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Joint Meeting of the RID Committee of Experts and the Working Party on the Transport of Dangerous Goods

Report of the Joint Meeting of the RID Committee of Experts and the Working Party on the Transport of Dangerous Goods on its Autumn 2010 session[1]

held in Geneva from 13–17 September 2010

Addendum[2]

Annex I

Report of the Working Group on Tanks

The secretariat has received from the Intergovernmental Organisation for International Carriage by Rail (OTIF) the English 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.35). The report is reproduced below.

[1] Circulated by the Intergovernmental Organization for International Carriage by Rail (OTIF) under the symbol OTIF/RID/RC/2010-B. Unless otherwise indicated, the other documents referred to in this report under the symbol ECE/TRANS/WP.15/AC.1/ followed by the year and a serial number were circulated by OTIF under the symbol OTIF/RID/RC/ followed by the year and the same serial number.

[2] Circulated by the Intergovernmental Organization for International Carriage by Rail (OTIF) under the symbol OTIF/RID/RC/2010-B/Add.1.

Report of the Working Group on Tanks

1. The Working Group on Tanks met from 13 to 14 September 2010 in Geneva on the basis of an appropriate mandate from the RID/ADR/ADN Joint Meeting. The documents were submitted to the plenary session.

2. The Working Group on Tanks dealt with the following official and informal documents:

ECE/TRANS/WP.15/AC.1/2010/39 (ECFD)

ECE/TRANS/WP.15/AC.1/2010/43 (Germany)

ECE/TRANS/WP.15/AC.1/2010/49 (Italy)

INF.6 (Germany)

INF.10 (ECFD)

INF.22 (Germany, Austria, CEFIC, UIP)

INF.27 (Belgium)

INF.29 (Sweden)

3. The Working Group on Tanks was comprised of sixteen experts from eight States and three non-governmental organizations (NGOs).

4. The documents were dealt with in a sequence depending on requirements and the presence of experts.

Item 1: Document ECE/TRANS/WP.15/AC.1/2010/39 and informal document INF.10 (ECFD) – Additive systems on tanks for UN No. 1202 heating oil, light

5. At the last session of the Working Group on Tanks, the original proposal on additive systems had been discussed on the basis of document ECE/TRANS/WP.15/AC.1/2010/14 submitted by ECFD. The Working Group discussed at length the documents submitted by ECFD on the basis of the questions that were raised at the last session. Once the basic requirements had been established, a new provisional text proposal was drafted and submitted to the plenary session.

6. The details of the conclusions were as follows:

(a) According to ECFD, all types of tanks may be concerned.

(b) A definition in 1.2.1 was not supported. This should be dealt with in a general special provision in Chapter 3.3, to be assigned to substances UN 1202 and [UN 1203 and] UN 1223.

(c) The additive system should be defined as part of the tank equipment. This system would then be integrated into the tank approval and would hence be subject to the initial and periodic inspections.

(d) The majority was against including requirements in a special provision TE xy, because, for example, the marking could not be dealt with in a TE special provision. It was proposed to include the requirements in the above-mentioned special provision in Chapter 3.3.

(e) The additive storage receptacle could be a component of the additive system in three different variations ((a) attached to the shell, (b) part of the shell and (c) not attached to the shell).

7. It was also discussed whether the additive in storage receptacles not attached to the tank could fall under an exemption provision in 1.1.3.

8. Limiting the capacity and maximum number of receptacles was discussed without reaching a final conclusion, because no justification was given for the receptacle size and number of receptacles (4 x 100 litres) referred to in the proposal.

9. A transitional provision should be provided for existing additive systems that have a national approval.

10. The result so far is set out in the following draft:

Chapter 3.2

Table A Include a special provision “xyz” in column (6) for UN 1202[, UN 1203] and UN 1223.

Chapter 3.3 Add a special provision "xyz" as follows:

"xyz Additive system means a system for dispensing the additives UN 1202, UN 1993 and UN 3082 into the discharge system of tanks during discharge. The additive system is permanently connected to the discharge system and consists of a storage receptacle, metering units and connecting lines. It forms part of the tank equipment and shall be subject to the tank approval, the initial, periodic and intermediate inspections and tests and exceptional checks.

The storage receptacle is either:

(a) permanently fixed to the outside of the tank; or

(b) an integral part of the tank itself; or

(c) separate from the tank.

The capacity of the storage receptacles shall be not more than [100 l.]

The storage receptacle shall be positioned in such a way on the tank that it is protected against damage during carriage.

The minimum thickness of storage receptacles shall be 2.5 mm in stainless austenitic steels, 3 mm in other steels and 4 mm in aluminium alloys [in case of (a) or (b)] [or make reference to 6.8]. [The sides of the receptacles may be without radius or convexity.]

The receptacle shall be tested before being put into service and at each periodic and intermediate inspection of the tank [in case of (a) or (b)]. [In case of (c) …].

The test pressure shall be at least 0.3 bar.

The line entering the discharge system shall be protected against backflow of the tank contents into the additive system by a non-return valve.”

11. The technical details should be discussed further at the next session. The Joint Meeting was asked to endorse this course of action and the members of the Working Group on Tanks were asked for comments. ECFD was asked to submit a proposal for new wording on this basis.

Item 2: Document ECE/TRANS/WP.15/AC.1/2010/43 and informal document INF.6 (Germany) and informal document INF.27 (Belgium) – Section 1.6.3: review of transitional measures

12. The Working Group agreed with the proposal in document ECE/TRANS/WP.15/AC.1/2010/43, which suggested reviewing the existing transitional

measures. This was particularly the case for the principles referred to in paragraphs 7 (a) to (c) of the proposal:

- All tanks must comply with the respective RID/ADR provisions currently in force.

- There can be no exceptions to this rule unless they are explicitly stipulated in transitional measures. The transitional measures must be worded in such a way that the provisions which can be derogated from are clearly indicated.

- New provisions included in RID/ADR later also apply to tanks that are subject to these transitional measures, provided that this is not qualified by special transitional measures (this approach has already been taken into account in the decisions of the Joint Meeting in recent years).

13. The principle in paragraph 7 (d) of document ECE/TRANS/WP.15/AC.1/2010/43 concerning the deletion of transitional measures was discussed and was to be checked separately during the review. Deleting transitional measures was problematical, because the reasons for the permitted derogations could not subsequently be discerned from the provisions.

14. The Working Group on Tanks agreed unanimously that a review of the transitional measures should be carried out in the Joint Meeting.

15. In accordance with the request in paragraph 8 of document ECE/TRANS/WP.15/AC.1/2010/43, the Working Group then examined the various transitional measures on the basis of informal documents INF.6 (Germany) and INF.27 (Belgium).

16. In so doing, for some of the transitional measures there were no new texts or only provisional texts. The members of the Working Group on Tanks were to draft or re-examine these ones by the next session. To achieve this, it was suggested that e-mails should be exchanged. For this work, the Working Group on Tanks needed the notification texts of earlier RID and ADR tank provisions, i.e. the amendments that were adopted. The secretariats were asked to support the Working Group in this respect.

17. The result of this preliminary review is given below. It must be borne in mind that tank-containers have not (yet) been included.

1.6.3.1 (RID/ADR) Delete text.

1.6.3.2 (RID/ADR) Delete text.

1.6.3.3 (RID/ADR) New text by combining texts of 1.6.3.1, 1.6.3.2 and 1.6.3.3.

1.6.3.4 (RID) Tank-wagons constructed before 1 January 1988 in accordance with the requirements applicable up to 31 December 1987 and which do not conform to the requirements applicable from 1 January 1988 may still be used. This also applies to tank-wagons which do not bear the inscription of the shell materials in accordance with Appendix XI, 1.6.1 (new: 6.8.2.5.1), required from 1 January 1988.

[Background:

Appendix XI, 1.6.1: material of the shell and, where appropriate, the protective lining.

Taken over into 6.8.2.5.1: material of the shell and reference to materials standards, if available and, where appropriate, the protective lining.]

1.6.3.4 (ADR) (a) Fixed tanks (tank-vehicles), demountable tanks and battery-vehicles constructed before 1 May 1985 in accordance with the requirements of ADR in force between 1 October 1978 and 30 April 1985 but not conforming to the requirements

applicable as from 1 May 1985 [text of amendments] may continue to be used after that date.

(b) Fixed tanks (tank-vehicles), demountable tanks and battery-vehicles constructed between 1 May 1985 and the entry into force of the requirements applicable as from 1 January 1988 [text of amendments] which do not conform to those requirements but were constructed according to the requirements of ADR in force until that date may continue to be use

1.6.3.5 (RID/ADR) Tank-wagons / Fixed tanks (tank-vehicles), demountable tanks and battery-vehicles constructed before 1 January 1993 in accordance with the requirements in force up to 31 December 1992 but which do not conform to the requirements applicable as from 1 January 1993 [text of amendments] may still be used.

1.6.3.6 (RID) Text from the OTIF secretariat needed.

1.6.3.6 (ADR) Fixed tanks (tank-vehicles), demountable tanks and battery-vehicles constructed before 1 January 1990 may still be used provided that they conform to the requirements of 6.8.2.1.20 concerning shell thickness and protection against damage.

Consequential amendment: amend beginning of 6.8.2.1.20 to read:

"There is protection within the meaning of 6.8.2.1.19 if …".

1.6.3.7 (RID) Text from the OTIF secretariat needed.

1.6.3.7 (ADR) Text from the UNECE secretariat needed.

1.6.3.8 (RID/ADR) Delete the first paragraph.

[Second paragraph? Valid for the future?].

1.6.3.9 and 1.6.3.10 (Reserved)

1.6.3.11 (RID/ADR) Texts from the secretariats needed.

1.6.3.12 (RID) (Deleted)

1.6.3.13 (Reserved)

1.6.3.14 (RID) Still needed. Text from the OTIF secretariat needed.

1.6.3.15 (RID/ADR) Keep text as it is.

1.6.3.16 (RID/ADR) Keep text as it is.

1.6.3.17 (RID/ADR) Keep text as it is.

1.6.3.18 (RID/ADR) Keep new text as it is.

18. The Joint Meeting was asked to agree to the aforementioned course of action.

Item 3: Informal document INF.29 (Sweden) – Measures adopted on tanks according to 6.8.2.1.20 or in standard EN 13094:2008

19. After the document was introduced and the background was explained, the Working Group on Tanks discussed the need to amend the text in 6.8.2.1.20.

20. To make matters clear, the present legal situation was described and confirmed. The legal situation is that according to 6.8.2.1.4, tanks must be designed and constructed in accordance with the requirements of standards listed in 6.8.2.6 or of a technical code in accordance with 6.8.2.7. As the applicable tank standard EN 13094 contained rules for the case of reducing the wall thickness, the Working Group on Tanks was of the view that

these rules must be applied. Exceptions to this were only allowed by means of a technical code according to the rules of 6.8.2.7.

21. The majority of the group saw no immediate need to amend 6.8.2.1.20. Sweden was asked to submit an appropriate proposal if further clarification were needed.

Item 4: Document ECE/TRANS/WP.15/AC.1/2010/49 (Italy) – Transport of UN 1081 Tetrafluoroethylene, stabilized

22. It was not possible to deal with this agenda item, which was postponed to the next session.

Item 5: Informal document INF.22 (Germany, Austria, CEFIC, UIP) – Carriage of desulfurization agents based on UN 1402 Calcium carbide

23. At present, the substance UN 1402 calcium carbide is carried in several States in bulk in silo tanks. Prior to the restructuring of RID/ADR, there was only one entry for UN 1402 calcium carbide, in marginal (2)471, item no. 17 (b). An entry for packing group I (at that time item no. 17 (a)) did not exist. According to Appendix XI, paragraph 4.1.7 and Appendix X, paragraph 4.1.5 (RID)/marginals 211 410 (g) and 212 410 (g) (ADR) and marginal (2)486 (1), carriage of the dangerous good was permitted in tank-wagons/tank-vehicles and tank-containers and in bulk.

24. With the restructuring of RID/ADR, two entries (packing group I and II) for UN 1402 calcium carbide have been included in Table A of Chapter 3.2. Goods assigned to packing group II may still be carried in bulk and in tanks with tank code “SGAN”. Goods assigned to packing group I may only be carried in portable tanks (tank instruction T 9).

25. Today, however, it is to be noted that calcium carbide fulfils the criteria of 2.2.43.1.8 (a) of RID/ADR for assignment to packing group I. This means that carriage in existing tanks and in bulk, and hence supplying the steel industry with calcium carbide, is no longer possible.

26. An additional problem is the fact that for UN 1402 packing group I in column (12) of Table A of Chapter 3.2, no tank code is given and tank instruction T 9 given for portable tanks is not suitable because of the requirement for top discharge. In addition, no tank code is available in the rationalised approach in 4.3.4.1.2 for solids of Class 4.3 and of classification code W 2.

27. Therefore, it would only be possible to resolve this problem in the short term by concluding a multilateral special agreement. This was proposed by Germany, Austria, CEFIC and UIP.

28. Some members of the Working Group on Tanks pointed out that there are substances of Class 4.3 and of classification code W 2 which were assigned tank code S10AN with special provisions TU 4, TU 14, TU 22, TU 38 (tank-wagons only), TE 21, TE 22 (tank-wagons only), and TM 2 (e.g. UN 2813 and UN 3395).

29. The Working Group on Tanks consequently discussed the proposal for the future further development of the law. The reason for the absence of a tank code for UN 1402 PG I was unknown. The proposed tank code S4AN and classification as a (+)-substance was justified by the CEFIC representatives who were present, with regard to the divergent calculation pressure, with reference to the special characteristics of the substance (e.g. the formation of acetylene).

30. Owing to the lack of background information on the substance, the Working Group on Tanks was unable to agree to the proposed tank code and the classification as a (+)-substance, and asked that an official proposal with suitable justification be submitted.

31. With regard to the proposed text that was submitted for a multilateral special agreement, it was unanimously agreed that the requirements and conditions it contained were essentially in line with those that are prescribed for substances of packing group I of this class. In this respect, the conclusion of a multilateral special agreement was agreed, also against the background of relevant experience and the absence of any known incidents.