



Economic Commission for Europe**Inland Transport Committee****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)****Thirty-seventh session**

Geneva, 24–28 August 2020

Item 4 (b) of the provisional agenda

**Proposals for amendments to the Regulations annexed to ADN:
Other proposals****Spring-loaded low-pressure valve****Transmitted by the Government of the Netherlands^{*,**}***Summary***Executive summary:** Low-pressure valves that prevent the activation of the vacuum valve can only be built as weight-loaded valves.**Action to be taken:** The Safety Committee is requested to adopt the proposed amendments in paragraph 4 and to discuss the necessity of amendments to 9.3.X.62**Introduction**

1. During the thirty-first session of the ADN Safety Committee the amendments as proposed by the informal working group on degassing were accepted into the ADN. Part of the amendments concerned a new concept: the spring-loaded low-pressure valve. The intent of this valve was to ensure a safe way to prevent exceedance of the maximum permissible vacuum in the cargo tanks. The valve has two main functions; first, to automatically close the opening towards the air in the case of a loss of suction power at the reception facility. And second, to prevent the use of the vacuum valve under normal working conditions. The vacuum valve is a safety device that should not be used for regular degassing operations.

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** In accordance with the programme of work of the Inland Transport Committee for 2020 as outlined in proposed programme budget for 2020 (A/74/6 (part V sect. 20) para 20.37).

2. The technical specifications on the valve are set out under 9.3.X.62. In this section the valve is described as a spring-loaded low-pressure valve that shall be so installed that under normal working conditions the vacuum valve is not activated. However, the representatives of the inland navigation industry brought to the attention of the Safety Committee that spring-loaded low-pressure valves that prevent the use of the vacuum valve do not exist.

3. Valves are either spring-loaded or weight-loaded. Only weight-loaded valves can be built to accommodate the specification in ADN that the low-pressure valve should prevent the activation of the vacuum valve. Therefore, the Dutch delegation proposes to delete the wording "spring-loaded" in association with the low-pressure valve.

Amendments

4. Proposed amendments are bold and underlined, deleted text is stricken through:

7.2.3.7.2.3

"Degassing to reception facilities may be carried out by using the piping for loading and unloading or the venting piping to remove the gases and vapours from the cargo tanks while using the other piping respectively to prevent exceedance of the maximum permissible overpressure or vacuum of the cargo tanks.

Piping shall be part of a closed system or, if used to prevent exceedance of the maximum permissible vacuum in the cargo tanks, be equipped with a permanently installed or portable ~~spring-loaded~~ low-pressure valve, with a flame-arrester (Explosion group/subgroup according to column (16) of Table C of Chapter 3.2) if explosion protection is required (column (17) of Table C of Chapter 3.2). This low-pressure valve shall be so installed that under normal working conditions the vacuum valve is not activated. A permanently installed valve or the opening to which a portable valve is connected, must remain closed with a blind flange when the vessel is not degassing to a reception facility.

All piping connected between the degassing vessel and the reception facility shall be equipped with an appropriate flame arrester if explosion protection is required in column (17) of Table C of Chapter 3.2. The requirements for piping on board shall be: Explosion group/subgroup according to column (16) of Table C of Chapter 3.2."

8.6.4, question 6.2

"Is the air inlet part of a closed system or equipped with a ~~spring-loaded~~ low-pressure valve?"

9.3.X.62

"A permanently installed or portable ~~spring-loaded~~ low-pressure valve used during degassing operations to reception facilities, shall be fitted at the piping used to extract air. If the vessel's substance list, according to 1.16.1.2.5, contains substances for which explosion protection is required according to column (17) of Table C of Chapter 3.2, this valve shall be fitted with a flame arrester capable of withstanding a deflagration. When the vessel is not degassing to a reception facility, the valve shall be closed with a blind flange. The low-pressure valve shall be so installed that under other normal working conditions the vacuum valve is not activated.

NOTE: Degassing operations are part of normal working conditions. "

Discussion in the Netherlands

5. After the introduction of the low-pressure valve, there has been some discussion in the Netherlands whether the low-pressure valve is mandatory equipment on every vessel since it was described in Chapter 9. As reflected in the first two paragraphs of 7.2.3.7.2.3 and in question 6.2 of the Checklist degassing to reception facilities the use of the low-pressure valve during degassing operations to reception facilities is not mandatory. A closed system, where the exceedance of the maximum permissible vacuum in the cargo tanks is prevented

by an intake of air provided by the reception facility, is an equal, if not preferable, option to the use of the low-pressure valve.

6. The Dutch delegation is of the opinion that:

(a) the low-pressure valve is not intended as mandatory equipment on every vessel and;

(b) it is sufficiently clear in ADN that the low-pressure valve is not mandatory equipment on every vessel.

7. However, the Dutch delegation is interested to hear the opinions from the other delegations on these matters.

Action to be taken

8. The Dutch delegation requests the ADN Safety Committee to consider the proposed amendments in paragraph 4 and to take action as it deems appropriate. The Dutch delegation also requests the ADN Safety Committee to discuss the topics in paragraph 6 and to take action as it deems appropriate.
