

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

17 June 2013

Forty-third session

Geneva, 24–28 June 2013

Item 2 (c) of the provisional agenda

**Explosives and related matters: review of tests in parts I and II
of the Manual of Tests and Criteria**

Proposals for Division 1.6 and Potential Series 7 response descriptors utility in assessing Series 6 tests

Transmitted by the expert from the United States of America

Introduction

1. At the 37th session of the UN TDG Sub-committee (TDG), the Working Group on Explosives (EWG) addressed the historic lack of articles assigned to Division 1.6 by supporting proposed changes to the UN Manual of Tests and Criteria¹ (MTC) test series 7 (TS7) procedures, and also noted that there may be some merit to examining the response descriptors for use in other test series in the future².

Discussion

2. It was recently noticed that a slight disconnect remains between the United Nations Recommendations on the transport of dangerous goods, Model Regulations (MR)³ for Division 1.6 and TS7 in the MTC. Paragraph 2.1.1.4(f) of the MR, for example, states that Division 1.6 articles “contain only extremely insensitive substances,” whereas paragraph 10.4.3.6 of MTC cites that “articles predominantly containing extremely insensitive substances may be assigned to Division 1.6.” The procedure for determining required substance testing for Division 1.6 articles is provided within TS7. Further consequential adjustments to the MR to achieve consistency with the MTC are proposed in paragraphs 4 and 5 below for the members of the explosives working group to consider.

3. The TS7 response descriptors, Appendix 8 of the MTC, were developed to provide more detailed guidance for improving international consistency by competent authorities in specifically categorizing the response levels exhibited by articles undergoing Series 7 testing. The 7 (g) 1.6 article (or component level) external fire test and the 6 (c) external fire test use practically the same test procedure, as do the 7 (k) 1.6 article stack test and the 6 (b) stack test. Thus, those pairs of tests would be expected to result in very similar outcomes. The potential relevancy and utility of applying the Series 7 response descriptors in assessing other test results, such as the similar Series 6 tests, was previously recognized

¹ ST/SG/AC.10/11/Rev.5/Amend.1

² UN/SCETDG/37/INF.73, para. 7

³ ST/SG/AC.10/Rev.17 (Vol. 1)

and discussed by members of the explosives working group, as recorded in the earlier report transmitted by the chairman of the EWG⁴.

Proposals

4. Amend the Model Regulations, Volume 1, Part 2, Chapter 2.1, paragraph 2.1.1.4(f), to read:

“(f) Division 1.6 Extremely insensitive articles which do not have a mass explosion hazard

This division comprises articles which **predominantly** contain ~~only~~ extremely insensitive substances and which demonstrate a negligible probability of accidental initiation or propagation.

NOTE: The risk from articles of Division 1.6 is limited to the explosion of a single article.”

5. Amend the Model Regulations, Volume 1, Part 2, Chapter 2.1, paragraph 2.1.2.1.1, in the 1.6N classification code row of the table, within the “Description of substance or article to be classed” column of the table, to read:

“Articles **predominantly** containing ~~only~~ extremely insensitive substances”

6. In order to provide more consistent international interpretation of Test Series 6 outcomes, we solicit input from the members of the explosives working group as to whether and how Appendix 8 response descriptors might be applied to TS6, perhaps as a new Section 16.3.2, with language that mirrors that found in Section 17.3.5.

7. If the members of the EWG agree to pursue the work identified in paragraph 6 above, the expert from the United States of America will prepare a working document for consideration by the EWG at its next meeting to be held during the TDG Sub-Committee’s 45th session.

⁴ UN/SCETDG/37/INF.73, para. 7