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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

**(Twenty-first session, 1-10 July 2002,
agenda item 6 (a))**

PACKAGINGS

**Comments on ST/SG/AC.10/C.3/2002/2 (Spain), -/2002/17 (United States of America)
and -/2002/50 (ICDM)**

Transmitted by the European Secretariat of Manufacturers of Light Metal Packaging (SEFEL)

**Proposals of Spain and United States of America for vibration testing
Proposal ST/SG/AC.10/C.3/2002/50 from ICDM**

SEFEL supports the document ST/SG/AC.10/C.3/2002/50 from ICDM concerning the proposal of Spain (ST/SG/AC.10/C.3/2002/2).

- We also lack, now as before, evidence that damage caused by vibrations has occurred in various countries in the past. Evidence of such cases of damage could be furnished neither by Spain nor by other countries.
- As no information exists on cases of vibration damage, neither Spain nor other countries have succeeded in developing a suitable vibration test for all packagings and all modes of transport.
- ICDM has rather pointed out, on the other hand, that it makes no sense to keep asking for new tests (like Spain) when it has not even been made sure that the existing elementary safety provisions (including, in particular, 6.1.1.4, 6.1.5.1.3, and 6.1.5.1.8) will be implemented. It cannot serve the purpose of safety if some countries comply with these UN safety provisions while others do not. Much rather, things are being turned upside down if sometimes minimum plate thicknesses, sometimes vibration tests, sometimes perforation tests, sometimes higher steel grades and sometimes puncture tests – are being demanded by these countries instead. The existing UN provisions have proven their value, provided they are applied precisely.

Proposal ST/SG/AC.10/C.3/2002/17 from the United States of America

The following comments are made by SEFEL against the proposal ST/SG/AC.10/C.3/2002/17 from the United States of America:

- In contrast to the current DOT regulations, the United States of America is proposing an additional design type testing vibration test. The United States of America is providing no evidence either that cases of vibration damage occurred in transport of dangerous goods in the past which might justify an additional design type test.

- Should the United States of America or other countries make evidence that accidents caused by vibration have occurred it should be seriously debated whether a vibration test should be implemented. The DOT regulations until now include a vibration standard which is being applied as a "capability test", i.e. packagings for dangerous goods have to be capable of complying with the requirements of that standard. Should a vibration test actually be adopted, then we see no necessity to do this in the form of an additional design type test with a uniform testing procedure for all packagings and all modes of transport, but we would advocate such a capability test.

A "capability test" could take into account both the individual type of packaging and the requirements of the different modes of transport. In contrast, the design type test would be a fixed and rigid procedure and does not allow any differentiation. It would further mean that for the control of the serial production according to 6.1.5.1.8 of the UN Recommendations all manufacturing companies would have to invest in adequate and expensive shaking equipment.

- The test method proposed by the United States of America is a shock test and has not much to do with a vibration test (e.g. as the Military Standard). Details can be taken from the study "Assessment of the US Vibration Standard Proposal for the UN Recommendations on the Transport of Dangerous Goods" which is a further SEFEL INF PAPER for the 21st session of the Sub-Committee of Experts on the Transport of Dangerous Goods. The DOT shock test amounts to destructive testing for some packagings because it clearly exceeds the strains caused by various transport carriers. Demolition of packagings by testing, however, cannot make sense in this matter. No vibration damage worth mentioning has occurred during transport of dangerous goods in light-gauge metal packagings so far.
