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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

Thirty-third session
Geneva, 30 June-9 July (a.m.) 2008
Item 7 of the provisional agenda

**MISCELLANEOUS PROPOSALS OF AMENDMENTS TO THE MODEL REGULATIONS
ON THE TRANSPORT OF DANGEROUS GOODS**

4.1.4.1, Packing Instruction P200 (4), Special packing provisions “k”

Transmitted by the European Industrial Gases Association (EIGA)*

Introduction

1. The UN Model Regulations 4.1.4.1 Packing Instruction P200 (4) lists under “k” “Requirements for toxic substances with an LC_{50} less than or equal to 200 ml/m³ (ppm)” the following 7th paragraph: “Each valve shall have a taper threaded connection directly to the pressure receptacle and be capable of withstanding the test pressure of the pressure receptacle”.
2. This is referring to the connection between the valve and the pressure receptacle
3. This tapered thread system of connecting gas cylinders and cylinder valves has been common practice for many years and continues to be used. However, this technology is not

* In accordance with the programme of work of the Sub-Committee for 2007-2008 approved by the Committee at its third session (refer to ST/SG/AC.10/C.3/60 para. 100 and ST/SG/AC.10/C.3/34, para. 14)

always suitable for some gases which are used in some microelectronics applications. These applications require that the gas be almost completely free of particles which can be generated by the fitting of the valve to a cylinder if a tapered thread connection is used.

4. Due to this requirement to minimise the number of microscopic particles in cylinders in these applications, ISO Standard 10692 “Gas cylinders - Gas cylinder valve connections for use in the micro-electronics industry” was written. Part 2 of this ISO Standard specifies a test sequence and acceptability criteria for connections between gas cylinders and valves for gases and gas mixtures used under special conditions of service where the highest levels of cleanliness and/or freedom from particles are demanded. It specifies a mandatory type test programme to ensure the safety of the valve to cylinder connection.

5. A typical valve to cylinder connection system is shown below in Fig 1, and consists of an externally threaded cylinder and special nut and cylinder valve.

Proposal

6. The proposal is to modify Packing Instruction P200 item (4) Special packing provisions “k”, paragraph 7 such that cylinder/valve combinations in accordance with ISO 10692-2 may be permitted.

7. The proposed sentence will read as follows:

“Each valve shall be capable of withstanding the test pressure of the pressure receptacle and be connected directly to the pressure receptacle by either a taper thread or other means which meets the requirements of ISO 10692-2:2001.”

Justification

8. The proposal is taking into account the increased requirements of gas cleanliness for new developments of the electronic industry keeping the safety level of the pressure receptacle.

Safety

9. No safety related issues are foreseen as this system is already in service.

Feasibility

10. There is no problem foreseen as cylinder to valve combinations in accordance with ISO Standard 10692 have been in service for a number of years without any report issues.

Enforcement

11. No difficulties in enforcement are foreseen

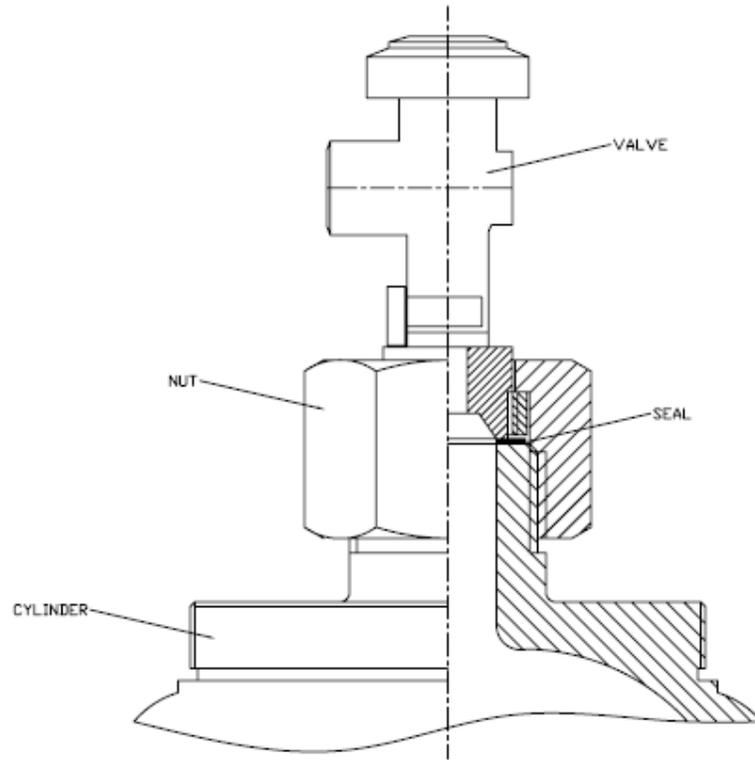


Fig. 1 Example of an externally threaded cylinder connection
