

## 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

25 November 2015

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Item 5 (b) of the provisional agenda

Transport of gases: miscellaneous

## Comments on UN/SCETDG/48/INF.4 – Provisions for closures of pressure receptacles

Transmitted by the Compressed Gas Association (CGA)

### Introduction

1. In informal document INF.4 (48<sup>th</sup> session), the European Industrial Gases Association (EIGA) gives advance notice that a formal document will be presented at the next forty-ninth session, proposing amendments to the UN Model Regulations based on the work of a European RID/ADR/ADN working group established to address:

- (a) Clarification of the meaning of the term “pressure receptacle” to include or exclude their closures; and
- (b) Investigation of the completeness of requirements on the design, conformity assessment, and marking of closures of pressure receptacles.

2. As described in paragraph 5 of informal document INF.4 (48<sup>th</sup> session), the proposals also address a number of other items related to pressure receptacles, in addition to their closures.

3. CGA has many comments on the proposed text in the Annex of informal document INF.4 (48<sup>th</sup> session). These detailed comments will be provided at a later time, since it is stated in informal document INF.4 (48<sup>th</sup> session) that the Annex is not intended for detailed study at this time. For the time being, CGA would like to highlight the following issues and provide some initial general comments.

### Comments regarding conformity assessment of closures

4. CGA has concerns regarding the new proposal for conformity assessment system and related marking requirements for closures (e.g. valves, pressure relief devices, regulators) for UN pressure receptacles.

5. In 6.2.2.5.1 of the Model Regulations, “conformity assessment system” is defined as “a system for competent authority approval of a manufacturer, by pressure receptacle design type approval, approval of manufacturer’s quality system, and approval of inspection bodies”.

6. In informal document INF.4 (48<sup>th</sup> session), paragraph 5(a), it is proposed that the term “pressure receptacle” would include the closures. In Proposal 3 in the Annex of UN/SCETDG/48/INF.4, it is proposed to add a note under 6.2.2.5.1 stating, “**NOTE:** When separate conformity assessment is used (see 6.2.1.4.3), references to pressure receptacle in

6.2.2.5 shall mean either pressure receptacle shell or closure as appropriate.” This implies that closures (e.g. valves, pressure-relief devices, regulators) for UN pressure receptacles would be required to have competent authority approval.

7. A competent authority approval system for valves and other pressure receptacle closures is in place in the European Union under the Transportable Pressure Equipment Directive (TPED), as well as in some countries in Asia. However, competent authority approval systems for pressure receptacle closures do not currently exist in North America or in some other parts of the world.

8. In the original development of the UN requirements for pressure receptacles, there was a deliberate decision only to address competent authority approval of the UN pressure receptacle body, and not the closures. The conformity assessment system and approval requirements for manufacture of UN pressure receptacles in 6.2.2.5 of the Model Regulations are largely based on ISO/TR 14600:2000, *Gas cylinders — International quality conformance system — Basic rules*, which was developed taking into account the various systems put in place globally by regulatory authorities for approval of gas cylinder designs and manufacturing.

9. CGA would like respectfully to enquire regarding what is the impetus for this new proposed competent authority approval system for UN pressure receptacle closures? Have there been any safety events?

10. CGA would also like respectfully to enquire, for countries or regions where a competent authority approval system for pressure receptacle closures (e.g. valves, pressure relief devices, regulators) does not currently exist, would the competent authorities be prepared to put such a system in place?

11. CGA is concerned that, if requirements for a competent authority approval system for UN pressure receptacle closures is added in the Model Regulations, but it is not implemented widely by competent authorities, it would create additional barriers for global transport. There is already only limited use of UN pressure receptacles, due to current issues regarding recognition of approvals.

12. In addition, by including closures within the definition of “pressure receptacle”, it seems to imply that UN pressure receptacles must have closures meeting an ISO standard adopted in 6.2.2.3 of the Model Regulations. However, there are gaps in 6.2.2.3, and there is not necessarily a complete library of applicable ISO standards to adopt for UN pressure receptacle closures. In some cases, there may be a necessity to use a type of valve, pressure relief device, or regulator in conformance with a national or regional standard not listed in 6.2.2.3.

## **Other initial comments**

12. CGA could agree to some review of the text in the Model Regulations for clarification of the pressure receptacle requirements. However, CGA has some other initial concerns regarding some of the proposals in informal document INF.4 (48<sup>th</sup> session).

13. In Proposal 1 in the Annex of informal document INF.4 (48<sup>th</sup> session), it is proposed to add a new definition for “service equipment”. This term is used in industry, and CGA believes that it should be used to describe only accessories or components that are not part of the specified containment system. For example, “service equipment” should not include the porous material of acetylene cylinders, the absorbent material of metal hydride storage systems, nor manifolds that are part of a bundle of cylinders, when they are part of an approved pressure receptacle design.

14. The proposed amendments described in informal document INF.4 (48<sup>th</sup> session), paragraph 5(b), regarding “cryogenic receptacles” seem to be based on the text from the European ADR, rather than the UN Model Regulations. There seems to be an error in the ADR definition for “cryogenic receptacle”, which includes the term “pressure receptacle”. In accordance with the UN Model Regulations, the definition for “cryogenic receptacle” includes the term “receptacle” rather than “pressure receptacle”, since open cryogenic receptacles are not pressure receptacles, although closed cryogenic receptacles are pressure receptacles.

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