

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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Item 2 (f) of the provisional agenda

Explosives and related matters: miscellaneous

Special Packing Provision PP70

Transmitted by the expert from the United Kingdom

Introduction

1. Special packing provision PP70 describes a recognised technique for mitigating the explosive effects of shaped charges should they initiate during transport.
2. This Special packing provision is limited in its application to a small sub-set of all of the explosives articles that can contain shaped charges.
3. The expert from the United Kingdom asks if, in the opinion of the members of the explosives working group, there would be value in this special provision being more applied more widely to other explosives articles containing shaped charges.

Discussion

4. Special packing provision PP70 states:-
“For UN Nos. 0059, 0439, 0440 and 0441, when the shaped charges are packed singly, the conical cavity shall face downwards and the package marked “THIS SIDE UP”. When the shaped charges are packed in pairs, the conical cavities shall face inwards to minimize the jetting effect in the event of accidental initiation.”
5. This Special packing provision only applies to articles with the proper shipping name “Charges Shaped, without detonators” And the UN Nos. 0059, 0439, 0440 and 0441 packed under Packing Instruction P137.
6. A wide range of other explosive articles contain shaped charges. These include articles with the proper shipping names
 - Cartridges for Weapons with bursting charge
 - BOMBS with bursting charge
 - CHARGES, DEMOLITION
 - MINES with bursting charge
 - PROJECTILES with bursting charge
 - ROCKETS with bursting charge
 - WARHEADS, TORPEDO with bursting charge

- CHARGES, SHAPED, FLEXIBLE LINEAR
- GRENADES, hand or rifle with bursting charge
- WARHEADS, ROCKET with bursting charge
- TORPEDOES with bursting charge

7. The articles likely to contain shaped charges that are not subject to PP70 are generally required to be packaged according to the requirements of Packing Instructions P101, P130 and P138.

8. The expert from the United Kingdom also notes that PP70 states that “when the shaped charges are packed singly, the conical cavity shall face downwards and the package marked “THIS SIDE UP”” rather than referring to the provisions relating to Orientation Arrows at 5.2.1.7 of the model regulations.

Proposal

9. The members of the explosives working group consider whether the principles of the recognised mitigatory effect of PP70 should be applied, whenever reasonably practicable, to a wider range of explosives articles than those described by UN Nos. 0059, 0439, 0440 and 0441 that are packed under Packing Instruction P137.

10. If the members of the working group are in agreement with respect to the wider application of the principles of PP70 the Expert from the United Kingdom should prepare a Working Document for the 41st Session of ECOSOC Sub-Committee of Experts on the Transport of Dangerous Goods proposing the application of PP70 to a wider range of explosives articles and Packing Instructions and identifying the necessary consequential changes.

11. The members of the working group consider whether PP70 should be revised to read:-

“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 minimize the jetting effect in the event of accidental initiation.”

And

a fourth indent

“- packages for explosives which attract PP70 in the relevant packing instruction”
added to 5.2.1.7.1 of the Model Regulations.
