



**Economic and Social
Council**

Distr.
GENERAL

**TRANS/WP.15/1998/12
27 August 1998**

Original: ENGLISH

ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

**Working Party on the Transport
of Dangerous Goods**
**(Sixty-fifth session,
Geneva, 16-20 November 1998)**

APPENDIX B.1a: BATTERY-VEHICLES MARGINALS

Transmitted by the European Industrial Gases Association (EIGA)

1. Reasons for the proposal:

Ever since the publication of the January 1997 ADR operators of battery vehicles have been confronted with diverging interpretations of the provisions for those battery-vehicles consisting of elements that can be cylinders, tubes, pressure drums or bundles according to marginal 2211. The reasons for this unhappy situation are that:

no provisions for the design of the manifolding arrangement have been developed
the testing requirements have only be fixed for the elements and not for the rest of the
equipment

no clear distinction has been made between battery- vehicles and tank-vehicles

By amending the definition of "tank" in marginal 10014 it has been clarified that the testing requirements for battery vehicles whose elements are receptacles according to marginal 2211 (1), (2), (3) or (5) have to follow the rules applicable to receptacles. This is logical and appropriate and called for from a safety viewpoint.

The elements of a battery vehicle and their equipment are de facto checked on leak-tightness at each filling. A leaking battery-vehicle could not take the road. A formal additional leakproofness test witnessed by a testing and certifying body adds no value and is considered unnecessary.

There were no provisions for a transitional period foreseen. This is clearly an omission. Battery- vehicles taken into operation before 1 January 1997 must be allowed to operate to allow for adaptation to the new ADR provisions over a sufficiently long period.

2. Proposals

In **Marginal 10 605**, add a new paragraph as follows:

Battery-vehicles first registered before 1 July 1997 which do not comply with the requirements of Appendix B2 - marginal 220510 to 220517, may continue to be used until 31 December 2004.

In **Marginal 101 014** Definition of “tank” add the following sentence after battery-vehicle:

Individual receptacles of marginal 2211(1),(2),(3) and (5) and their assemblies are not considered to fall within the definition for tanks.

In **Marginal 211 230** add before the existing paragraph the following new paragraphs:

Piping shall be designed, constructed and installed so as to avoid the risk of damage due to thermal expansion and contraction, mechanical shock and vibration. All piping shall be of suitable metallic material. Welded pipe joints shall be used wherever possible.

Joints in copper tubing shall be brazed or have an equally strong metal union. The melting point of brazing materials shall be no lower than 525EC. The joints shall not decrease the strength of tubing as may happen when cutting threads.

Except for acetylene, the stress sigma of the manifolding arrangement at the test pressure of the receptacles shall not exceed 75% of the guaranteed yield stress of the material. The necessary wall thickness of the manifolding arrangement of battery vehicles for 1001 Acetylene shall be calculated according to an approved code of practice.

In **Marginal 211255** modify the third paragraph as follows:

(3) Battery-vehicles consisting of receptacles as defined in marginal 2211(1), (2) and (3) and cylinders as part of bundles of cylinders as defined in marginal 2211(5) and their equipment shall have periodic inspection according to marginal 2217

In **Marginal 211 258** replace the existing text with the following:

By derogation of 211 152, in the case of battery vehicles for the carriage of gases of 1, 2 or 4 the intermediate leakproof test is not required.

In **Marginal 211 215**, add the following new paragraph after the existing paragraph:

The opening(s) for filling shall be closed by caps. The leakproofness of the closures and equipment shall be verified by the consignor after the battery vehicle has been filled.
