

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

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Item 5 (b) of the provisional agenda

Transport of gases: miscellaneous

Comments on ST/SG/AC.10/C.3/2015/39 – Insertion of new and revised ISO standards in 6.2.2

Transmitted by the Expert from Canada

Introduction

1. In ST/SG/AC.10/C.3/2015/39, the International Organisation for Standardisation (ISO) proposes the introduction of two revised ISO standards and one new ISO standard into 6.2.2 of the Model Regulations.
2. Canada supports proposal 1 in ST/SG/AC.10/C.3/2015/39, to amend the entry for ISO 11118:1999 and to add a new row for ISO 11118:2015 in the table in 6.2.2.1.1.
3. Canada supports proposal 2 in ST/SG/AC.10/C.3/2015/39, to amend the entry for ISO 11120:1999 and to add a new row for ISO 11120:2015 in the table in 6.2.2.1.1.
4. Canada supports in principle proposal 3 in ST/SG/AC.10/C.3/2015/39 and would like to propose a modification. This is discussed below.

Discussion of proposal 3

5. In paragraph 6 of ST/SG/AC.10/C.3/2015/39, ISO proposes to add a new reference to ISO 21172-1:2015 by adding the following new paragraph 6.2.2.1.8 and new table:

6.2.2.1.8 The following standard applies for the design, construction and initial inspection and test of UN pressure drums, except that inspection requirements related to the conformity assessment system and approval shall be in accordance with 6.2.2.5:

Reference	Title	Applicable for Manufacture
ISO 21172-1:2015	Gas cylinders – Welded steel pressure drums up to 3 000 litres capacity for the transport of gases – Design and construction – Part 1: Capacities up to 1 000 litres	Until further notice

6. Canada supports in principle adopting ISO 21172-1:2015 in the Model Regulations as this will address the long-standing need for pressure drum requirements. However, ISO 21172-1:2015 contains a restriction on pressure drums with dished ends convex to pressure (inverted heads). Specifically, section 6.3.3.4 of ISO 21172-1:2015 prohibits the use of pressure drums with dished ends convex to pressure for corrosive substances. This

prohibition is not aligned with North American practice, is clearly against one of the key principles of the ISO policy on global relevance (i.e., not to give preference to the requirements of specific countries or regions when different needs or interests exist in other countries or regions) and thus not acceptable to Canada.

7. ISO 21172-1:2015 is a design and construction standard and should not contain gas specific use provisions. The use restriction in section 6.3.3.4 of ISO 21172-1 clearly falls outside the specified scope of the standard. Should such a restriction be warranted, it should be specified in packing instruction P200 of the UN Model Regulations.

8. Pressure drums, commonly referred to as ton tanks, ton containers, or multi-unit tank car tanks, with dished ends convex to pressure, have been used in corrosive gas service in North America since 1936. These means of containment have an exemplary safety record when inspected and tested at the prescribed frequency. Such containers are used typically in chlorine and sulphur dioxide gas service. A picture of a chlorine ton container (TC Specification 106A500X) is shown below for illustration purposes:



The inverted heads are a safety feature – if a tank is accidentally over-pressurized, the head will reverse or push out, providing an immediate visual indication of over pressurization.

9. The draft ISO standard (ISO/DIS 21172-1) contained the following statement in section 7.3.3.4:

“WARNING NOTE Care should be taken when dished ends convex to pressure are used in potentially corrosive service.”

The warning note was amended to an actual restriction in section 6.3.3.4 of ISO/FDIS 21172-1 based on a proposed change submitted by an ISO member body during the ISO/DIS 21172-1 ballot. Although Canada strongly disagreed with the proposal to change the note to a restriction, the consensus of the working group (WG23 of ISO/TC 58/SC 3) was to accept it.

Proposed modification to proposal 3

10. Canada proposes to add the following text following the title of the new standard in the new proposed table:

***NOTE:** Irrespective section 6.3.3.4 of this standard, welded steel gas pressure drums with dished ends convex to pressure may be used for the transport of corrosive substances provided all applicable requirements of these Regulations are met.*