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**ECONOMIC COMMISSION FOR EUROPE**

**INLAND TRANSPORT COMMITTEE**

Working Party on the Transport of Dangerous Goods

Joint Meeting of the RID Committee of Experts and the  
Working Party on the Transport of Dangerous Goods  
Bern, 26-30 March 2007

**REPORT OF THE SESSION**

**Held in Bern from 26 to 30 March 2007**

**Addendum\***

**Annex 1: Report of the working group on tanks**

The secretariat has received from the Intergovernmental Organisation for International Carriage by Rail (OTIF) the French translation of the report of the working group on tanks, prepared in German and partially in English by the representative of Germany in the course of the session (informal document INF.49). The report is reproduced below.

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\* Circulated by the Intergovernmental Organisation for International Carriage by Rail (OTIF) under the symbol OTIF/RID/RC/2007-A/Add.1.

## Annex I

### REPORT OF THE WORKING GROUP ON TANKS

1. The working group on tanks met on 27 and 28 March 2007, concurrently with the RID/ADR/ADN Joint Meeting, which had entrusted it with the relevant mandate.
2. The working group considered the following official and informal (INF.) documents:

ECE/TRANS/WP.15/AC.1/2007/8 (Netherlands), ECE/TRANS/WP.15/AC.1/2007/10 (Netherlands), ECE/TRANS/WP.15/AC.1/2007/20 (France), ECE/TRANS/WP.15/AC.1/2007/23 (Portugal), INF.3 (Switzerland), INF.8 (Germany), INF.10 (Switzerland), INF.15 (Belgium), INF.16 (Belgium), INF.25 (CLCCR), INF.34 (Netherlands), INF.35 (France), INF.38 (Bulgaria), INF.40 (AEGPL).

**NOTE:** Documents ECE/TRANS/WP.15/AC.1/2007/11 and ECE/TRANS/WP.15/AC.1/2007/18, which also related to tanks, were discussed at the plenary session.

3. The working group was made up of 23 experts from 13 countries and three non-governmental organizations.
4. The order of discussion of the documents was determined by the requirements and presence of the experts.

**Item 1: Documents: ECE/TRANS/WP.15/AC.1/2007/8 (Netherlands) (Tanks divided by partitions or surge plates, intended for liquefied gases), INF.34 (Netherlands), INF.40 (AEGPL)**

5. Document ECE/TRANS/WP.15/AC.1/2007/8 was replaced by document INF.34, in which it was proposed to extend to tanks used for the carriage of liquefied gases the requirement for surge plates that was already applicable to certain tanks used for the transport of liquids. Because of the relatively low density of UN No. 1963 (refrigerated liquid helium) and UN No. 1966 (refrigerated liquid hydrogen) gases, tanks used for the carriage of such gases would not be concerned. Document INF.34 also recommended that the requirement in question should apply to molten substances with a kinematic viscosity of at most 2,680 mm<sup>2</sup>/s. AEGPL supported the proposal in principle, but nevertheless proposed amending the text by referring to standard EN 12493, cited in RID/ADR.

6. The various means of proceeding and experiences with liquefied gas tanks were presented. The group specifically addressed the various tank structures (large, small) for refrigerated and non-refrigerated gases. The density of liquefied gases was also used as a criterion for the application of the surge plate requirement. As the existing rule for liquids in 4.3.2.2.4 was not being called into question, it should also apply to gases of similar density carried in the liquid state. The group unanimously considered that the surge plate requirement should apply to

liquefied gases as well, with the exception of helium and hydrogen cited in the proposal. A majority decision was taken to adopt the proposal of the Netherlands, with minor editorial amendments, and to place it in square brackets, with the tank section capacity (7,500 litres) still to be determined. The group thus proposes amending the text of 4.3.2.2.4 to read as follows (RID only, right-hand column):

[“Shells intended for the carriage of substances in the liquid state or liquefied gases or refrigerated liquefied gases, which are not divided by partitions or surge plates into sections of not more than 7,500 litres capacity, shall be filled to not less than 80% or not more than 20% of their capacity.

This provision is not applicable to:

- Liquids with a kinematic viscosity at 20° C of at least 2,680 mm<sup>2</sup>/s;
- Molten substances with a kinematic viscosity at the temperature of filling of at least 2,680 mm<sup>2</sup>/s; and
- UN No. 1963 HELIUM, REFRIGERATED, LIQUID and UN No. 1966 HYDROGEN, REFRIGERATED, LIQUID”]

7. For the next session, AEGPL would submit a new proposal which would take account of the discussion. The Joint Meeting is requested to approve the procedure.

**Item 2: Document ECE/TRANS/WP.15/AC.1/2007/10 (Netherlands) - Paragraph 6.8.2.1.4 - Technical code/standards, and INF.25 (CLCCR) - Editorial comments**

8. The proposal in document 2007/10 was aimed at clarifying paragraph 6.8.2.1.4, taking into consideration the new requirements of subsections 6.8.2.6 and 6.8.2.7. The discussion led to endorsement of the argument that it was clear from the paragraph that the standards took precedence over the recognition of an (alternative) regulation. The editorial amendment proposed in informal document INF.25 was not deemed necessary.

9. The following text was adopted:

“6.8.2.1.4 Shells shall be designed and constructed in accordance with the requirements of standards listed in 6.8.2.6 or of a technical code recognized by the competent authority, in accordance with 6.8.2.7, in which the material is chosen ...” (remainder unchanged).

10. In the ensuing discussion it was suggested that the titles of chapter 6.8 and of subsections 6.8.2.1 and 6.8.3.1 be amended. The group approved the replacement of the term “Construction” by “Design and construction”. If the Joint Meeting approves that change, a document presenting the required amendments should be submitted for the next session.

**Item 3: Document ECE/TRANS/WP.15/AC.1/2007/20 (France) - Application of the standards referred to in subsection 6.8.2.6**

11. The proposed amendments were aimed, on the one hand, at clarifying the mandatory application of the standards and, on the other, at deferring such application by one year because of the need to revise the standards. The proposal was discussed at length and, with the exception of the transitional measure, was eventually supported by the majority of delegates. A few points deemed to be important were approved and taken into account in editorial amendments, one of which, for example, set out the obligation for a technical code to provide the same level of safety. The majority of members considered that, in the light of the amended text, it had become unnecessary to grant a two-year period to the competent authorities to withdraw recognition for the application of technical codes, when reference was made to an appropriate standard in 6.8.2.6.

12. While some members of the working group considered that the addition to paragraph 6.8.2.1.4 did not require amendment of the content of 6.8.2.6 and 6.8.2.7, a majority decision was taken to clarify the first paragraph of subsection 6.8.2.6 and to make an editorial amendment to 6.8.2.7, as set out in the following paragraph.

13. In 6.8.2.6, replace the phrase “The requirements of Chapter 6.8 are considered to have been complied with if the following standards are applied:” with:

“The following standards shall be applied to meet the requirements of chapter 6.8.”

In 6.8.2.7, delete the first and second paragraphs.

The third paragraph (new first paragraph) should read as follows:

“To reflect scientific and technical progress or where no standard is listed in 6.8.2.6, or to deal with specific aspects not addressed in a standard listed in 6.8.2.6, the competent authority may recognize the use of a technical code providing the same level of safety. Tanks shall, however, comply with the minimum requirements of 6.8.2.”

14. As for the second proposal (transitional measures 1.6.3 and 1.6.4), the majority considered that the reasons adduced did not justify deferring the mandatory application of the standards. Furthermore, it was noted that because of a previous decision by the Joint Meeting, only specific and non-general transitional measures should apply. The second proposal was therefore rejected.

15. On the other hand, the group approved a comprehensive solution for chapter 6.8 in respect of the deadlines for the application of standards. The current second paragraph of 6.8.2.7 (“Where an appropriate standard is referenced in 6.8.2.6 ...”) was added in amended form after the table of 6.8.2.6, as follows:

In 6.8.2.6, insert after the table the following paragraph:

“Standards listed for the first time shall become mandatory after two years. In the case of a revised or amended standard, only the previously listed version of the standard may be used as an alternative for a period of two years.”

**Item 4: Document ECE/TRANS/WP.15/AC.1/2007/23 (Portugal) - Special provisions of 6.8.4**

16. The document described the existing situation as it related to the TE and TC special provisions after restructuring of the regulations, and had already been discussed briefly during the previous session (INF.19). The proposal set out possible ways of simplifying the special provisions, which should facilitate their application. The document was again presented, and then discussed at length. It was pointed out that the suggestion to avoid the use of expressions such as “may be” or “if ... then” in special provisions had no further justification, as the Joint Meeting had established clear rules in that regard.

17. Some members of the group considered that transferring special provisions to the text of the regulations would not be a good solution, as few substances or groups of substances were concerned, and it would challenge a principle that had been accepted during restructuring. The various special provisions were discussed in the order in which they were presented in the proposal. The decisions set out below were taken.

18. The special provisions relating to insulation could not be grouped together or deleted, as they applied to the specific substances to which they were assigned. The replacement of special provision TE 4 with special provision TE 14 was not justifiable from the technical safety standpoint, as the term “not readily flammable” could be understood to apply to temperatures well above the design temperature of the tank.

19. The group unanimously agreed that the term “not readily flammable” was not clearly defined. Germany should try to clarify it, preferably by reference to existing standards.

20. The differences between special provisions TE 9 and TE 11 were discussed. The more restrictive nature of special provision TE 9 (no excess pressure) was justified by the properties of the substances of UN Nos. 2015 and 2426 to which it was assigned. In this case, it was necessary to avoid even the slightest pressure build-up, but that was not necessary for the substances to which special provision TE 11 was assigned. An amendment of the requirements was therefore not required.

21. As for special provision TE 18, the group was unable to take a decision because of a lack of background information. It was unclear whether the application of the provision depended on the substance carried or the tank used. Portugal was requested to provide the group with information at the next session.

**Item 5: Document INF.3 (Switzerland) - Tank record - Negative tests**

22. The informal document was presented in an effort to solve the problem of tank “tourism”. When tanks failed tests, they were sometimes later presented for testing at another test centre, without the prior test results being included in the tank record and without the expert

administering the new test being informed. The proposal was in principle supported by the majority of the group; however, it was not possible to adopt the text as it stood. The parts of the text relating to the stages of the procedure and the possible deadlines to be met needed to be reworded.

**Item 6: Document INF.8 (Germany) - Special marking provision (TM 5)**

23. It was proposed not to affix particulars of the most recent inspection of the internal condition of the shell, as established rules existed for such inspection which must be carried out in each case. The special provision was considered unnecessary.

24. The group confirmed the deletion of the provision for the substances of UN Nos. 1052 and 1790. The deletion for UN No. 1744 (bromine), on the other hand, could not be accepted. Indeed, special provision TT 2, which was also applicable to that substance, had a shorter verification period and was thus directly linked to special provision TM 5.

**Item 7: Document INF.10 (Switzerland) - Contents of the tank record**

25. The informal document was discussed and supported by the majority of the group. The representative of Switzerland was asked to submit an amended text for the proposed definition of the tank record in 1.2.1 and in the related NOTE. The text should take account of the requirements set out between square brackets and in the NOTE. The text proposed in the NOTE contained requirements that could not be taken up in a definition.

**Item 8: Document INF.15 (Belgium) - Degree of filling**

26. The proposal was supported in principle. The proposed way of indicating the capacity of the sections formed by the surge plates was not, however, considered satisfactory. Some simpler solutions were discussed, and the representative of Belgium was requested to submit an official proposal.

**Item 9: Document INF.16 (Belgium) - 6.8.3.2.3 - Internal safety device**

27. The proposal was supported, as non-return valves could not perform the “remote triggering” function required by the regulation.

28. The group adopted the proposal with the following editorial amendments:

6.8.3.2.3 to be reworded as follows:

“All filling and all discharge openings of tanks ...”

Add the following paragraph at the end:

“A non-return valve does not fulfil the provisions of this paragraph.”

**Item 10: Document INF.35 (France) - Interpretation of 6.8.2.1.7**

29. France questioned whether the requirements of 6.8.2.1.7 for tanks carrying refrigerated liquefied gases were justified, and the group was requested to give its opinion. Following a short discussion, it was decided that the requirements in question should not apply to tanks for refrigerated liquefied gases. The representative of France was requested to draw up a relevant text for the next session.

**Item 11: Document INF.38 (Bulgaria) - Tank codes under 4.3.4.1.1**

30. The proposal was discussed and it was decided to replace “and” by “or” in the explanation of letters A and B, in part 3 of the coding of tanks under 4.3.4.1.1. The Joint Meeting is requested to include the amendment in a corrigendum to the 2007 edition of RID/ADR.

31. The Joint Meeting is requested to approve the amendments proposed under the various points.

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