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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, 8-11 September 2009 and
Geneva, 14-18 September 2009
Item 4 of the provisional agenda

INTERPRETATION OF RID/ADR/ADN

Cylinders used in bundles of cylinders, battery-wagons/battery-vehicles and MEGCs

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

SUMMARY

Executive summary: Clarification of the use of cylinders in bundles of cylinders, battery-wagons/battery-vehicles and MEGCs.

Action to be taken: Clarify technical issues related to the interaction of various sections of RID/ADR.

Related documents: None.

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

² Circulated by the Intergovernmental Organisation for International Carriage by Rail (OTIF) under the symbol OTIF/RID/RC/2009/27.

Introduction

1. The requirements for gas cylinders are set out in Chapter 6.2. Cylinders are pressure receptacles; the definition of pressure receptacles in section 1.2.1 includes bundles of cylinders. Cylinders can also be elements of battery-wagons/battery-vehicles and multiple-element gas containers (MEGCs).

Bundles of cylinders

2. Bundles of cylinders may be authorized both under sections 6.2.1 and 6.2.2, as UN pressure receptacles, and under section 6.2.1, in conjunction with sections 6.2.3 and 6.2.4, as pressure receptacles for RID/ADR (for simplicity's sake, hereunder referred to as RID/ADR pressure receptacles). The text below does not consider possible authorization under section 6.2.5.

3. Neither the table in 6.2.2 nor the one in 6.2.4 currently refers to standards for bundles of cylinders. A standard is, however, being considered; it is the draft of ISO/DIS 10961. In this context the question has arisen as to whether a bundle of cylinders could make use of a combination of cylinders conforming with section 6.2.2 (for UN pressure receptacles) and section 6.2.4 (for RID/ADR pressure receptacles).

4. From the point of view of safety, such a combination of cylinders in a bundle should pose no problem. With such a combination, the question has to be asked as to whether such a mixed bundle would be considered as a UN pressure receptacle or a RID/ADR pressure receptacle. This is decisive in determining in where the bundle of cylinders is authorized for carriage.

5. In Germany's view, a mixed bundle of cylinders cannot be authorized and used as a UN pressure receptacle, as section 6.2.2 refers only to UN pressure receptacles, and is harmonized worldwide. A mixed bundle of cylinders could, however, be considered as a RID/ADR receptacle, as both the pressure receptacles under section 6.2.2 and those under section 6.2.4 are authorized for carriage between all the member States of OTIF/Contracting Parties of ADR.

6. If the Joint Meeting agrees with what is stated in paragraph 5, it will be necessary to insert it in the appropriate places of the notes in sections 6.2.2 and 6.2.3 so as to clarify and facilitate the work of users and inspectors.

Battery-wagons/battery-vehicles whose elements are cylinders

7. Battery-wagons/battery-vehicles are authorized only in RID/ADR. They may contain both cylinders and bundles of cylinders as elements.

8. It can also be possible in battery-wagons/battery-vehicles to use both mixed cylinders and cylinder bundles complying with sections 6.2.2 and 6.2.4.

9. Depending how the Joint Meeting decides to handle the question raised in paragraph 6, it may also be useful to insert a corresponding note in the appropriate place for battery-wagons/battery-vehicles.
10. The other question, that of determining whether in battery-wagons/battery-vehicles the combination of cylinders, bundles of cylinders and tanks is authorized, is not touched upon here.

MEGCs

11. MEGCs may also contain cylinders or cylinder bundles as elements. MEGCs are included both in section 6.2.3 and in section 6.2.4. MEGCs containing tanks as elements and which are authorized under Chapter 6.7 or 6.8 are not concerned here.
12. Depending how the Joint Meeting decides to handle the question raised in paragraph 6, it may also be useful to insert corresponding notes in the appropriate places for MEGCs.
13. The other question, that of determining whether in MEGCs the combination of cylinders, bundles of cylinders and tanks is authorized, is not touched upon here.

Proposal

14. Insert the following note in section 6.2.2:
- “**NOTE:** In bundles of cylinders and multiple-element gas containers (MEGCs) whose elements are pressure receptacles under this section, only cylinders fulfilling the provisions of this section may be used.”
15. If the Joint Meeting accepts the combination of UN pressure receptacles and RID/ADR pressure receptacles in bundles of cylinders, battery-wagons/battery-vehicles and MEGCs, the following note should be added to 6.2.3.1.1:
- “**NOTE:** In bundles of cylinders, battery-wagons/battery-vehicles and multiple-element gas containers (MEGCs) whose elements are pressure receptacles under this section, cylinders fulfilling the provisions of section 6.2.2 or 6.2.3/6.2.4 may be used.”
16. If the Joint Meeting does not accept the combination of cylinders under 6.2.2 and 6.2.3/6.2.4 in bundles of cylinders, battery-wagons/battery-vehicles and MEGCs under section 6.2.3, the following note should be added to 6.2.3.1.1:
- “**NOTE:** In bundles of cylinders, battery-wagons/battery-vehicles and multiple-element gas containers (MEGCs) whose elements are pressure receptacles under this section, only cylinders fulfilling the provisions of this section may be used.”

17. The decision of the Joint Meeting should be submitted to the United Nations Sub-Committee of Experts so that it is brought to its attention. It should also be submitted to the standardization organizations ISO (TC 58) and CEN (TC 23) so that it can be taken into consideration when standards are developed.

Justification

Safety: Improvement of safety thanks to a legal clarification and a simpler follow-up to the provisions.

Feasibility: Simplification for users and for the authorities.

Enforcement: Enforcement is facilitated.
