



---

**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****Sub-Committee of Experts on the Globally Harmonized  
System of Classification and Labelling of Chemicals****Thirty-fifth session**

Geneva, 4-6 July 2018

Item 2 of the provisional agenda

**Joint work with the Sub-Committee of Experts on the  
Transport of Dangerous Goods (TDG Sub-Committee)****Update of reference to ISO 10156 in the Model Regulations  
and in the Globally Harmonized System of Classification and  
Labelling of Chemicals (GHS)****Transmitted by the European Industrial Gases Association (EIGA)\*****Introduction**

1. The standard ISO 1056:2010 "Gas cylinders - Gases and gas mixtures - Determination of fire potential and oxidizing ability for the selection of cylinder valve outlets" is a reference document in Chapter 2.2 (Class 2: Gases) of the Model Regulations and in chapters 2.2 (Flammable gases) and 2.4 (Oxidising gases) of the GHS.
2. As part of the 5-yearly periodic review of all standards, ISO 1056:2010 has been reviewed and a new revision ISO 10156:2017 was published in September 2017.
3. Apart from some editorial changes to suit the ISO publication rules, there is no change compared to the 2010 version with regard to the test method to determine the low flammability limits (Li) of flammable gases and vapours including mixtures and the calculation method to determine if gas mixtures containing flammable gases and vapours should be considered as non-flammable. The tables with Li and Tci values are unchanged from the 2010 version and the calculation examples in 2.2.5 and 2.4.4.2 of the GHS remain valid.

---

\* 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, paragraph 14).

4. On the other hand, the standard has been supplemented with:
  - (a) a test method to determine the flammability limits of gases and gas mixtures in air;
  - (b) a calculation method to determine the lower flammability limit of a gas mixture. This additional calculation method is needed to distinguish a flammable gas, Category 1A from a flammable gas, Category 1B, in accordance with the new GHS criteria.

## Proposals

5. In the Model Regulations, Chapter 2.2, paragraphs 2.2.3 (a) and 2.2.3 (d):  
Replace “ISO 10156:2010” with “ISO 10156:2017”
  6. In the GHS, Chapter 2.2, paragraphs 2.2.4.2.1, 2.2.4.2.4 and 2.2.5, and in Chapter 2.4, paragraphs 2.4.4.1 and 2.4.4.2:  
Replace “ISO 10156:2010” with “ISO 10156:2017”.
-