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Working Party on the Transport of Dangerous Goods

Joint Meeting of Experts on the Regulations annexed to the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN) (ADN Safety Committee)

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Item 4 (c) of the provisional agenda

Implementation of the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN): interpretation of the Regulations annexed to ADN

Rapid blocking valve

Transmitted by the Recommended ADN Classification Societies***

Introduction

1. During the August 2017 session, the Recommended ADN Classification Societies have submitted a document about the “rapid blocking valve” (ECE/TRANS/WP.15/AC.2/2017/35). “The Safety Committee recognized the lack of consistency in the terminology relating to the provisions in question and adopted the proposals to amend 3.2.3.1, 7.2.2.21, 9.3.1.21.9, 9.3.1.25.2, and 9.3.2.21.9, it being understood that for the proposed alternatives, the terms to use would be “vanne à fermeture rapide” in French and “quick closing valve” in English. The Recommended ADN Classification Societies were requested to check whether similar changes would be made in other paragraphs.”

This check is the purpose of this document.

* Distributed in German by the Central Commission for the Navigation of the Rhine under the symbol CCNR-ZKR/ADN/WP.15/AC.2/2018/16.

** In accordance with the programme of work of the Inland Transport Committee for 2017-2018 (ECE/TRANS/WP.15/237, annex V (9.3.)).

I. Check for similar changes

2. In 9.3.2.21.5 (c)

Quote

Vessels which may be delivering products required for operation of vessels shall be equipped with a transshipment facility compatible with European standard EN 12827:1999 and a rapid closing device enabling refuelling to be interrupted. It shall be possible to actuate this rapid closing device by means of an electrical signal from the overflow prevention system. The electrical circuits actuating the rapid closing device shall be secured according to the quiescent current principle or other appropriate error detection measures. The state of operation of electrical circuits which cannot be controlled using the quiescent current principle shall be capable of being easily checked.

It shall be possible to actuate the rapid closing device independently of the electrical signal. The rapid closing device shall actuate a visual and audible alarm on board.

Unquote

3. It seems that this “rapid closing device” could be something different than the “quick closing valve” mention in the proposition of amendment. So we would maintain the text of 9.3.2.21.5 (c).

4. In 9.3.3.21.5 (c)

Quote

Supply vessels and other vessels which may be delivering products required for operation shall be equipped with a transshipment facility compatible with European standard EN 12827:1999 and a rapid closing device enabling refuelling to be interrupted. It shall be possible to actuate this rapid closing device by means of an electrical signal from the overflow prevention system. The electrical circuits actuating the rapid closing device shall be secured according to the quiescent current principle or other appropriate error detection measures. The state of operation of electrical circuits which cannot be controlled using the quiescent current principle shall be capable of being easily checked.

It shall be possible to actuate the rapid closing device independently of the electrical signal. The rapid closing device shall actuate a visual and an audible alarm on board.

Unquote

5. It seems that this “rapid closing device” could be something different than the “quick closing valve” mention in the proposition of amendment. So we would maintain the text of 9.3.3.21.5 (c).

6. In 9.3.1.25.2 (d).

Quote

The piping for loading and unloading on deck, the venting piping with the exception of the shore connections but including the safety valves, and the valves shall be located within the longitudinal line formed by the outer boundaries of the domes and not less than one quarter of the vessel’s breadth from the outer shell. This requirement does not apply to the relief pipes situated behind the safety valves. If there is, however, only one dome athwartships, these pipes and their valves shall be located at a distance not less than 2.70 m from the shell. Where cargo tanks are placed side by side, all the connections to the domes shall be located on the inner

side of the domes. The external connections may be located on the fore and aft centre line of the dome. The shut-off devices shall be located directly at the dome or as close as possible to it. The shut-off devices of the loading and unloading piping shall be duplicated, one of the devices being constituted by a remote controlled quick-action stop device. When the inside diameter of a shut-off device is less than 50 mm this device may be regarded as a safety device against bursts in the piping.

Unquote

7. It seems that this “quick-action stop device” is similar as the “quick closing valve” mention in the proposition of amendment. So we would modify the text of 9.3.1.25.2 (d):

“The shut-off devices of the loading and unloading piping shall be duplicated, one of the devices being constituted by a remote controlled ~~quick action stop device~~ quick closing valve.”

II. Proposal of amendments in English (“quick closing valve”)

8. In 3.2.3.1 (Explanations concerning Table C) — Column (20) “Additional requirements/Remarks”:

“31. When these substances are carried, the vessel shall be equipped with a ~~rapid blocking valve~~ quick closing valve placed directly on the shore connection.”

9. In 7.2.2.21:

“It shall be possible to interrupt loading or unloading of substances of Class 2 and substances assigned to UN Nos. 1280 and 2983 of Class 3 by means of switches installed at two locations on the vessel (fore and aft) and at two locations ashore (directly at the access to the vessel and at an appropriate distance on shore). Interruption of loading and unloading shall be effected by the means of a ~~quick action stop valve~~ quick closing valve which shall be directly fitted to the flexible connecting hose between the vessel and the shore facility.”

10. In 9.3.1.21.9:

“The vessel shall be so equipped that loading or unloading operations can be interrupted by means of switches, i.e. the ~~quick action stop valve~~ quick closing valve located on the flexible vessel-to-shore connecting line must be capable of being closed. The switches shall be placed at two points on the vessel (fore and aft).”

11. In 9.3.1.25.2 (d):

“The shut-off devices of the loading and unloading piping shall be duplicated, one of the devices being constituted by a remote controlled ~~quick action stop device~~ quick closing valve.”

12. In 9.3.1.25.2 (f):

“Each shore connection of the venting piping and shore connections of the piping for loading and unloading, through which the loading or unloading operation is carried out, shall be fitted with a shut-off device and a ~~quick action stop valve~~ quick closing valve. However, each shore connection shall be fitted with a blind flange when it is not in operation.”

13. In 9.3.2.21.9:

“The vessel shall be so equipped that loading or unloading operations can be interrupted by means of switches, i.e. the ~~quick action stop valve~~ quick closing valve located on the

flexible vessel-to-shore connecting line must be capable of being closed. The ~~switch~~
switches shall be placed at two points on the vessel (fore and aft).”

III. Proposal of amendments in French (“vanne à fermeture rapide”)

14. In 3.2.3.1 (*Explications concernant le tableau C*) — Colonne (20) “Exigences supplémentaires/Observations”:

“31. En cas de transport de ces matières le bateau doit être équipé d’une ~~vanne de sectionnement rapide~~ vanne à fermeture rapide placée directement au raccordement à terre.”

15. In 9.3.1.21.9:

“Le bateau doit être équipé de manière à ce que les opérations de chargement ou de déchargement puissent être interrompues au moyen d’interrupteurs, c’est-à-dire que la ~~souape de fermeture rapide~~ vanne à fermeture rapide située à la conduite flexible de raccordement entre le bateau et la terre doit pouvoir être fermée. Ces interrupteurs doivent être placés à deux emplacements du bateau (à l’avant et à l’arrière).”

16. In 9.3.1.25.2 (d):

“Les dispositifs de fermeture des tuyauteries de chargement et de déchargement doivent être doublés, l’un des dispositifs étant constitué ~~d’un dispositif de fermeture rapide télécommandé~~ d’une vanne à fermeture rapide télécommandée.”

17. In 9.3.2.21.9:

“Le bateau doit être équipé de manière à ce que les opérations de chargement ou de déchargement puissent être interrompues au moyen d’interrupteurs, c’est-à-dire que la ~~souape de fermeture rapide~~ vanne à fermeture rapide située à la conduite flexible de raccordement entre le bateau et la terre doit pouvoir être fermée. Ces interrupteurs doivent être placés à deux emplacements du bateau (à l’avant et à l’arrière).”

18. In 7.2.2.21 and 9.3.1.25.2 (f) of the French version, no amendments are required.
