

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

Thirty-sixth session
Geneva, 30 November to 9 December 2009
Item 2 of the provisional agenda

EXPLOSIVES AND RELATED MATTERS

Review of the UN Test Series 7

Report of the Working Group

Transmitted by the Chairman of the Intersessional Working Group

Introduction

1. The Sub-Committee will recall that at the 35th session of the UN Sub-Committee of Experts on the Transport of Dangerous Goods, June 2009, the expert from the United Kingdom produced UN/SCETDG/35/INF.41 and UN/SCETDG/35/INF.42 informing the Sub-Committee of a Test Series 7 Intersessional Working Group (IWG) Meeting held in the City of Bath on the 17th and 18th March 2009. The latter paper identified an initial set of proposals for further discussion within UN Sub-Committee of Experts on the Transport of Dangerous Goods, and specifically with their Explosives Working Group.

2. To develop proposals further another Intersessional Working Group Meeting was hosted by the United Kingdom's Ministry of Defence. Attendees representing France, Romania, Qatar, the United States of America and the United Kingdom were present. This information paper is a brief summary of the discussions of the Intersessional Working Group Meeting.

Summary of Progress to Date

3. Following discussion of informal documents UN/SCETDG/35/INF.41 and UN/SCETDG/35/INF.42 at the 35th session of the UN Sub-Committee of Experts on the Transport of Dangerous Goods and agreement in principle that this effort should continue, a further IWG Meeting was held in Bath on the 20 and 21 October 2009. The objective of this meeting was to discuss how proposals made at the June meeting could be introduced into the 'The Manual of Tests and Criteria' (ST/SG/AC.10/11/Rev.4). A re-written Section 17 of the aforementioned manual was produced and circulated prior to the meeting to facilitate discussions.

Main Topics of discussion

4. The main topics under discussion were:
- (a) Procedure for identifying candidates for Division 1.6

The IWG proposed changes to the procedure for determining candidates for Division 1.6. It is recognised that there is need to develop an assessment procedure which considers the article design and its role in reducing or eliminating the risk posed by energetic substances contained therein. The new proposed procedure uses this concept to allow inclusion of explosives substances which have not met the current Extremely Insensitive Detonating Substance (EIDS) requirements. Appropriate controls are proposed to insure that articles remain “extremely insensitive”. Applying the proposed procedure, in conjunction with any potentially sensitive explosive components always being present during the articles tests, and even being specifically targeted in certain trials, shall ensure a negligible probability of accidental initiation or propagation of a Hazard Division 1.6 article is maintained.

(b) Changes to the article tests

The IWG reviewed how proposed changes to article tests could be introduced into Section 17 of ‘The Manual of Tests and Criteria’. Agreement within the group was reached on most of the proposed changes. However, it was recognised that further discussion was needed to agree a position on mode of initiation in the Series 7 type (k) Article Stack Test, and on the test criteria for the type 7 (j) Article Bullet Impact Test, and to finalize a proposed additional type 7 (l) Article Fragment Impact Test. The latter test is to determine the response of an article in transportation configuration to a localised shock input representative of a fragment strike typical of that produced from a detonating article.

(c) Response definitions

The IWG recognised the need to include a more detailed set of response levels to aid in the assessment of the results of UN article tests types 7(g) through to 7(l). The proposed response levels detail the observed or measure effects for response levels detonation, partial detonation, explosion, deflagration, burning, and ‘no reaction’ and will help to ensure consistency in their assignment. It was noted that these descriptors are referred to in the UN test criteria at various points throughout the UN publications, but not defined in detail.

(d) Proposals for the July Sub- Committee meeting

It was agreed that the chairman of the IWG would prepare proposals for consideration of the UNSCOE EWG in June. This would include a proposed set of words for consideration and a list of consequential amendments shall also be prepared to complete the change process.

(e) A further IWG meeting early in 2010 may be necessary.

Participation at UN Sub-Committee of Experts on the Transport of Dangerous Goods 21st to 30th June 2010.

5. The United Kingdom chairman of the Intersessional working group would be present at the June 2010 session in Geneva as part of the United Kingdom delegation to present the proposals and to participate in the discussions both in the explosives working group and in the plenary meeting.
