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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

Forty-sixth session
Geneva, 1 – 9 December 2014
Item 2 of the provisional agenda
Recommendations made by the Sub-Committee on its forty-third, forty-fourth and forty-fifth sessions and pending issues

Consolidated list of adopted texts

Note by the secretariat[1]

This document contains draft amendments to the Recommendations on the Transport of Dangerous Goods, Model Regulations (ST/SG/AC.10/1/Rev.18) and to the Manual of Tests and Criteria (ST/SG/AC.10/11/Rev.5) which were adopted at the forty-fifth session on the basis of informal documents that were not translated in all working languages and which, therefore, need to be carefully checked and confirmed.

[1] In accordance with the programme of work of the Sub-Committee for 2013-2014 approved by the Committee at its sixth session (refer to ST/SG/AC.10/C.3/84, para. 86 and ST/SG/AC.10/40, para. 14).

Part I

Draft amendments to the 18th revised edition of the United Nations Recommendations on the Transport of Dangerous Goods, Model Regulations

Chapter 2.1

2.1.3 Add a new paragraph 2.1.3.7 to read as follows:

"2.1.3.7 *Classification documentation*

2.1.3.7.1 A competent authority assigning an article or substance into Class 1 should confirm with the applicant that classification in writing.

2.1.3.7.2 A competent authority classification document may be in any form and may consist of more than one page, provided pages are numbered consecutively. The document should have a unique reference.

2.1.3.7.3 The information provided shall be easy to identify, legible and durable.

2.1.3.7.4 Examples of the information that may be provided in the classification documents are as follows:

(a) The name of the competent authority and the provisions in national legislation under which it is granted its authority;

(b) The modal or national regulations for which the classification document is applicable;

(c) Confirmation that the classification has been approved, made or agreed in accordance with the United Nations Recommendations on the Transport of Dangerous Goods or the relevant modal regulations;

(d) The name and address of the person in law to which the classification has been assigned and any company registration which uniquely identifies a company or other body corporate under national legislation;

(e) The name under which the explosives will be placed onto the market or otherwise supplied for transport;

(f) The Proper Shipping Name, UN number, Class, Hazard Division and corresponding compatibility group of the explosives;

(g) Where appropriate, the maximum net explosive mass of the package or article;

(h) The name, signature, stamp, seal or other identification of the person authorised by the competent authority to issue the classification document is clearly visible;

(i) Where safety in transport or the hazard division is assessed as being dependant upon the packaging, the packaging mark or a description of the permitted:

- Inner packagings

- Intermediate packagings

- Outer packagings

(j) The classification document states the part number, stock number or other identifying reference under which the explosives will be placed onto the market or otherwise supplied for transport;

(k) The name and address of the person in law who manufactured the explosives and any company registration which uniquely identifies a company or other body corporate under national legislation;

(l) Any additional information regarding the applicable packing instruction and special packing provisions where appropriate;

(m) The basis for assigning the classification, i.e. whether on the basis of test results, default for fireworks, analogy with classified explosive, by definition from the Dangerous Goods list etc.;

(n) Any special conditions or limitations that the competent authority has identified as relevant to the safety for transport of the explosives, the communication of the hazard and international transport;

(o) The expiry date of the classification document is given where the competent authority considers one to be appropriate.".

(Reference documents: Informal documents INF.10 as amended and INF.61/Add.1 of the forty-fifth session)

Part II

Draft amendments to the 5th revised edition of the United Nations Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria

Section 13

13.6.1 In the title, replace "3 (c)" by "3 (c) (i)" and amend the table of contents consequently.

Section 16

16.6 Add new paragraph 16.6.1.3.9 to read as follows:

"16.6.1.3.9 For candidates to cartridges, small arms (UN No. 0012), this test can be augmented or replaced by the specialised measurement of the energy of projections as described in Appendix 9. This applies to circumstances where the dominant hazard is a projection hazard, for example as known from previous testing of similar explosive articles.".

(Reference document: informal document INF.61/Add.2 of the forty-fifth session)

16.6.1.4.6 Amend to read as follows:

"16.6.1.4.6 If none of the events occur which would require the product to be assigned to Division 1.1, 1.2, 1.3 or 1.4 other than Compatibility Group S (see Box 32 of Figure 10.3), then the product is assigned to Division 1.4 Compatibility Group S, unless special provision 347 of Chapter 3.3 of the Model Regulations applies. For candidates to Cartridges, small arms (UN No. 0012), evidence of projections with a kinetic energy not exceeding 8 J as determined by the test procedure in Appendix 9 may be used to assign the product to Compatibility Group S.".

(Reference documents: ST/SG/AC.10/C.3/86/Add.1 and informal document INF.61/Add.2 of the forty-fifth session)

Add a new Appendix 9 to read as follows:

"**Appendix 9**

Ballistic projection energy test for cartridges, small arms (UN No. 0012)

1. Introduction

This test is conducted with candidates for Cartridges, small arms (UN No. 0012) with individual cartridges and is used to determine the maximum possible energy of a projection that could be generated upon functioning in transport. The test takes worst-case conditions into account, since no packaging attenuates the energy of the projectile and the cartridge is supported by a fixed anvil block. It is not necessary to reverse the test set-up to a situation where the cartridge is propelled, because experimentation shows that energy transfer from the propellant to the bullet is equal or more than that to the case.

2. Apparatus and materials

The following items are required:

(a) A suitable actuator to initiate ammunition; and

(b) A ballistic pendulum with an interception device for the projectile for determining the energy, or a high-speed camera and a background with a scale to determine the velocity of the projectile.

3. Procedure

The test is performed on single cartridges. The cartridge is actuated as designed by means of the primer cap and a firing pin. The cartridge, actuator and measuring device are arranged along the flight path in such a way that angle errors are minimized. The test is performed three times.

4. Test criteria and method of assessing the results

The energy of the projectile is calculated either from the maximum displacement of the ballistic pendulum or from the velocity (v) determined by the high-speed camera taking the mass (m) of the projectile into account. The value of energy (E) can be calculated from the equation:

$$E = ½mv^2$$

If the energy of the projectile does not exceed 8 J in any of the test runs, the article, in the appropriate packaging in accordance with Chapter 3.2 of the Model Regulations, may be assigned to Cartridges, small arms (UN No. 0012).”.

(Reference document: informal document INF.61/Add.2 of the forty-fifth session)