



**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-second session**

Geneva, 27 November-6 December 2017

Item 2 (a) of the provisional agenda

**Explosives and related matters:
review of test series 6****Disruption criterion of Test Series 6(d)****Transmitted by the Sporting Arms and Ammunition Manufacturers'
Institute (SAAMI)*****Introduction**

1. SAAMI requests action by the Working Group on Explosives to determine the necessity and appropriateness of the Test Series 6(d) criterion for disruption of a package.

Discussion

2. Test series 6(d) lists four criteria which are intended to be indicative of "hazardous effects" extending beyond the package:

- (a) Denting or perforation of the witness plate beneath the package;
- (b) A flash or flame that ignites an adjacent material such as a sheet of 80 ± 3 g/m² paper at a distance of 25 cm from the package;
- (c) Disruption of the package causing projection of the explosives contents; or
- (d) A projection which passes completely through the packaging (a projection or fragment).

* In accordance with the programme of work of the Sub-Committee for 2017-2018 approved by the Committee at its eighth session (see ST/SG/AC.10/C.3/100, paragraph 98 and ST/SG/AC.10/44, paragraph 14)

3. A review of these four criteria shows that some established hazardous effects include impacts to a witness plate, a flame capable of igniting adjacent materials, and a projection which leaves the package. In the case of a projection, the term “hazardous effect” is not defined and is subject to interpretation. It is common for competent authorities to use judgment to allow some minor non-hazardous projections outside the package.

4. In the initiative to create the 6(d) test in the Manual of Tests and Criteria, a justification was that there was no test to implement the text of the definition for Division 1.4, Compatibility Group S, which is defined in the Model Regulations, Section 2.1.2.1.1 as:

“Substance or article so packed or designed that any hazardous effects arising from accidental functioning are confined within the package unless the package has been degraded by fire, in which case all blast or projection effects are limited to the extent that they do not significantly hinder or prohibit fire fighting or other emergency response efforts in the immediate vicinity of the package.”

It was argued that this is a two-part definition, and that Test Series 6(c) implemented the second scenario where the package has been degraded by fire, but there was no test to implement the first scenario (underlined above) that “any hazardous effects arising from accidental functioning are confined within the package”. Test Series 6(d) test was adopted to address this potential gap.

5. This proposal addresses the criterion “(c) Disruption of the package causing projection of the explosives contents;”. The concept is that un-initiated explosives may present a hazard for a secondary incident during emergency response, similar to a spill. In SAAMI’s opinion, this is a novel concept not included in the text of the Model Regulations, nor in the justification for including Test Series 6(d). We can foresee a proposal at some stage to put text in the Model Regulations to cover this criterion which otherwise is unnecessary. We propose instead to remove this criterion.

Proposal

6. SAAMI proposes to delete the “disruption” criterion of Test Series 6(d), subject to discussion within the Working Group on Explosives.
