

**Economic and Social Council**

Distr.: General
9 November 2020
English
Original: French

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, 25–29 January 2021

Item 5 (b) of the provisional agenda

Proposals for amendments to the Regulations annexed to ADN:**Other proposals**

**Degassing of inland waterway tank vessels at a reception facility – spring loaded low-pressure valve
ECE/TRANS/WP.15/AC.2/2020/36 – (Netherlands)**

Transmitted by the Government of Germany* **

Introduction

1. Germany thanks the Netherlands for its initiative reacting to previous discussions in the Safety Committee on improving the requirements for the degassing of inland waterway tankers at reception facilities.

2. In the introduction to the document, the function of a “low-pressure valve” is explained. There is no definition of a low-pressure valve in 1.2.1 of ADN. Then in 9.3.x.62, the function is not described clearly enough.

INF.35 (UENF/OEB) – in German only – from the thirty-fifth session, section 3: “*In addition, the operation of a new spring-loaded low-pressure valve in addition to the existing vacuum valve does not seem to have been sufficiently considered.*”

3. In the view of the German delegation, the interpretation of the informal group of recommended ADN classification societies (INF.11 for the thirty-fifth session, report of the seventeenth session, section 4. r. to 6) is not convincing: “The group recommends that the available under-pressure safety valve should be used to lead the air into the cargo tanks. This is common practice on sea-going ships”.

* Distributed in German by the Central Commission for the Navigation of the Rhine under the symbol CCNR-ZKR/ADN/WP.15/AC.2/2021/3.

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



4. The 9.3.x.62 paragraphs contain a significant error, as the text of the requirements is not in line with the results of the work of the informal working group on degassing of tank vessels. Germany had already raised this point at the thirty-fifth session of the ADN Safety Committee in August 2019 (informal document INF.14 of the thirty-fifth session).

5. Germany proposes that, when the proposal in document ECE/TRANS/WP.15/AC.2/2020/36 is considered, the following proposed amendments aimed at improving the requirements for the low-pressure valve in all its aspects should also be considered:

(a) A pressure-equalizing valve is required in cargo tanks for the piping for air intake on board the vessel and not, as currently stated in the text of the requirements, for the piping for air extraction (ECE/TRANS/WP.15/AC.2/2017/47, paras. 9 and 10).

(b) The function of this valve, i.e., to prevent other vacuum valves referred to in 9.3.2.22.4 or 9.3.3.22.4 from opening on cargo tanks during equalization of pressure in an open system for degassing, should be described more clearly in the text of the requirement. (ECE/TRANS/WP.15/AC.2/72, para. 10).

To this end, the term “low-pressure valve” should be replaced by “additional vacuum valve”.

(c) Degassing of type G tankers is not possible at reception facilities as defined in the Convention on the Collection, Storage and Reception of Waste Generated during Navigation on the Rhine and Other Inland Waterways (CDNI). Therefore, there is no need for 9.3.1 to contain construction rules for low-pressure valves/additional vacuum valves.

(d) The title and text of 7.2.3.7.2.1 should have the same content.

(e) The service requirements in part 7 should not repeat construction rules already given in 9.3.x.62.

(f) In the list in 1.4.2 of ADN, Obligations of the main participants, it is not sufficiently clear who is responsible for protecting the opening used on board for pressure equalization by means of an additional vacuum valve and who is responsible for flame arresters in the piping between the vessel and the reception facility.

(g) According to ADN 8.6.4, Checklist for degassing to reception facilities, question 6.2, the operator of the reception facility must ensure that the air intake port is fitted with a spring-loaded low-pressure valve [new: additional vacuum valve] for the equalization of pressure in the cargo tank. However, the operator of the reception facility generally does not have access to the technical equipment on board the vessel.

Proposals for amendments

6. Delete 9.3.1.62.

7. Amend 9.3.2.62 and 9.3.3.62 to read as follows:

“9.3.x.62 Additional vacuum valve for degassing to reception facilities

An aperture in the loading and unloading piping or in the venting piping used at reception facilities for the degassing of cargo tanks and loading and unloading piping to extract ambient air for the purpose of equalization of pressure (see 7.2.3.7.2.3) shall be fitted with a connection for an additional portable vacuum valve or an additional permanently installed vacuum valve.

The trigger pressure of this valve shall be adjusted so that the vacuum valve referred to in 9.3.x.22.4 is not activated during degassing.

If the vessel’s substance list according to 1.16.1.2.5 contains substances for which explosion protection is required in column (17) of Table C of Chapter 3.2, the valve shall be fitted with a flame arrester capable of withstanding a deflagration. When the vessel is not degassing to a reception facility, the aperture shall be closed with a blind flange.

NOTE: Paragraph 7.2.4.22.1 applies for the opening of this aperture.”

8. In 7.2.3.7.2.1 of ADN, make the following modification:

In the first sentence, replace “Empty or unloaded cargo tanks” with “Empty or unloaded cargo tanks and piping for loading and unloading”.

9. In 7.2.3.7.2.3 of ADN, make the following modification:

(a) In the second sentence, replace “a permanently installed or portable spring-loaded low-pressure valve” with “an additional permanently installed or portable vacuum valve in accordance with 9.3.1.62, 9.3.2.62 or 9.3.3.62”.

(b) Delete the third sentence: “This low-pressure valve shall be so installed that under normal working conditions the vacuum valve is not activated.”

10. In 1.4.2.2.1 of ADN (Carrier), in subparagraph (i), replace “unloading and any other handling” with “unloading, degassing and any other handling”.

11. In 1.4.3.8.1 of ADN (Reception facility operator), amend subparagraph (b) to read as follows:

“Ascertain that, when prescribed in 7.2.3.7.2.3, there are flame arresters in all the piping of the reception facility which is connected to the degassing vessel, to protect the vessel against detonations and passage of flames from the side of the reception facility.”

12. In 8.6.4, Checklist degassing to reception facilities, make the following change:

Question 6.2 is amended to read as follows:

<p>6.2 Is the air inlet <u>for equalization of pressure in the cargo tank</u> part of a closed system or is it equipped with an <u>additional vacuum</u> spring loaded low pressure valve?</p>	<p><u>O</u>**)</p>	<p>O**, ***)</p>
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***) *Only applicable if vacuum is used to generate air flows.*

****) *Only applicable if air inlet is in piping of the shore-based reception facility.*