



**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-ninth session**

Geneva, 20–24 June 2011

Item 3 (c) of the provisional agenda

Listing, classification and packing: miscellaneous**Packing Instruction P 602****Transmitted by the Dangerous Goods Advisory Council¹**

1. The reclassification of certain materials as Division 6.1 Packing Group I substances and the consequent application of packing instruction P 602 (based on ST/SG/AC.10/C.3/2008/87) has created some practical difficulties in relation to packaging practices for some of these materials. Many of these substances were previously authorized for transport in accordance with P 001 while at the same time being subject to more stringent packing requirements under United States of America regulations. These United States packaging requirements still apply in the case of transport involving the United States. The packagings required under United States regulations easily met P 001. Regrettably, the provisions in P 602 differ somewhat from the provisions in United States regulations. As such the packagings, including extensive inventories of reusable packagings, may only be transported internationally under the alternative packaging provisions in 4.1.3.7 which includes approval by the competent authority.

2. Consistent with the note to 4.1.3.7, DGAC proposes to amend P 602, as the competent authority is asked to do when such alternative packagings are authorized.

Background

3. The detailed requirements for the packaging described in United States regulations are shown in the annex to this document for information. The packaging requirements in P 602(2) are similar, except that under the US requirements the substance:

¹ In accordance with the programme of work of the Sub-Committee for 2011-2012 approved by the Committee at its fifth session (refer to ST/SG/AC.10/C.3/76, para. 116 and ST/SG/AC.10/38, para. 16).

- Is first put into an impact resistant receptacle of glass, earthenware, plastic or metal;
 - The receptacle is securely cushioned inside a leak tight metal or **plastic** packaging subjected to performance testing as if it were a PG I single packaging; and
 - The capacity of each receptacle is limited to 4 L.
4. While the United States regulations include additional requirements, for purposes of P 602, it important to note the United States packaging would be permitted under P 602 (2) if the material were first permitted to be in an impact resistant inner receptacle surrounded by cushioning material before placement in a **plastic** or metal inner packaging described in P602(2).

Proposal

5. DGAC proposes to revise P 602(2) to authorize packages described under US regulations and in so doing eliminate the need for transport under alternative packaging requirements, as follows:

“(2) Combination packagings consisting of metal **or plastic** inner packagings individually packed with absorbent material sufficient to absorb the contents and inert cushioning material in 1A2, 1B2, 1N2, 1H2, 1D, 1G, 4A, 4B, 4C1, 4C2, 4D, 4F, 4G or 4H2 outer packagings with a maximum gross mass of 75 kg. Inner packagings shall not be filled to more than 90% of their capacity. The closure of each inner packaging shall be physically held in place by any means capable of preventing back-off or loosening of the closure by impact or vibration during transport. Inner packagings shall not exceed 5 litres in capacity. **Alternatively, the substance may first be contained in an impact resistant glass or plastic inner receptacle in compliance with the described closure requirements and surrounded with required absorbent and cushioning material before being placed in the metal or plastic inner packaging.**”

6. DGAC proposes a similar amendment to P 601 (2) for purposes of consistency.
7. To facilitate transportation until these provisions are formally included in the transport regulations worldwide, DGAC requests that the Subcommittee note in the report that provision of an additional supplementary packaging (i.e., the glass or plastic receptacle) does not represent non compliance with the present packing instruction.

Annex

US Packaging requirement for substances assigned to UN P 601 and 602

(c) In combination packagings, consisting of an inner packaging system and an outer packaging, as follows:

(1) Outer packagings:

Steel drum: 1A2

Aluminum drum: 1B2

Metal drum, other than steel or aluminum: 1N2

Plywood drum: 1D

Fiber drum: 1G

Plastic drum: 1H2

Steel box: 4A

Aluminum box: 4B

Natural wood box: 4C1 or 4C2

Plywood box: 4D

Reconstituted wood box: 4F

Fiberboard box: 4G

Expanded plastic box: 4H2

Solid plastic box: 4H2

(2) Inner packaging system. The inner packaging system consists of two packagings:

(i) an impact-resistant receptacle of glass, earthenware, plastic or metal securely cushioned with a non-reactive, absorbent material, and

(A) Capacity of each inner receptacle may not exceed 4 L (1 gallon).

(B) An inner receptacle that has a closure must have a closure which is physically held in place by any means capable of preventing back-off or loosening of the closure by impact or vibration during transportation.

(ii) Packed within a leak-tight packaging of metal or plastic.

(iii) This combination packaging in turn is packed within the outer packaging.

(3) Additional requirements:

(i) The total amount of liquid contained in the outer packaging must not exceed 16 L (4 gallons).

(ii) The inner packaging system must conform to the performance test requirements of subpart M of part 178 of this subchapter, at the Packaging Group I performance level when subjected to the following tests:

(A) §178.603—Drop Test

- (B) §178.604—Leakproofness Test
 - (C) §178.605—Hydrostatic Pressure Test
 - (iii) The inner packaging system must meet the above tests without the benefit of the outer packaging.
 - (iv) The leakproofness and hydrostatic pressure test may be conducted on either the inner receptacle or the outer packaging of the inner packaging system.
 - (v) The outer package must conform to the performance test requirements of subpart M of part 178 of this subchapter, at the Packaging Group I performance level as applicable for the type of package being used.
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