Rapid blocking valve

Transmitted by the Recommended ADN Classification Societies*, **

A. Reference to rapid blocking valve in 3.2.3.1

1. In 3.2.3.1 (Explanations concerning Table C) — Column (20) “Additional requirements/Remarks” we can read for the remark 31:

   In the English version:
   “When these substances are carried, the vessel shall be equipped with a rapid blocking valve placed directly on the shore connection.”

   In the French version:
   «En cas de transport de ces matières le bateau doit être équipé d’une vanne de sectionnement rapide placée directement au raccordement à terre.»

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** In accordance with the programme of work of the Inland Transport Committee for 2016–2017 (ECE/TRANS/2016/28/Add.1 (9.3.)).
In the German version:
“Bei der Beförderung dieser Stoffe muss das Schiff mit einem Schnellschlussventil direkt am Landanschluss versehen sein.”

2. This remark 31 is only attributed to all substances requiring a Type G vessel and to two substances requiring a type C 11 vessel (i.e. UN 1280 — propylene oxide, inhibited; UN 2983 — ethylene oxide and propylene oxide mixture with max 30% ethylene oxide).

3. The following questions arise:
   - What is exactly this “rapid blocking valve”? An electro valve? a pneumatic valve? with a type approval certificate?
   - Is it possible to illustrate this with an example (Manufacturer, type )?
   - Are there several manufacturers of such valves?

4. For the Recommended ADN Classification Societies:
   - This “rapid blocking valve” is a remote quick closing valve;
   - Quick closing valves have to be "Fail-closed type" (closed during power failure) and it has to be possible to close it by hand;
   - A type approval certificate is not mandatory;
   - The drive to open the valve can be hydraulic, pneumatic or electric;
   - For electrical drives, the explosion protection is to note;
   - The closing time for the valve has to be chosen so that pressure surges in the pipes will be avoided; and
   - The valves have to close in a way so that the flow may be softly stopped.

5. There are terminology inconsistencies in other requirements of Parts 7 and 9 (7.2.2.21; 9.3.1.21.9; 9.3.1.25.2 and 9.3.2.21.9)

6. In the German text of 3.2.3.1 we find the word “Schnellschlussventil” (”vanne de sectionnement rapide” — “rapid blocking valve”). But in some other paragraphs (7.2.2.21; 9.3.1.21.9; 9.3.1.25.2 and 9.3.2.21.9) the word “Schnellschlussventil” is translated:
   - The French version, by «vanne à fermeture rapide» or «soupape de fermeture rapide»;
   - In the English version, by “quick action stop valve” or “quick-action stop valve”;

These inconsistencies are shown in the English, French and German texts reproduced in the annex.

Proposal for correction

7. In the context of all the requirements where those words are used, we may observe that it concerns the same valve; so the use of an unique wording would be better (as in the German version).

We propose:
   - In the German version: “Schnellschlussventil”
   - In the French version: “vanne à fermeture rapide”
– In the English version: “quick closing valve” (or “Emergency shut-down valve” or “Remote operated quick closing valve”).

8. The United Nations translation services may wish to check the Russian version.
Annex

7.2.2.21 Safety and control equipment

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 which shall be directly fitted to the flexible connecting hose between the vessel and the shore facility.

The system of disconnection shall be designed in accordance with the closed circuit principle.

7.2.2.21 Équipement de contrôle et de sécurité

Il doit être possible d'interrompre le chargement et le déchargement des matières de la classe 2 et des matières affectées au Nos ONU 1280 ou 2983 de classe 3, en actionnant des interrupteurs électriques situés en deux points sur le bateau (à l'avant et à l'arrière) et en deux points à terre (respectivement sur l'appontement et à distance appropriée à terre). L'interruption du chargement ou du déchargement doit se faire au moyen d'une vanne à fermeture rapide, qui sera montée directement sur la conduite flexible entre le bateau et l'installation à terre. Le système de coupure doit être conçu selon le principe du courant de repos.

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 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).

The interruption systems shall be designed according to the quiescent current principle.

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 soupape de fermeture rapide située à la conduite flexible de raccordement entre le bateau et la terre doit pouvoir être fermée.
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. However, each shore connection shall be fitted with a blind flange when it is not in operation.

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 located on the flexible vessel-to-shore connecting line must be capable of being closed. The switch shall be placed at two points on the vessel (fore and aft). This provision applies only when prescribed in column (20) of Table C of Chapter 3.2. The interruption system shall be designed according to the quiescent current principle.