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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

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

Revision of Section 16.6.1.4.8 of Manual of Tests and Criteria

Transmitted by the expert from China*

Introduction

- 1. When using in the Manual of Tests and Criteria the equation in 16.6.1.4.8 below Table 16.2 to calculate thermal flux, the result is erroneous. The calculated result is 1000 times the correct value. This error is caused by an incorrect unit of the parameter given in the equation.
- 2. In the same equation, the parameter "*observed burn time*" is denoted by the symbol "t", while the symbol "T" is used in the description of parameters.

Proposal

3. The experts from China suggest correcting the unit of parameters in the equation for thermal flux in 16.6.1.4.8 in the Manual of Tests and Criteria, and to use the same symbol for the "observed burn time" in both the equation and the description. Of the two options proposed below, option 1 is recommended.

Option 1

4. Change the description of parameters as follows (new text in **bold underlined**, deleted text in **strikethrough**):

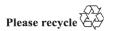
"F= thermal flux in \mathbf{k} W/m²;

C=constant=0.33;

E= total energy content in joules;

R = distance from fire to exposed position in meters;

Tt = observed burn time in seconds"



^{*} A/75/6 (Sect.20), para. 20.51

Option 2

5. Change the description of parameters as follows (new text in **bold underlined**, deleted text in **strikethrough**):

"F= thermal flux in kW/m^2 ;

C=constant=0.33;

E= total energy content in **kJ**joules;

R = distance from fire to exposed position in meters;

 $\mathbf{T}\underline{\mathbf{t}} = \text{observed burn time in seconds"}$