

**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**

**(Twenty-third session, 30 June -4 July 2003,
agenda item 4(c))**

PACKAGINGS

Drop tests of selected steel drums

Transmitted by the expert from Canada

1. Transport Canada (the Canadian Competent Authority on UN packaging) commissioned a series of drop tests of steel drums by an independent testing facility. The purpose of this project was to obtain insight on how well the Canadian approvals and quality assurance provisions for UN containers were working and how the consistency of drum drop performance compared to those made in other countries. Drums for testing were selected by the facility and were purchased from two Canadian, one United States and one United Kingdom manufacturer. The sample set from each manufacturer consisted of 50 drums. They were dropped in two orientations. An Up and Down Bruceton Staircase procedure was used to establish a mean failure height and standard deviation for each set of drums. The study found that there was a wide variation in the failure heights between manufacturers but good consistency between drums from the same manufacturer. Most drums tested exceeded the drop test requirements in the Model Regulations. However, one set of drums consistently failed at heights well below the required test heights, in fact failing to meet the required test height even once.

2. The executive summary of the report is posted on the Transport Canada website:

<http://www.tc.gc.ca/tdg/publications/menu.htm> in English and

<http://www.tc.gc.ca/tmd/publications/menu.htm> in French.

A written copy of the report may be purchased now and will be available shortly for electronic download.
