

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

3 June 2010

Thirty-seventh session

Geneva, 21–30 June 2010

Item 2 of the provisional agenda

Explosives and related matters

Comments on ST/SG/AC.10/C.3/2010/29 (USA) Criteria for excluding articles from Class 1

Transmitted by the Expert from the United Kingdom

Introduction

1. The expert from the United States of America has proposed criteria for classifying an article as non-explosive under the general guidance provided in Section 2.1.1.1 (b) of the Model Regulations (ST/SG/AC.10/C.3/2010/29). This part of the definition of class 1 substances and articles includes within it an exemption from this definition for those devices "*containing explosive substances in such quantity or of such a character that their inadvertent or accidental ignition or initiation during transport shall not cause any effect external to the device either by projection, fire, smoke, heat or loud noise*".

Discussion

2. The expert from the United Kingdom welcomes this paper from the expert from the United States of America and makes the following comments as a further contribution to the discussions on the criteria for excluding devices from Class 1.

General Comments on exclusion from Class 1

3. The Sub-Committee will recall that the expert from the United Kingdom submitted an informal paper, INF 30, for the June 2009 session (<http://www.unece.org/trans/doc/2009/ac10c3/UN-SCETDG-35-INF30e.doc>) which identified areas where he believed further clarification and analysis would be required if robust criteria for excluding devices from Class 1 were to be developed.

4. The expert from the United Kingdom suggests that if criteria for excluding devices from Class 1 are to be seen as being robust and seen as ensuring that the transport hazards associated with such articles are properly recognized, then criteria and tests need to be capable of clearly describing and defining the limits of those hazards.

Comments on ST/SG/AC.10/C.3/2010/29

5. The expert from the United States of America includes text for a new sub-section 2.1.3.6.4 to the Model Regulations but the United Kingdom has not been able identify

reference to Figure 10.3 of the Manual of Tests and Criteria (as amended). The United Kingdom believes that it is necessary that any proposal for a new 2.1.3.6.4 includes a requirement that any article is provisionally accepted into Class 1 and then excluded from Class 1 by performing Test Series 6 and applying any criteria agreed as a new 2.1.3.6.4.

6. The United States of America's paper does not address inadvertent or accidental ignition or initiation of an article during transport. The United Kingdom refers members of the Sub-Committee and the explosives working group to its report at the Thirty-fifth Session (<http://www.unece.org/trans/doc/2009/ac10c3/UN-SCETDG-35-INF57e.doc>) and believes that it is necessary that any proposal for a new 2.1.3.6.4 consider the inclusion of Test 6 (d) before these articles are subject to the individual function test. This would address the "flame" aspect of 2.1.1.1.

7. The results of the testing of articles that are presented are such that the noise levels and temperatures recorded were significantly below those currently proposed as threshold values for excluding articles from Class 1. This suggests that it is likely that threshold values for harm criteria can be significantly reduced (e.g. to 135 dB(C) for peak sound level) thereby increasing margins of safety during transport whilst ensuring that articles can meet criteria for exclusion from Class 1.

8. Whilst welcoming the additional testing, reported in the Annex to the paper, the expert from the UK notes that 4 of the 11 items listed comprise safety restraint systems which could be subject to special provision 280 and that 5 of the 11 items could have met the alternative criteria based on United Kingdom's MOD requirements for excluding devices outside Class 1 previously submitted as an informal paper (<http://unece.org/trans/doc/2008/ac10c3/UN-SCETDG-33-INF43e.doc>) and which we believe should also be considered.

9. Finally the expert from the United Kingdom reminds the working group of its comments in its report at the Thirty-fifth Session, see informal document INF 57, which identified the relevance of hazards arising out of "separable components" (paragraph 5 (b)); the hazards associated with smoke (e.g. flammability, toxicity and/or effect on the capabilities and behaviours of the persons present on the transport vehicle) (paragraph 5 (d)); and the acceptability of the consequences of particular articles or types of articles no longer being subject to regulation (paragraph 6).
