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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

Fifty-third session
Geneva, 25 June-4 July 2018
Item 5 (b) of the provisional agenda
Transport of gases: miscellaneous

New and updated ISO standards in Class 2

Transmitted by the International Organisation for Standardisation (ISO)*

Introduction

1. These proposals concern five standards of which three are new standards, one is a revised standard and one is an amendment.

The titles of the standards are:

- ISO 10156:2017 Gas cylinders – Gases and gas mixtures – Determination of fire potential and oxidizing ability for the selection of cylinder valve outlets;
- ISO 11119-4:2016 Gas cylinders – Refillable composite gas cylinders – Design, construction and testing – Part 4: Fully wrapped fibre reinforced composite gas cylinders up to 150 l with load-sharing welded metallic liners.
- ISO 14246:2014 + Amd.1:2017 Gas cylinders — Cylinder valves — Manufacturing tests and examinations;
- ISO 17879:2017 Gas cylinders – Self-closing cylinder valves – Specification and type testing;
- ISO 20475:2018 Gas cylinders -- Cylinder bundles -- Periodic inspection and testing;

* In accordance with the programme of work of the Sub-Committee for 2017–2018 approved by the Committee at its eighth session (see ST/SG/AC.10/C.3/100, paragraph 98 and ST/SG/AC.10/44, para. 14).

2. The usual arrangements have been made with the Secretariat to circulate PDF copies of these documents to the Experts.

3. Also, it is proposed to delete a superseded standard for periodic inspection of acetylene cylinders.

Proposal 1

4. Replace 'ISO 10156:2010' with 'ISO 10156:2017' in the following places: 2.2.2.1 (a) (ii), in the ***NOTE*** following 2.2.2.1 (b) (iii), in 2.2.3 (a) and in 2.2.3 (d).

Justification

5. ISO 10156:1996 was referenced at least as long ago as the twelfth revised edition of the Model Regulations for the tests and calculation of flammability. The fifteenth revised edition of the Model Regulations saw the introduction of ISO 10156-2:2005 which added the methods of test and calculation for oxidising ability. These two standards were subsequently merged into ISO 10156:2010. ISO 10156:2017 updates the standard by adding a calculation method for determining the lower flammability limit of gas mixtures.

Proposal 2

6. In 6.2.2.1.1 add the following new row to the end of the table (after ISO 11119-3:2013):

ISO 11119-4: 2016	Gas cylinders – Refillable composite gas cylinders – Design, construction and testing – Part 4: Fully wrapped fibre reinforced composite gas cylinders up to 150 l with load-sharing welded metallic liners	Until further notice

Justification

7. The first three parts of the ISO 11119 series cover various designs of composite cylinders with a seamless liner. This fourth part defines the requirements for design, construction and testing of composite cylinders with a welded metallic liner. This proposal was previously included in paper ST/SG/AC.10/C.3/2017/17 presented at the fifty first session of this Sub Committee. The proposal was withdrawn for further discussion on technical issues which are all now resolved.

Proposal 3

8. In 6.2.2.3 in the row starting ISO 14246:2014 replace 'Until further notice' with 'Until 31 December 2024'. Insert a new row beneath this row as follows:

ISO 14246:2014 + Amd 1:2017	Gas cylinders – Cylinder valves – Manufacturing tests and examinations	Until further notice

Justification

9. This is a short amendment specifying the pressures to be used in the pressure test and leakproofness test of acetylene valves.

Proposal 4

10. In 4.1.6.1.8 after the paragraph starting 'For pressure receptacles with valves …' and ending '…annex A of ISO10297:2014 shall be met.' Insert a new paragraph as follows:

> "For pressure receptacles with self-closing valves with inherent protection, the requirements of annex A of ISO 17879:2017 shall be met."

11. In the table in 6.2.2.3 add a new row at the end as follows:

ISO 17879:2017	Gas cylinders – Self-closing cylinder valves – Specification and type testing	Until further notice

Justification

12. ISO 17879:2017 is a new standard for self-closing valves which are used for calibration gases and gases used in the beverage industry although they may be found in other applications such as medical gases. It is not applicable to liquefied petroleum gases.

Proposal 5

13. In 6.2.2.4 add a new row at the end of the first table immediately after the row starting ISO 22434:2006 as follows.

ISO 20475:2018	Gas cylinders – Cylinder bundles – Periodic inspection and testing	Until further notice

Justification

14. The standard ISO 10961:2010, which gives the requirements for the design, construction and initial inspection and test for bundles of cylinders, has been in the Model Regulations since the 18th revision but there has been no detailed procedure for their periodic inspection and test. The standard ISO 20475 provides this detailed procedure. As well as covering periodic inspection, the standard also establishes general principles for the maintenance of bundles of cylinders.

Proposal 6

Justification

15. In 6.2.2.4 delete the row for ISO 10462:2005.

16. ISO 10462:2005 Gas cylinders – Transportable cylinders for dissolved acetylene – Periodic inspection and maintenance, is no longer applicable after the end of 2018 and this reference should be deleted from the table in 6.2.2.4.