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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)

Fifteenth session
Geneva, 24-28 August 2009
Item 4 (c) of the provisional agenda

**PROPOSALS FOR AMENDMENTS TO THE REGULATIONS
ANNEXED TO ADN**

Pump-room below deck

Transmitted by the Government of Germany^{1,2}

1. At the fourteenth session of the Joint Meeting of Experts on the Regulations annexed to the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN), the document transmitted by Germany on pump-rooms below deck (ECE/TRANS/WP.15/AC.2/2009/1) was discussed. The participants concluded that:

¹ Distributed in German by the Central Commission for the Navigation of the Rhine under the symbol CCNR/ZKR/ADN/WP.15/AC.2/2009/33.

² In accordance with the programme of work of the Inland Transport Committee for 2006-2010 (ECE/TRANS/166/Add.1, programme activity 02.7 (b)).

(a) The existing wording of the requirements concerning carriage by inland navigation vessels is currently interpreted as authorizing a pump-room below deck for all substances of Class 2, i.e. also for those with T in the classification code;

(b) In the requirements concerning carriage of dangerous goods by seagoing vessels, pump-rooms are prohibited below deck as a general principle;

(c) Germany's technical arguments, based on safety considerations, in favour of the prohibition of pump-rooms below deck for substances of Class 2 were supported by some delegations;

(d) Reservations were expressed by the profession should the prohibition on pump-rooms below deck also affect refrigeration systems.

2. Further consultations with the profession led to the conclusion that Germany's proposal that all substances of Class 2 should be included within the prohibition was acceptable.

Proposal

3. It is proposed to prohibit pump-rooms below deck for all substances of Class 2. This proposal entails the following amendments:

(a) Amend the criteria for determining whether a pump-room is permitted below deck (Chapter 3.2, Table C):

Column (14) Determination of whether a pump-room is permitted below deck

No - All substances with T in column (3 b) and all substances of Class 2

Yes - All other substances;

(b) In Table C of Chapter 3.2, insert "no" in column (14) for the following UN numbers or identification numbers: 1005, 1010 (3 times), 1011, 1012, 1020, 1030, 1033, 1055, 1063, 1077, 1083, 1086, 1912, 1965 (9 times), 1969, 1978 and 9000;

(c) For vessels in service, specify a transitional period: "Renewal of the certificate of approval as from 1 January 2045".

Justification

4. The vessel's crew members should be protected from hazardous situations, including the risk of intoxication or explosion. Such hazardous situations occur rapidly in the case of leakage

of gases in a pump-room located below deck. The time span between the flammable gas detector triggering the alarm at 20% of the lower explosive limit and the explosivity range being reached is considerably shorter than in the case of liquids with a lower vapour pressure.

5. Moreover, in most cases flammable gas detectors use catalytic combustion detectors. These detectors react to high gas/vapour concentrations with a certain delay.

6. Another problem is that in the case of a sharp increase of the concentration, as may be the case with gases, the catalytic combustion detector is completely overwhelmed and no longer provides a useable signal.
