



## Economic and Social Council

Distr. générale  
20 October 2017

Original: English

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### 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-second session

Geneva, 22-26 January 2018

Item 5 (b) of the provisional agenda

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

### **Interpretation of 7.1.4.4.3 of ADN regarding minimum separation distance of flexible bulk containers**

**Transmitted by the Central Commission for the Navigation of the Rhine (CCNR)\*,\*\***

#### **I. Introduction**

1. In the last meeting of the ADN Safety Committee the CCNR Secretariat was asked to prepare a document on questions of interpretation of special provisions for flexible bulk containers according to 7.1.4.4.3 of ADN (see also ECE/TRANS/WP.15/AC.2/62, para. 30).
2. Based on contributions received from the Dutch and German delegation, the CCNR Secretariat further determined the issue of flexible bulk containers in regard to provision 7.1.4.4.3 ADN:

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\* Distributed in German by the Central Commission for the Navigation of the Rhine in document CCNR-ZKR/ADN/WP.15/AC.2/2018/4.

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

7.1.4.4.3 For containers other than those referred to in paragraph 7.1.4.4.1 and 7.1.4.4.2 above the separation distance required by 7.1.4.3.1 may be reduced to 2.40 m (width of container).

3. The question on interpretation of 7.1.4.4.3 ADN originates from the fifteen meeting of the informal working group on training of experts (Informal document - INF.5 of the twenty-nine session, para. 8):

- In the case of 7.1.4.4.3 ADN, are particular provisions required for flexible bulk containers?

## II. Question to the ADN Safety Committee for interpretation

4. Do flexible bulk containers fall under provision 7.1.4.4.3 of ADN?

5. In case the above mentioned provision does not apply to flexible bulk containers, is there a need for particular provisions for flexible bulk containers under 7.1.4?

## III. Background information

6. Based on working document ECE/TRANS/WP.15/AC.1/2013/37 (United Kingdom on behalf of informal working group on flexible bulk containers (FBCs)) and informal document INF.10 of the same session, the Joint meeting adopted in 2013 regulations on flexible bulk containers for RID/ADR/ADN (ECE/TRANS/WP.15/AC.1/132/Add.2):

Chapter 7.1 (ADN)

7.1.1.18 In the heading and in the text, insert “, in bulk containers” after “containers”.

7.1.4.14.1.1 Add the following sentence at the end:

“Flexible bulk containers shall be stowed in such way that there are no void spaces between flexible bulk containers in the hold. If the flexible bulk containers do not completely fill the hold, adequate measures shall be taken to avoid shifting of cargo.”.

7.1.4.14.1.2 Add the following sentence at the end:

“Flexible bulk containers may be stacked on each other in holds provided that the stacking height does not exceed 3 high. When flexible bulk containers are fitted with venting devices, the stowage of the flexible bulk containers shall not impede their function.”.

7. In its twenty-sixth session, the ADN Safety Committee adopted provisions for the carriage of flexible bulk containers (ECE/TRANS/WP.15/AC.2/54, paras. 40 and 41):

“40. The Safety Committee noted that the RID/ADR/ADN Joint Meeting had recommended the adoption of the provisions already drawn up in 2013 for the use of flexible bulk containers. The Working Party on the Transport of Dangerous Goods (WP.15) had consequently adopted provisions for ADR 2017, and similar provisions had also been adopted for RID. The Safety Committee considered that the same could be done for transport on inland waterways. It thus approved the relevant provisions in document ECE/TRANS/WP.15/AC.1/132/Add.2 and ECE/TRANS/WP.15/226, annex I (see annex II).

41. The representative of Germany raised the question of whether it would be advisable to amend 7.1.4.12.2. It was pointed out to him that if the paragraph had to be amended, then

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it would probably be advisable to take into account all types of bulk containers. He was therefore invited to reconsider the matter, with the possibility of submission of a proposal at the next session.”.

8. Provisions in ADN 2017 which could apply to flexible bulk containers:

**1.2.1 Definitions**

*Flexible bulk container* means a flexible container with a capacity not exceeding 15 m<sup>3</sup> and includes liners and attached handling devices and service equipment;

**7.1.4.3 Prohibition of mixed loading (packages in holds)**

7.1.4.3.1 Goods of different classes shall be separated by a minimum horizontal distance of 3.00 m. They shall not be stowed one on top of the other.

**7.1.4.4 Prohibition of mixed loading (containers, vehicles, wagons)**

7.1.4.4.1 7.1.4.3 shall not apply to packages stowed in containers, vehicles or wagons in accordance with international regulations.

7.1.4.4.2 7.1.4.3 shall not apply to:

- Closed containers with complete metal walls;
- Closed vehicles and closed wagons with complete metal walls;
- Tank-containers, portable tanks and MEGCs;
- Tank-vehicles and tank-wagons.

7.1.4.4.3 For containers other than those referred to in paragraph 7.1.4.4.1 and 7.1.4.4.2 above the separation distance required by 7.1.4.3.1 may be reduced to 2.40 m (width of container).

**7.1.4.14 Handling and stowage of the cargo**

7.1.4.14.1.1 Packages containing dangerous substances and unpackaged dangerous articles shall be secured by suitable means capable of restraining the goods (such as fastening straps, sliding slatboards, adjustable brackets) in a manner that will prevent any movement during carriage which would change the orientation of the packages or cause them to be damaged. When dangerous goods are carried with other goods (e.g. heavy machinery or crates), all goods shall be securely fixed or packed so as to prevent the release of dangerous goods. Movement of packages may also be prevented by filling any voids by the use of dunnage or by blocking and bracing. Where restraints such as banding or straps are used, these shall not be overtightened to cause damage or deformation of the package. Flexible bulk containers shall be stowed in such way that there are no void spaces between them in the hold. If the flexible bulk containers do not completely fill the hold, adequate measures shall be taken to avoid shifting of cargo.

7.1.4.14.1.2 Packages shall not be stacked unless designed for that purpose. Where different design types of packages that have been designed for stacking are to be loaded together, consideration shall be given to their compatibility for stacking with each other. Where necessary, stacked packages shall be prevented from damaging the package below by the use of load-bearing devices. Flexible bulk containers may be stacked on each other in holds provided that the stacking height does not exceed three high. When flexible bulk containers are fitted with venting devices, the stowage of the flexible bulk containers shall not impede their function.

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