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 **26 November 2013**

Forty-fourth session
Geneva, 25 November – 4 December 2013
Item 2 (c) of the provisional agenda
Listing, classification and packing: miscellaneous

Introduction of provisions for the transport of adsorbed or absorbed ammonia storage systems

Transmitted by the expert from France

Revised Proposals including amendments from the Sub committee

9. ***Proposal 1***: add a new special provision xxx in chapter 3.3 as follows:

"xxx

Anhydrous ammonia adsorbed or absorbed on a solid contained in ammonia dispensing systems or receptacles intended to form part of such systems shall not be subject to the other provisions of these Regulations if the following conditions are observed:

(a) The adsorption or absorption presents the following ~~solidity~~ properties:

(i) The pressure at a~~n even~~ temperature of 20° C in the receptacle is less than 0.6 bar;

(ii) The pressure at a~~n even~~ temperature of 35° C in the receptacle is less than 1 bar;

(iii) The pressure at a~~n even~~ temperature of 100° C in the receptacle is less than 15 bar.

(b) The adsorbent or absorbent material~~support substance~~ should not have dangerous properties listed in Classes 1 to 8;

(c) The maximum contents of a receptacle shall be 10~~7~~ kg of ammonia; and

(d) Receptacles containing adsorbed ammonia must meet the following conditions:

(i) Receptacles shall be made of a material compatible with ammonia as specified in ISO 11114/1: 2012~~stainless steel~~;

(ii) Receptacles and their means of closure shall be hermetically sealed and able to contain the generated ammonia;

(iii) Each receptacle shall be able to withstand the pressure generated at 85° C with a volumetric expansion ~~deformation~~ no greater than 0.1%;

(iv) Each receptacle shall be fitted with a device that allows for gas evacuation once pressure exceeds 15 bar without violent rupture, explosion or projection; and

(v) Each receptacle shall be able to withstand pressure of 20 bar without leakage when the pressure relief device is deactivated.

When carried in an ammonia dispenser, the receptacles shall be connected to the dispenser in such a way that the assembly is guaranteed to have the same strength as a single receptacle.

The properties of mechanical strength mentioned in this special provision shall be tested using a prototype of a receptacle and/or dispenser filled to nominal capacity, by increasing the temperature until the specified pressures are reached.

The test results shall be documented shall be traceable and shall be communicated to the relevant authorities upon request."

. ***Proposal 2***: add the new special provision xxx in Column (6) of the list of dangerous goods in chapter 3.2 for UN Nos. 1005 AMMONIA, ANHYDROUS and 3516~~2~~ ADSORBED GAS, TOXIC N.O.S.