
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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TRANSPORT OF GASES

Proposal to rationalise the language used for groups of cylinders within bundles and MEGCs

Following the plenary discussion on paper ST/SG/AC.10/C.3/2005/26, informal consultations between representatives of Belgium, CGA, EIGA, Germany, UK and USA have resulted in the proposal below. The proposal is that the words “group of cylinders” or “group of elements” should be used and the reasons are briefly:

- “assembly” is confusing because bundles and MEGCs are themselves defined as assemblies;
- “sub-assemblies” might lead to the inference that bundles and MEGCs were composed of a collection of smaller bundles or MEGCs. Also, the word “sub-assemblies” already appears in 6.7.5.3.1 (also in 6.7.2.5.1, and 6.7.3.5.1) where its meaning is not limited to a group of elements;
- “group of elements” already appears in 6.7.5.4.2 and the meaning is clear.

PROPOSAL

P200 extracts

- k: Valve outlets shall be fitted with gas tight plugs or caps which shall be made of material not liable to attack by the contents of the pressure receptacle.

Each cylinder within a bundle shall be fitted with an individual valve that shall be closed during transport. After filling, the manifold shall be evacuated, purged and plugged.

Bundles containing UN 1045 Fluorine, compressed, may be constructed with isolation valves on **assemblies** (groups) of cylinders not exceeding 150 litres total water capacity instead of isolation valves on every cylinder.

Remainder of 'k' unchanged

- n: Cylinders and individual cylinders in a bundle shall contain not more than 5 kg of the gas. When bundles containing UN 1045 Fluorine, compressed ~~may be~~ are divided into **assemblies** (groups) of cylinders (~~see~~ in accordance with special packing provision 'k') ~~and such each group assemblies~~ shall contain not more than 5 kg of the gas.

Construction requirements for MEGCs

6.7.5.3.2 Each element intended for the transport of gases of Division 2.3 shall be fitted with a valve. The manifold for liquefied gases of Division 2.3 shall be so designed that the elements can be filled separately and be kept isolated by a valve capable of being sealed. For the transport of gases of Division 2.1, the elements shall be ~~isolated by a valve~~ divided into assemblies groups of not more than 3000 litres each isolated by a valve.

6.7.5.4 Pressure-relief devices

6.7.5.4.1 The elements of MEGCs used for the transport of UN 1013 carbon dioxide and UN 1070 nitrous oxide shall be isolated by a valve into assemblies groups of not more than 3000 litres. Each assembly group shall be fitted with one or more pressure relief devices. MEGCs for other gases shall be fitted with pressure relief devices as specified by the competent authority for the country of use.

6.7.5.4.2 When pressure relief devices are fitted, every element or group of elements of an MEGC that can be isolated shall then be fitted with one or more pressure relief devices. Pressure relief devices shall be of a type that will resist dynamic forces including liquid surge and shall be designed to prevent the entry of foreign matter, the leakage of gas and the development of any dangerous excess pressure.

TEXT FOR REFERENCE ONLY

Definitions

Bundle of cylinders means an assembly of cylinders that are fastened together and which are interconnected by a manifold and transported as a unit. The total water capacity shall not exceed 3000 litres except that bundles intended for the transport of gases of Division 2.3 shall be limited to 1000 litres water capacity;

Multiple-element gas container (MEGC) means a multimodal assembly of cylinders, tubes and bundles of cylinders which are interconnected by a manifold and which are assembled within a framework. The MEGC includes service equipment and structural equipment necessary for the transport of gases;
