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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-eighth session**

Geneva, 28 June-2 July 2021

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 one revised standard and two amended standards. The fourth proposal concerns a standard already referenced in 6.2.2.1.9, but the reference in PP89 needs updating. The titles of the standards are:

ISO 11114-1:2020 Gas cylinders — Compatibility of cylinder and valve materials with gas contents — Part 1: Metallic materials

ISO 16148:2016 + Amd 1:2020 Gas cylinders — Refillable seamless steel gas cylinders and tubes — Acoustic emission examination (AT) and follow-up ultrasonic examination (UT) for periodic inspection and testing — Amendment 1

ISO 13088:2011 + Amd 1:2020 Gas cylinders — Acetylene cylinder bundles — Filling conditions and filling inspection — Amendment 1

ISO 11118:2015 + Amd 1:2019 Gas cylinders — Non-refillable metallic gas cylinders — Specification and test methods — Amendment 1

**Proposal 1**

2. In 3.1.1 SP 379, 4.1.6.1.2, 6.2.2.2 and 6.7.5.2.4 (a) replace “ISO 11114-1:2012 + A1:2017” by “ISO 11114-1:2020” and in 6.2.2.7.4 (p) and 6.2.2.9.2 (j) replace “ISO 11114-1:2012” by “ISO 11114-1:2020”.

**Justification**

3. The significant changes compared to the previous edition are as follows:

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\* A/75/6 (Sect.20), para. 20.51

- (a) Clarification of the definition of “dry”;
- (b) Clarification in the table of compatibility, for example with the addition of the compatibility requirements for nickel alloys with carbon monoxide;
- (c) Various editorial improvements including updating references and incorporating Amendment 1.

## **Proposal 2**

- 4. In 6.2.1.6.1 (d), Note 2 replace “ISO 16148:2011” by “ISO 16148:2011 + Amd.1:2020”.

### **Justification**

- 5. This amendment makes a significant correction of Note 2 to figure A.1 concerning the calculation of the depth of the notches used for calibration.

## **Proposal 3**

- 6. In 4.1.4.1 P200 (4) replace “ISO 13088:2011” by “ISO 13088:2011 + Amd.1:2020”.

### **Justification**

- 7. This standard concerns filling conditions and filling inspection of acetylene cylinder bundles. Acetylene is dissolved in a solvent in the cylinder, either acetone or dimethylformamide (DMF), and the quantity of solvent shall be checked at each filling. Acetone is very volatile and the quantity of solvent in each cylinder shall be checked by dismantling the bundle every so often, typically after no more than six fillings. DMF is much less volatile and the standards required dismantling of the bundle at about 100 fillings. In practice, dismantling for periodic inspection occurred well before 100 fillings, so dismantling for solvent checks never occurred. This amendment removes the requirement for counting fillings of bundles of acetylene cylinders using DMF, since this was an unnecessary administrative burden.

## **Proposal 4**

- 8. In 4.1.4.1 P205 PP89 replace “ISO 11118:1999” by “clause 1 of ISO 11118:2015 + Amd 1:2019”.

### **Justification**

- 9. ISO 11118:1999 was superseded in 2015 and then amended in 2019. The current standard is already referenced in 6.2.1.1.9, but PP89 has not followed these changes. The 1999 standard is now hard to obtain so it is sensible to update the reference. The capacity and pressure limitations referred to in PP89 all occur in clause 1; the scope of all editions and the requirements have not changed. Therefore, this proposal makes no technical change, it simply makes the requirements more readily accessible.

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