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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-seventh session**

Geneva, 21–30 June 2010

Item 5 of the provisional agenda

**Miscellaneous proposals of amendments to the Model Regulations  
on the Transport of Dangerous Goods****Salvage pressure receptacles****Transmitted by the experts from Germany and United Kingdom<sup>1</sup>****Introduction**

1. For salvage packagings, suitable provisions exist in 4.1.1.17 and Chapter 6.1 of the Model Regulations including marking in 6.1.3.12. Although the definition of a salvage packaging in 1.2.1 may also cover salvage pressure receptacles, for the latter no specific provisions exist in 4.1.1.17 and Chapter 6.2. The expert from Germany submitted proposals for inclusion of some requirements for salvage pressure receptacles at the last sessions of the Sub-Committee (document ST/SG/AC.10/C.3/2009/16 and document ST/SG/AC.10/C.3/2009/16/Rev.1). Comments were presented in two informal documents by the expert from United Kingdom (ST/SCETDG/36/INF.21) and by the Compressed Gas Association (CGA). Several experts noted that the information contained in the informal documents were relatively extensive, and that since they had been submitted late it had been impossible to hold proper prior discussions on them at the national level. Therefore the Sub-Committee decided to defer discussion until the next session. The submitted documents would be discussed by a working group that would meet in parallel during the session.

2. The intention of this joint proposal is to provide a text as a starting point for the working group. The previous German proposals were limited to gases covered by table 1 and table 2 of P 200, but this proposal has an extended scope and covers all substances which may be transported in pressure receptacles as proposed by the expert from United Kingdom.

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<sup>1</sup> In accordance with the programme of work of the Sub-Committee for 2009-2010 approved by the Committee at its fourth session (refer to ST/SG/AC.10/C.3/68 para. 118(b) and ST/SG/AC.10/36, para. 14).

3. The proposal does not address detailed technical requirements on the specific types of salvage pressure receptacles, as they may vary widely in design specifications and derogations from some technical requirements of Chapter 6.2. Only some general technical requirements are proposed to give guidance to the competent authority for the approval of salvage pressure receptacles. Regarding the necessity for the use of salvage pressure receptacles it is referred to the previous proposals.

## Proposal

Note: New text for the Model Regulation is underlined.

4. Add to 1.2.1 :

“Salvage pressure receptacle means a special pressure receptacle into which are placed damaged, defective, leaking or non-conforming pressure receptacle with a water capacity not exceeding 1000 l for the purpose of transport e.g. for recovery or disposal.”.

5. Insert a reference to salvage pressure receptacles in the definition of pressure receptacles in 1.2.1 to read :

“Pressure receptacle is a collective term that includes cylinders, tubes, pressure drums, closed cryogenic receptacles, bundles of cylinders and salvage pressure receptacles”.

6. Amend the heading of 4.1.1.17 to read :

“Use of salvage packagings and salvage pressure receptacles”.

7. Add paragraphs 4.1.1.17.4 to 4.1.1.17.8 as follows :

“4.1.1.17.4 In case of damaged, defective, leaking or non conforming or not fully complying pressure receptacles, salvage pressure receptacles according to 6.2.3 may be used. Salvage pressure receptacles should not be used for the transport of pressure receptacles, which without any doubt fully comply with the provisions.”.

4.1.1.17.5 Pressure receptacles shall be placed in salvage pressure receptacles of suitable size. More than one pressure receptacle may only be placed in the same salvage pressure receptacle, if the identity of the gases is known and if the gases contained do not react dangerously with each other (see 4.1.1.6). Appropriate measures shall be taken to prevent excessive movement of the pressure receptacles within the salvage pressure receptacle e.g. by adding appropriate means for partitioning, securing and cushioning. Damaged parts shall be carefully protected against contact with the body of the salvage pressure receptacle.

4.1.1.17.6 A pressure receptacle may only be placed in a salvage pressure receptacle if:

(a) Authorized in the approval certificate;

(b) Parts of the salvage pressure receptacle which are, or are likely to be in direct contact with the dangerous goods shall not be affected or weakened by those dangerous goods and shall not cause a dangerous effect (e.g. catalyzing reaction or reacting with the dangerous goods); and

(c) When gas is transported the salvage pressure receptacle meets the requirements for pressure and tightness as laid down for the gas in packing instruction P 200 table 1 or 2.

4.1.1.17.7 If the dangerous goods in the damaged pressure receptacle are classified as division flammable, toxic or corrosive, appropriate personal protective equipment shall be used during the packing and unpacking process.

4.1.1.17.8 All labels required for the dangerous goods inside the damaged pressure receptacle shall be applied to the salvage pressure receptacle for transport.

8. Insert a reference to salvage pressure receptacles in 5.2.1.3 in order to read:  
 “Salvage packagings and salvage pressure receptacles shall additionally be marked with the word “SALVAGE”.”.
9. Amend 5.4.1.5.3 to read :  
 “For dangerous goods transported in salvage packagings or salvage pressure receptacles, the words “SALVAGE PACKAGING” or “SALVAGE PRESSURE RECEPTACLE” shall be included. In case of salvage pressure receptacles, the consignor shall provide a copy of the approval of the competent authority of the country having granted the approval either with the salvage pressure receptacle or added to the transport document. He shall further provide instructions on the safe operation of such devices to users.”.
10. Insert a reference to salvage pressure receptacles in 6.2.3.3 to read: “For metallic cylinders, tubes, pressure drums, bundles of cylinders and salvage pressure receptacles, the construction shall be such that the minimum burst ratio (burst pressure divided by test pressure) is: (...)” (remainder unchanged).
11. Insert new paragraph 6.2.3.5 to read :  
“6.2.3.5 Salvage pressure receptacles  
The water capacity of a salvage pressure receptacle may exceed 1 000 l to the extent necessary for the transport of pressure receptacles with a water capacity of up to 1000 l. To permit the safe handling and disposal of the pressure vessels carried within, the design may include special equipment otherwise not used for cylinders or pressure drums like flat heads, quick opening devices and openings in the cylindrical part. These deviations – including alternative measures imposed – and instructions on the safe handling of such devices shall be clearly shown in the documentation for the application to the competent authority and shall form part of the approval.  
In the approval certificate, the pressure receptacles authorized to be transported in a salvage pressure receptacle shall be clearly indicated. A list of the materials of construction of all parts likely to be in contact with the dangerous goods shall also be included. A copy of the approval shall be delivered by the manufacturer to any user of a salvage pressure receptacle.  
The marking of salvage pressure receptacles according to 6.2.3 shall be determined by the competent authority in taking into account suitable marking provisions of 6.2.2.7 as appropriate. In addition, the marking shall include the maximum usable volume or water capacity of pressure vessels (e.g. receptacles) and the maximum permissible test pressure of pressure receptacles that are authorized to be transported inside the salvage pressure receptacle.”.
12. Add a note with a transitional provision to 6.2.3.5 to read :  
 “Note: These provisions for salvage pressure receptacles may be applied for new salvage pressure receptacles from 1 January 2013, unless otherwise authorized, and shall be applied for all new salvage pressure receptacles from 1 January 2014. Salvage pressure receptacles being used as approved by the competent authority before 1 January 2014 may continue to be used as determined by that authority.”.