

---

## Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals

3 June 2021

### Sub-Committee of Experts on the Transport of Dangerous Goods

#### Fifty-eighth session

Geneva, 28 June-2 July 2021

Item 2 (a) of the provisional agenda

**Explosives and related matters: review of test series 6**

## **Report of the 6d-ICG Meeting of 20 May 2021 related to ST/SG/AC.10/C.3/2021/14**

**Transmitted by the Sporting Arms & Ammunition Manufacturers'  
Institute (SAAMI) on behalf of the 6(d) Test Informal Correspondence  
Group (6d-ICG)**

### **Introduction**

1. Having submitted the status report in ST/SG/AC.10/C.3/2021/14, the 6d-ICG (hereafter in this document, ICG) met on May 20<sup>th</sup> to progress the work further in advance of the 58<sup>th</sup> session. It was determined to have a discussion in principle of the points in paragraph 5 of the working document.

### **Discussion**

2. SAAMI provided a historical overview of the development of the test. This ranged from the original purpose of the test to enhance packaging of detonating explosives that did not fully function in a fire, to the current more conservative approach, that depending on interpretation, could exclude first aid type injuries when the package is not degraded by fire.

3. The original purpose of the test was to address the part of the 1.4S definition which mentions that in the case of accidental functioning, hazardous effects are to be confined within the package (more or less). No test addressed this, as the 6(c) test only evaluated the behaviour in a fire. Furthermore, articles with secondary explosives in a fire may only combust as opposed to function, but functioning could cause permanent injury and perhaps a fatality. Most of the examined detonating articles with secondary explosives were reclassified to 1.4D entries; it was not possible to enhance packaging to maintain a 1.4S classification. This was one of the main results of adopting the 6(d) test.

4. The ICG examined the purpose of the 6(d) test. It was unanimously agreed that the purpose is to protect people, and that this protection applies to first responders or transportation workers in normal clothing and is not limited to fire fighters with protective clothing and equipment. It was further concluded that this level of protection also sufficiently protects objects. With respect to the last point, one member wished further time to consider.

5. Some members in the ICG wondered whether the definition of Compatibility Group S should be amended. It was determined that this is not necessary, and the meaning of "hazardous effects" is the essence of the issue.

6. With respect to “hazardous effects”, there appears to be agreement by a majority that “hazardous effects” allows some effects outside of the packaging. Most in the group liked the concept known as “walk-away factor”, the ability to walk away from an incident. This is compared to 1.4 (other than S) explosives which may cause permanent impairment.

7. A majority of the group is concerned that if no (or almost no) effects are allowed, it could have unintended consequences on existing classifications. For example, a current criterion allows a package to emit flame provided it does not ignite paper 20 cm away, and this could cause some moderate amount of injury commensurate with other common risks, e.g., sunburn or second-degree burns. A literal interpretation that hazardous effects of any magnitude are prohibited could include smoke emission of any amount.

8. It is understood that the current test is not reflective of all 1.4S, and applying it would remove many dangerous goods from the classification. It may be better to focus on acceptable effects versus the ambiguous hazardous effects.

9. The level of acceptable effects could be derived based on quantifying data and industry statistics. Some members undertook to bring back examples to the ICG.

10. The issue of safety devices was raised. It was agreed that this is a unique application which is appropriate and will not be revisited.

## **Future Meetings**

11. The next meeting on the subject will take place 14 - 18 June 2021 in the Explosives Working Group (EWG). There the positions may be more formally recorded than in the ICG. Input on the matters of principle is requested from delegations in the subsequent plenary session from 28 June to 2 July 2021.

12. Depending on the results of the plenary session, an official document for decision making may be submitted for the December session. One or more ICG meetings might occur in the interim. It is the desire of the chairs to complete the work this biennium, if possible.

---