



Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals

Sub-Committee of Experts on the Transport of Dangerous Goods

Sixty-second session

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Item 5 (c) of the provisional agenda

Transport of gases: miscellaneous

Updated ISO standards in Class 2

Transmitted by the International Organisation for Standardisation (ISO)*

Introduction

1. The proposals in this document concern three revised standards. The titles of the standards are:

ISO 11515:2022, Gas cylinders — Refillable composite reinforced tubes of water capacity between 450 l and 3000 l — Design, construction and testing

ISO 14246:2022, Gas cylinders — Cylinder valves — Manufacturing tests and examinations

ISO 22434:2022, Gas cylinders — Inspection and maintenance of valves

The usual arrangements have been made with the secretariat to circulate PDF copies of these documents to the experts.

Proposal 1

2. In the table in 6.2.2.1.2, in the row starting ISO 11515:2013 + Amd 1:2018 replace in the third column “Until further notice” by “Until 31 December 2030”. In the table in 6.2.2.1.2 insert the following new row after the row starting ISO 11515:2013 + Amd 1:2018:

ISO 11515:2022	Gas cylinders – Refillable composite reinforced tubes of water capacity between 450 l and 3000 l – Design, construction and testing	Until further notice
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* A/77/6 (Sect. 20), table 20.6

Justification

3. The significant changes compared to the previous edition are as follows:
- the references have been updated,
 - a resin shear strength test was added to the document and to Tables 2, 3 and 4,
 - in 8.5.10, fire resistance test, the procedure has been changed to make the test more consistent, and the criteria in 8.5.10.3 has been revised, and
 - in 8.5.15, gas cycle test, a new procedure has been added for the test to have a lower number of cycles but with a significant hold time at pressure.

Proposal 2

4. In the table in 6.2.2.3, in the row starting ISO 14246:2014 + Amd 1:2017 replace “Until further notice” by “Until 31 December 2030”. In the table in 6.2.2.3 insert the following new row after the row starting ISO 14246:2014 + Amd 1:2017:

ISO 14246:2022	Gas cylinders — Cylinder valves — Manufacturing tests and examinations	Until further notice
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Justification

5. The significant changes compared to the previous edition are as follows:
- a maximum level of hydrocarbon contamination of 220 mg/m² and a maximum particle size of 200 µm has been introduced for valves for oxygen and other oxidizing gases for general purpose applications; and the mandatory reference to standard ISO 15001 has been changed to an example for medical applications,
 - a change of value of the test pressure for the 100 % leak tightness test for specific acetylene valves (fitted with a cylinder pressure gauge/content indicator) from 37 bar to 35 bar, and
 - the requirements on the verification of the assembly with regard to assembly torques has been clarified.

Proposal 3

6. In the table in 6.2.2.4, *Periodic inspection and test*, in the row starting ISO 22434:2006 replace “Until further notice” by “Until 31 December 2028”. In the table in 6.2.2.4 insert the following new row after the row starting ISO 22434:2006:

ISO 22434:2022	Gas cylinders - Inspection and maintenance of valves NOTE: These requirements may be met at times other than at the periodic inspection and test of UN cylinders	Until further notice
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Justification

7. The significant changes compared to the previous edition are as follows:
- the scope has been revised, stating that this document is applicable to valves reused at the time of the periodic inspection of gas cylinders, cylinder bundles, pressure drums and tubes, and can be applied at any other time, e.g. at a change of gas service (see standard ISO 11621),
 - the normative references have been updated,
 - the terms and definitions have been updated,

- subclauses 5.1, 5.2.2 and 5.3.2 have been modified,
 - clause 6 “Testing” has been moved to 5.4 and has been modified,
 - marking requirements have been modified, and
 - the bibliography has been updated.
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