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**COMMITTEE OF EXPERTS ON THE
TRANSPORT OF DANGEROUS GOODS**

**Sub-Committee of Experts on the
Transport of Dangerous Goods**
(Fifteenth session,
Geneva, 29 June-10 July 1998,
agenda item 6 (b))

EXPLOSIVES (CLASS 1)

Koenen test

Submitted by the Expert from Germany

Background

At the last session of the Committee, CEFIC transmitted an informal document (INF.40) regarding the calibration of the heating rate of the Koenen test. At the OECD-IGUS EOS working group meeting, 10-13 March 1997 at Socorro, New Mexico, United States of America, it was agreed that amendments were required to the Manual of Tests and Criteria. All versions of the Koenen test (UN Manual, EC A.14) should have the same heating rate and this should be as in the old version of the test. The best way to achieve this was to alter the 50 - 250 °C measuring range given in the Manual of Tests and Criteria to be the same, 135 - 285 °C, as in the EC A.14 test prescription.

It was agreed that Germany would propose amendments to the UN Recommendations on the Transport of Dangerous Goods.

Proposal

Amend existing paragraphs 11.5.1.2.2, 12.5.1.2.2 and 25.4.1.2.2 (UN Manual of Tests and Criteria - ST/SG/AC.10/11/Rev.2) to read (complete text):

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"Heating is provided by propane, from an industrial cylinder fitted with pressure regulator, via a flow meter and distributed by a manifold to the four burners. Other fuel gases may be used provided the specified heating rate is obtained. The gas pressure is regulated to give a heating rate of 3.3 ± 0.3 K/s when measured by the calibration procedure. Calibration involves heating a tube (fitted with a 1.5 mm orifice plate) filled with 27 cm³ of dibutyl phthalate. The time taken for the temperature of the liquid (measured with a 1 mm diameter thermocouple centrally placed 43 mm below the rim of the tube) to rise from 135 °C to 285 °C is recorded and the heating rate calculated."
