2019 E-mail: ned@classnk.or.jp)

**Application for issuance of the revised chemical certificate of fitness**

Application is hereby submitted for the issuance of the revised “INTERNATIONAL CERTIFICATE OF FITNESS FOR THE CARRIAGE OF DANGEROUS CHEMICALS IN BULK”, relating to the issuance of MSC.1/Circ.1324.

**Applicable Ships**

	Name of Ship	Class Number	IMO Number	Flag State
1				
2				
3				
4				
5				

To be continued\* / See attached sheet\*

**Submission of the relevant manuals (Please check either boxes.)**

- Application is also hereby submitted for approval of “the revised Chemical Operation Manual and P&A Manual” as attached herewith for issuance of the revised certificate.
- Application is also hereby submitted for approval of “the addendum to Chemical Operation Manual and P&A Manual” as attached herewith for issuance of the revised certificate.
- \*1 Application is also hereby submitted for the preparation of “the addendum to Chemical Operation Manual and P&A Manual” by ClassNK for issuance of the revised certificate.

\*1: Additional fee is charged in this case.

**Applicant**

Name of Company: \_\_\_\_\_

Address : \_\_\_\_\_

Tel/Fax/E-mail : \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_

-

Name and Signature : \_\_\_\_\_  
 ( )

The relative fee will be paid by above \*/ following company\*.

\_\_\_\_\_

\* : Delete as appropriate