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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)****Twenty-eighth session**

Geneva, 25-29 January 2016

Item 5 (b) of the provisional agenda

**Proposals for amendments to the Regulations annexed to ADN:****Other proposals****Proposals for wording and assignment of remarks 35 and 36 in Table C****Transmitted by the Central Commission for the Navigation of the Rhine (CCNR)<sup>1</sup>**

1. On the basis of an informal document from the Belgian delegation, the ADN Safety Committee noted that, in 9.3.x.27.6, remarks 35 and 36 were not assigned in column (20) of Table C. The Committee invited the informal working group on substances to look into the matter.

2. The informal working group on substances considered the issue. The requirements for construction provide for combined refrigeration systems, as well as direct and indirect systems. Remark 35 indicates that direct refrigeration systems are not allowed. Remark 36 requires the use of a direct refrigeration system. In the current requirements, remarks 35 and 36 are not assigned to any entry in Table C.

3. Assignment of remarks 35 and 36 is intended to prevent the use of refrigeration systems involving partial or complete refrigeration with compression of the cargo in the case of substances for which such densification is likely to lead to dangerous reactions. In Table C, that concerns the following four entries:

UN No. 1040      ETHYLENE OXIDE WITH NITROGEN up to a total pressure of 1 MPa (10 bar) at 50 °C

UN No. 1089      ACETALDEHYDE (ethanal)

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<sup>1</sup> Distributed in German by the Central Commission for the Navigation of the Rhine under the symbol CCNR-ZKR/ADN/WP.15/AC.2/2016/8.



- UN No. 1280 PROPYLENE OXIDE and
- UN No. 2983 ETHYLENE OXIDE AND PROPYLENE OXIDE MIXTURE, not more than 30% ethylene oxide
4. The members of the informal working group came to the conclusion that remarks 35 and 36 could be merged to facilitate their use.
5. It is therefore proposed that, in 3.2.3.1 Explanations concerning Table C, in the explanations for column (20), remark 35 be drafted as follows:  
“35. Only an indirect system for the cargo refrigerating system is permitted for this substance. Direct or combined systems are not permitted.”
6. The following wording is proposed for remark 36:  
“36. Merged with remark 35.”
7. Consequently it is also proposed that the wording of remark 35 be amended in 3.2.3.3 Flowchart, schemes and criteria for determining applicable special requirements (columns (6) to (20) of Table C), column (20): Determination of additional requirements and remarks, and in 3.2.4.3 Criteria for assignment of substances, L. Column (20): Determination of additional requirements and remarks, as follows:  
“Remark 35: Reference shall be made in column (20) to remark 35 for substances for which partial or complete refrigeration may cause dangerous reactions in the event of compression.”
8. It is also proposed that the provision concerning remark 36 in the passages mentioned in paragraph 7 be deleted.
9. In the following entries in column (20) of Table C, add “; 35”:
- UN No. 1040 ETHYLENE OXIDE WITH NITROGEN up to a total pressure of 1 MPa (10 bar) at 50 °C
- UN No. 1089 ACETALDEHYDE (ethanal)
- UN No. 1280 PROPYLENE OXIDE and
- UN No. 2983 ETHYLENE OXIDE AND PROPYLENE OXIDE MIXTURE, not more than 30% ethylene oxide
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