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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-ninth session**

Geneva, 27 June – 6 July 2016

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****Test results relating to the Koenen test****Transmitted by the expert from Germany<sup>1</sup>**

1. The expert from Germany proposed during the forty-seventh session of the TDG Sub-Committee to amend the quality requirement of the steel tube in the Koenen Test (ST/SG/AC.10/C.3/2015/4).
2. During the forty-seventh session the TDG Sub-Committee agreed that the expert from Germany continue research into replacement materials for the unavailable tube steel and prepare a revised proposal which consider the comments of the working group on explosives.
3. The United Kingdom, CEFIC and IME suggested running comparison tests on pharmaceutical and ANE samples.
4. Because the expert of Germany did not get any further test results, Germany will execute comparison test with ANE samples until the forty-ninth session of the TDG Sub-Committee. The test results will be presented in an informal paper.
5. The IGUS EOS Working Group has asked in the past companies and competent authorities to carry out tests on selected substances using former steel tubes (bursting pressure 30 MPa ± 3 MPa) on the one hand and using the new steel tubes (bursting pressure between 25.2 MPa and 25.9 MPa) on the other hand. The test results were presented in the annex of working paper (ST/SG/AC.10/C.3/2015/4). The observed effects on the steel tubes

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<sup>1</sup> In accordance with the programme of work of the Sub-Committee for 2015–2016 approved by the Committee at its seventh session (see ST/SG/AC.10/C.3/92, paragraph 95 and ST/SG/AC.10/42, para. 15).

with a bursting pressure between 25.2 MPa and 25.9 MPa are comparable to the effects as observed before using the former steel tube quality.

## **Proposal**

6. Based on these test results and subject to the test results on ANE samples the IGUS EOS Working Group proposes, through the expert from Germany, the following amendments:

(a) To change the steel tube bursting pressure criteria in terms of quality control to  $28 \text{ MPa} \pm 4 \text{ MPa}$ ;

(b) Consequently, to amend the text in letter (d) in section 11 (11.5.1.2.1), section 12 (12.5.1.2.1), section 18 (18.6.1.2.1) and section 25 (25.4.1.2.1) to read as follows:

“(d) The bursting pressure as determined by quasi-static load through an incompressible fluid shall be  $28 \text{ MPa} \pm 4 \text{ MPa}$ ”.

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