



Economic and Social Council

Distr.: General
23 December 2015

Original: English

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, 14–18 March 2016

Item 2 of the provisional agenda

Tanks

Tanks: pressure test using gas

Transmitted by the Government of the United Kingdom^{1, 2}

1. A footnote in RID and ADR 6.8.2.4.1 6.8.2.4.2 and 6.8.3.4.11 says that *in special cases and with the agreement of the expert approved by the competent authority, the hydraulic pressure test may be replaced by a pressure test using gas, where such an operation does not present any danger*. No definition is provided for “special cases” but could include such diverse circumstances as environmental concerns, health and safety issues, technological developments, product contamination and design limitations.

2. At the meeting of CEN/TC 296/WG 5 “Testing, inspection and marking” held on 30 June and 1 July in Berlin (Germany) it was decided, during discussion on the possible revision of EN 12972:2015, that the United Kingdom should ask the Joint Meeting of the RID Committee of Experts and the Working Party on the Transport of Dangerous Goods for clarification on “special cases” and whether it would be possible to describe a test using gas so that such a test does not present an additional danger compared to the hydraulic test.

3. To assist the Joint Meeting, the United Kingdom has undertaken a review of RID and ADR and found that only in the case of fixed tanks (ADR 6.8) is a pressure test using gas confined to “special cases”. Elsewhere, such as for pressure receptacles (ADR 6.2) and portable tanks (ADR 6.7), provided the competent authority agrees, and an equivalent level of safety is ensured which does not entail any danger, the circumstance under which a

¹ In accordance with the draft programme of work of the Inland Transport Committee for 2016–2017, (ECE/TRANS/WP.15/2015/19 (9.2)).

² Circulated by the Intergovernmental Organisation for International Carriage by Rail (OTIF) under the symbol OTIF/RID/RC/2016/12.

pressure test using gas may replace the hydraulic pressure test does not need to be a special case. For these vessels it is simply the norm that *with the agreement of the competent authority, the hydraulic pressure test may be replaced by a test using gas, where such an operation does not entail any danger or the pressure test may be performed as a hydraulic test or by using gas with the agreement of the competent authority or its authorised body.*

4. On this basis, the United Kingdom tabled an informal paper at the autumn 2015 session of the Joint Meeting for consideration by the Working Group on Tanks, offering to submit an official proposal for the spring 2016 session to remove the term “special cases” and align RID and ADR 6.8.2.4.1 6.8.2.4.2 and 6.8.3.4.11 with the above provisions for pressure receptacles (ADR 6.2) and portable tanks (ADR 6.7) which do not stipulate the need for the circumstance to be a special case before the hydraulic test may be replaced by a test using gas.

5. The proposal is set out below and includes a few editorial amendments to better align the respective paragraphs and remove a potential cause of confusion with ADR 1.1.5 over the application of the standard referenced in ADR for the inspection and test of tanks.

Proposal

6. Amend ADR 6.8.2.4.1 to read:

“6.8.2.4.1 Shells and their equipment shall either together or separately undergo an initial inspection before being put into service. This inspection shall include:

- a check of conformity to the approved type;
- a check of the design characteristics⁹
- an examination of the internal and external conditions;
- ~~a leakproofness test and a check of the satisfactory operation of all the equipment; and.~~
- a hydraulic pressure test¹⁰ at the test pressure indicated on the plate prescribed in 6.8.2.5.1; ~~and.~~

NOTE: With the agreement of the competent authority, the hydraulic pressure test may be replaced by a test using a gas, where such an operation does not entail any danger.

~~- a leakproofness test and a check of satisfactory operation of the equipment.~~

Except in the case of Class 2, the test pressure ...”

~~¹⁰ “In special cases and with the agreement of the expert approved by the competent authority, the hydraulic pressure test may be replaced by a pressure test using another liquid or gas, where such an operation does not present any danger.”~~

7. Amend ADR 6.8.2.4.2 to read:

“6.8.2.4.2 Shells and their equipment shall undergo periodic inspections no later than every

six years. five years.

These periodic inspections shall include:

- An external and internal examination;
- A leakproofness test in accordance with 6.8.2.4.3 of the shell with its equipment and a check of the satisfactory operation of all the equipment; ~~and~~

- As a general rule, a hydraulic pressure test⁴⁰ (for the test pressure for the shells and compartments if applicable, see 6.8.2.4.1).

NOTE: With the agreement of the competent authority, the hydraulic pressure test may be replaced by a test using a gas, where such an operation does not entail any danger.

Sheathing for thermal or other insulation shall ...”

~~*“⁴⁰ In special cases and with the agreement of the expert approved by the competent authority, the hydraulic pressure test may be replaced by a pressure test using another liquid or gas, where such an operation does not present any danger.”*~~

8. Amend ADR 6.8.3.4.11 to read:

“6.8.3.4.11 The initial inspection shall include:

- a check of conformity to the approved type;
- a check of the design characteristics;
- an examination of the internal and external conditions;
- a leakproofness test at the maximum working pressure and a check of the satisfactory operation of all the equipment; and
- a hydraulic pressure test⁴⁰ at the test pressure indicated on the plate prescribed in 6.8.3.5.10;

NOTE: With the agreement of the competent authority, the hydraulic pressure test may be replaced by a test using a gas, where such an operation does not entail any danger.

~~– a leakproofness test at the maximum working pressure; and~~

~~– a check of satisfactory operation of the equipment.~~

When the elements and their fittings have been ...”

~~*“⁴⁰ In special cases and with the agreement of the expert approved by the competent authority, the hydraulic pressure test may be replaced by a pressure test using another liquid or gas, where such an operation does not present any danger.”*~~

9. In addition, to avoid any confusion with ADR 1.1.5 over the application of the standard referenced in ADR for the inspection and test of tanks, and to be consistent with ADR 6.8.2.6.1, ADR 6.8.2.6.2 should be amended to read:

“6.8.2.6.2 *Inspection and test*

The standard referenced in the table below shall be applied for the inspection and test of tanks as indicated in column (4) to meet the requirements of Chapter 6.8 referred to in column (3). The standard shall be applied in accordance with 1.1.5.

~~The use of a referenced standard is mandatory.~~

The scope of application of each standard is defined ...”