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Working Party on the Transport of Dangerous Goods

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

REPORT OF THE SESSION

held in Bern from 24 to 28 March 2003

Addendum 1

Annex 1

Report of the Working Group on Tanks

The Working Group on Tanks met in Bern from 24 to 26 March 2003, separately from the RID/ADR Joint Meeting, on the basis of a mandate entrusted to it by the RID/ADR Joint Meeting of 24 March 2003, under agenda item 2.

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The Working Group on Tanks discussed the following official and informal documents:

- TRANS/WP.15/AC.1/2003/1
- TRANS/WP.15/AC.1/2003/12
- TRANS/WP.15/AC.1/2003/13
- TRANS/WP.15/AC.1/2003/19
- TRANS/WP.15/AC.1/2003/31
- TRANS/WP.15/AC.1/2003/33
- TRANS/WP.15/AC.1/2003/34
- TRANS/WP.15/AC.1/2003/36
- TRANS/WP.15/AC.1/2003/39
- INF.4
- INF.6
- INF.11
- INF.14
- INF.15
- INF.27
- INF.38
- INF.41

The Working Group on Tanks was composed of a total of 20 experts from 12 States and two international non-governmental organizations.

Since not all the experts attended every meeting, the documents were discussed in chronological order as the experts were present.

1. Document TRANS/WP.15/AC.1/2003/1 (Germany) in conjunction with TRANS/WP.15/AC.1/2003/19 (Germany) and INF.15 (EIGA)

The aim of the proposal contained in document TRANS/WP.15/AC.1/2003/1 submitted by the Government of Germany was the protection of shut-off devices on battery vehicles/wagons. Document TRANS/WP.15/AC.1/2003/19 provided an example of adequate valve protection. The counter-proposal submitted by EIGA in document INF.15 was essentially based on the relevant provisions for MEGCs contained in Chapter 6.7.

It transpired in the course of the discussion that the two proposals dealt in part with identical points of safety but in detail pursued different protection aims. After a lengthy discussion, it was agreed that account should be taken of the two proposals as new paragraphs 6.8.3.2.18 and 6.8.3.2.19 (see annex 2 of the report).

The drawing up of specific quality requirements should take place in the context of standardization efforts. In the opinion of some participants, transitional measures were also considered to be necessary.

2. Document TRANS/WP.15/AC.1/2003/13 (Netherlands)

The aim of the proposal was to include a requirement in 6.9.5.2 for the internal examination of fibre-reinforced plastics tanks for tests in accordance with 6.8.2.4.3.

During the discussion, the Working Group confirmed the opinion of the representative of the Netherlands that, with reference to the lining of fibre-reinforced plastics tanks, special measures were required to ensure safety and it was agreed to recommend that the Joint Meeting should adopt the proposal without amendment.

3. Document INF.4 (Germany)

Chapter 6.10 contained provisions which should be applied to vacuum operated waste tanks to supplement the provisions of Chapter 6.8 or modify them. In order to clarify the additional requirements already contained in section 6.10.4 for periodic tests for such tanks, the representative of Germany proposed new wording for section 6.10.4. The proposal was accepted by the Working Group which requested its adoption by the Joint Meeting (see annex 2 of the report).

4. Document INF.6 (Switzerland)

In this proposal, the Government of Switzerland drew attention to the fact that a tank code appeared in Column (12) of Table A of Chapter 3.2 for UN No. 1076 phosgene, although carriage was permitted only in MEGCs which were not composed of tanks. It was proposed for that reason that the tank code "P22DH" should be deleted.

The "(M)" code should be kept in Column (12), however, as an indication that carriage was possible in MEGCs. The result of deleting the tank code would be that special provision "TM6" must be deleted in Column (13).

The discussion led to the adoption of the proposal by the Government of Switzerland, but it was decided in addition to delete the phrase "after the tank code" in the explanatory note for Column (12) concerning letter "(M)" in Chapter 3.2.

The Joint Meeting had also entrusted the Working Group with the mandate of examining whether other entries were concerned by analogy. The same action should be taken with these substances.

The Working Group noted that the same action should be taken with UN No. 1001 acetylene, dissolved and UN No. 1067 dinitrogen tetroxide.

The Working Group requested the Joint Meeting to fall in with this opinion.

5. Document TRANS/WP.15/AC.1/2003/36 (France)

The proposal by the Government of France to include in Chapter 1.6 a transitional measure for the application of special provision TE1 was approved with an amendment by the Working Group and was submitted to the Joint Meeting which was invited to adopt it.

6. Document INF.41 (France)

Two different requirements appeared in special provision TE14 for UN No. 3257, namely, equipment with thermal insulation and with safety devices; this gave rise to problems of implementation.

Where safety devices were concerned, special provision TE6 contained almost identical wording, which meant that the additional requirement in TE14 could be omitted. If that were the case, special provision TE6 should be assigned to the entry in addition to amended special provision TE14.

The Working Group approved the proposal.

7. Document TRANS/WP.15/AC.1/2003/34 (Belgium)

The proposal by the Government of Belgium was based on paragraph 26 of the report of the Working Group (TRANS/WP.15/AC.1/90/Add.2) and on paragraph 13 of the report of the Joint Meeting (TRANS/WP.15/AC.1/90).

The Chairman recalled the decisions contained in the proposal and introduced the discussion on the subject.

Proposals 4.1 to 4.5 were discussed in detail one after the other and adopted in principle, then adapted in accordance with the results of the discussion.

It was decided by a majority that the provisions contained in the proposals concerning vacuum valves preceded by a bursting disc should be deleted since this variant in the equipment was not considered to be necessary. The following facts were defined or confirmed during the discussion:

- The new text of 6.8.2.1.7 prescribes a design pressure of at least -0.21 bar as external gauge pressure (overpressure) for all tanks intended for the carriage of liquids;

- No hermetically closed tank with a test pressure/design pressure of less than 4 bar is permitted for the carriage of liquids;

- No vacuum valves are permitted on hermetically closed tanks (exception: TE15 in 6.8.4).

The amendments made to the proposal by the Government of Belgium were essentially based on these decisions. The result of the discussion appears in the following text: [see] annex 2 of the report.

In the opinion of the Working Group, with the relevant clarifications and rewording of the proposal by the Government of Belgium, the simplification envisaged of the exceptionally complex requirements in this part of the text had been achieved.

The Joint Meeting was requested to endorse this opinion and the proposed texts associated with it.

8. Document INF.11 (Germany)

The document submitted by the Government of Germany referred to an existing provision for tanks for the carriage of solids in the United Nations Model Regulations, containing reduced conditions for the design and properties required for safety devices for tanks to guard against external overpressure.

The discussion of the proposal by the Government of Germany led to the adaptation of the requirements of RID/ADR and gave the result indicated in annex 2 of the report.

The Joint Meeting was requested to fall in with the Working Group's opinion.

9. Document TRANS/WP.15/AC.1/2003/12 (Germany)

The existing requirements for vacuum operated waste tanks included provisions concerning safety devices, without specifications for their design.

It was for that reason that the Government of Germany had proposed some relevant requirements; these were discussed by the Working Group.

There was majority agreement on new wording for 6.10.3.9 (see annex 2 of the report).

The Joint Meeting was requested also to approve the proposal.

10. Document TRANS/WP.15/AC.1/2003/31 (UIC)

In order to use vacuum operated waste tanks in rail traffic, it would be necessary to make the consequential amendments proposed by UIC.

After a lengthy discussion, the Working Group agreed to take the proposal into account in the form of an adaptation of existing subsection 4.5.1.1.

Subsection 4.5.1.1 should therefore be worded as follows:

"4.5.1.1 Wastes consisting of substances of Classes 3, 4.1, 5.1, 6.1, 6.2, 8 and 9 may be carried in vacuum operated waste tanks conforming to Chapter 6.10 if the carriage of those wastes in [fixed tanks, demountable tanks: ADR only] tank-containers or tank swap bodies is permitted according to Chapter 4.3. Substances assigned to tank code L4BH in Column (12) of Table A of Chapter 3.2 or to another tank code permitted under the hierarchy in 4.3.4.1.2 may be carried in vacuum operated waste tanks with the letter 'A' or 'B' in part 3 of the tank code."

The Working Group requested the Joint Meeting to approve this solution.

11. Document INF.14 (OCTI)

This proposal had already been discussed by the RID Committee of Experts as a proposal by the Government of Austria - OCTI/RID/CE/39/12(c) - and had been transmitted to the Joint Meeting in view of its equal importance for ADR.

The marking on the tank or on a panel of the substance accepted for carriage was no longer as necessary since the entry into force of the restructured RID/ADR. The Working Group approved the proposal from this standpoint. The additional considerations contained in paragraph 173 of the report of the thirty-ninth session of the RID Committee of Experts concerning the marking of the special provisions of 6.8.4 on the tank or on a panel were approved in principle. It would be desirable for these considerations to be set out in a proposal for the next Joint Meeting.

12. Document INF.15 (Italy)

This proposal was available in French only and some delegates were not in a position to discuss it with any competence. It should, however, be noted, that the French-speaking delegations had clearly not welcomed it positively.

The Working Group therefore suggested that it should be discussed again, once the other language versions were available.

It was recommended that the delegations of Italy, France and/or Switzerland should meet, in view of the reservations expressed, to polish the proposal as necessary.

13. Document TRANS/WP.15/AC.1/2003/39 (UIP) in conjunction with INF.27 (Germany)

Since across Europe tanks were built with only a tiny margin for corrosion, localized areas of wear and tear frequently appeared during operation (for example, spots of corrosion on the tank bottom) which meant that the minimum thickness of the wall was no longer complied with. Treating these areas of corrosion by means of welding, for example, did not improve safety (because of the constraints inherent in welding).

Pertinent technical requirements would need to be drawn up in order to make available to experts an instrument to allow them, when making checks, to estimate whether and to what extent a decrease in wall thickness was acceptable. The example of a German technical directive demonstrated a possible form of procedure. The problem raised could thus be resolved without giving rise to any failure to ensure safety and was moreover also in conformity with the provisions of European codes for pressurized receptacles (e.g. the AD regulations).

The possibility in principle of including solutions of this type in RID/ADR should be discussed by the Working Group on Tanks.

The result of the discussion was that a solution could be envisaged in the case of very limited local areas of reduced wall thickness (pitting).

Larger surfaces with reduced wall thickness should be excluded from these considerations. Informal document INF.21, submitted by Germany, set out this point clearly.

UIP was again asked to submit a document based on the above principles and also containing the details required for the next Joint Meeting.

The Joint Meeting was requested to approve this procedure pending the submission of the document.

14. Document TRANS/WP.15/AC.1/2003/33 (UIC)

The proposal dealt with several problems concerning Chapter 6.7 (portable tanks). For example, it referred to the difficulties encountered in this chapter in determining the test pressure for the substance to be carried.

Unlike the test pressure determined for RID/ADR tanks, the design pressure for mobile tanks should in theory be determined individually for each substance and level of filling.

The United Nations Sub-Committee of Experts had to date rejected the proposals to simplify this calculation and resolve the other problems raised in the UIC document.

The Working Group's mandate was to submit possible solutions. It did not consider that it was in a position to do so owing to lack of knowledge of the current proposals and the time still available, but it recommended the following procedure, in view of the fact that these tanks could operate without restrictions within the scope of RID/ADR:

The Joint Meeting is not able to amend the requirements of Chapter 6.7 if the provisions of the Model Regulations have to be applied without amendment in RID/ADR.

A small informal working group composed of the representatives of UIC, Belgium, Germany and the United Kingdom should therefore include the problems raised in a new draft proposal which, after further discussion in the Working Group on Tanks and the Joint Meeting, and if approved, could be the subject of official proposals to the United Nations Sub-Committee of Experts.

The emphasis necessary for a (positive) handling of the proposals at a session of the United Nations Sub-Committee of Experts should therefore be appropriate.

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