



**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****Fifty-seventh session**

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Item 2 (e) of the provisional agenda

Explosives and related matters:**review of packing instructions for explosives****Clarification on the applicability of PP70 in packing
instruction P137****Transmitted by the expert from the United Kingdom of Great Britain
and Northern Ireland^{*,**}****Introduction**

1. This document aims at inviting the explosives working group to review the text of PP70 of Packing Instruction P137, to clarify the intent and the applicability of the provision.

Background

2. Recently the packaging expert in the United Kingdom received a routine application for a new combination package containing explosive articles. Following the established procedures in the United Kingdom, confirmation of classification was sought and the packaging employed checked against the allocated packing instruction. In this instance the packing instruction was P137 with PP70. However, the text of PP70 was found to be confusing and open to interpretation. Earlier packaging approvals in the United Kingdom demonstrated some of these different interpretations. The United Kingdom would like to invite the explosives working group to review the text of P137 PP70 to remove the areas of confusion and interpretation.

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** This document was scheduled for publication after the standard publication date owing to circumstances (CORVID-19) beyond the submitter's control.

Identified issues

3. As an aid to the review the following issues have been identified in the text of PP70 (reproduced below in full for assistance):

“**PP70** For UN Nos. 0059, 0439, 0440 and 0441, when the shaped charges are packed singly, the conical cavity shall face downwards and the package shall be marked in accordance with 5.2.1.7.1. When the shaped charges are packed in pairs, the conical cavities shall face inwards to minimise the jetting effect in the event of accidental initiation.”

- (a) Is the ‘packed singly’ referring to the outer packaging or to the inner packaging?
- (b) Same question as in (a) above applies to ‘packed in pairs’?
- (c) In pairs cavities shall face inwards. Does this mean:
 - (i) Towards each other?
 - (ii) As a pair towards the centre of the outer packaging?
 - (iii) Away from the nearest face of the outer packaging?
- (d) Given that reference is only made to singles or pairs can either the outer packaging or the inner packaging have more than two charges?
- (e) If the consensus answer to question (d) above is that pairs relates to the inner packaging, does an outer packaging consisting of 12 pairs and one single charge need the orientation mark based on the singly packed charge?
- (f) If an inner packaging is fitted out with dividers so that charges are separate within the inner and multiple inner packagings are placed in an outer one, how should the inner packages be orientated:
 - (i) Downwards since each charge is packed singly?
 - (ii) With each inner packaging paired so that the charges in the pair face each other?
- (g) Given that charges come in many shapes and sizes and that the packing instruction allows for a complete range of material to be used for the outer packaging should the text become conditional based on?
 - (i) The net explosive quantity of any charge?
 - (ii) The output power of the charge?
 - (iii) The type of material used for the outer packaging?
- (h) UN 0440 and 0441 are both 1.4 classifications which, by definition, did not display any significant effects outside the package when classification tested, should these UN numbers be dis-associated from this special provision?
 - (i) Ideally classification will be based on testing packagings as prepared for transport. It is certainly acceptable practice to modify or change packaging or the arrangements within a packaging, to mitigate the hazards to obtain a lower classification. The issuing of classifications based on packaging arrangements, which may or may not be in accordance with the special provision depending on interpretation, is not ideal but these packages have a proven safety record in transport. Therefore, should PP70 be deleted in its entirety as it has no impact on safety?

4. Since, because of this review, there may be proposals that relate to the packaging, the packaging expert from the United Kingdom would be willing to assist the explosives working group in the drafting of any revised text.
